Full wwPDB EM Validation Report ⓘ

Dec 11, 2022 – 08:42 am GMT

PDB ID	:	6S0X
EMDB ID	:	EMD-10076
Title	:	Erythromycin Resistant Staphylococcus aureus 70S ribosome (delta R88 A89 uL22) in complex with erythromycin.
Authors	:	Halfon, Y.; Matozv, D.; Eyal, Z.; Bashan, A.; Zimmerman, E.; Kjeldgaard, J.; Ingmer, H.; Yonath, A.
Deposited on	:	2019-06-18
Resolution	:	2.42 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

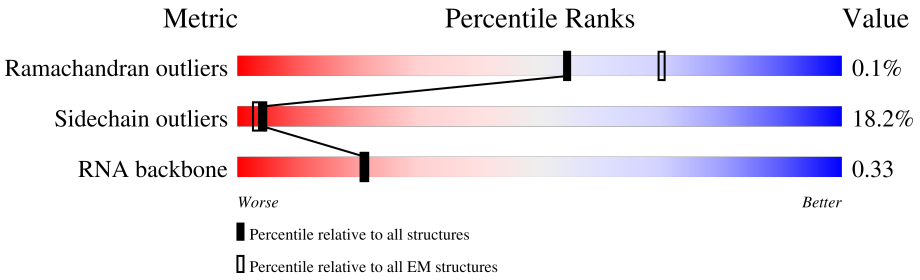
EMDB validation analysis	:	0.0.1.dev43
Mogul	:	1.8.4, CSD as541be (2020)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.3

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 2.42 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)
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826
RNA backbone	4643	859

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

Mol	Chain	Length	Quality of chain
1	A	2905	16% 15% 49% 35%
2	B	115	50% 41% 10%
3	C	274	86% 14%
4	D	215	87% 13%
5	E	206	85% 15%
6	F	173	60% 84% 16%
7	G	173	36% 88% 12%
8	H	145	84% 16%

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Mol	Chain	Length	Quality of chain
9	I	122	85% 14%
10	J	146	84% 15%
11	K	137	90% 10%
12	L	120	86% 14%
13	M	118	7% 87% 11%
14	N	114	90% 9%
15	O	116	90% 10%
16	P	102	79% 21%
17	Q	110	5% 94% 6%
18	R	89	82% 18%
19	S	103	8% 83% 17%
20	T	94	88% 12%
21	U	77	83% 17%
22	V	49	8% 94%
23	W	67	84% 16%
24	X	58	84% 16%
25	Y	59	98% 95% 5%
26	Z	48	33% 77% 23%
27	1	47	21% 87% 13%
28	2	43	93% 5%
29	3	64	84% 12%
30	4	37	89% 11%
31	a	1539	78% 46% 46% 8%
32	b	226	99% 81% 19%
33	c	202	99% 83% 17%

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Mol	Chain	Length	Quality of chain
34	d	198	97% 86% 13%
35	e	156	99% 87% 13%
36	f	95	100% 83% 17%
37	g	152	100% 85% 15%
38	h	131	95% 79% 20%
39	i	127	100% 88% 12%
40	j	97	99% 85% 15%
41	k	114	99% 88% 12%
42	l	135	90% 81% 19%
43	m	104	97% 83% 17%
44	n	60	95% 73% 27%
45	o	88	97% 75% 24%
46	p	89	92% 85% 15%
47	q	80	92% 79% 21%
48	r	54	100% 81% 17%
49	s	80	98% 81% 19%
50	t	81	96% 90% 10%
51	u	52	100% 85% 15%
52	v	162	99% 76% 24%

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
53	ERY	A	3001	X	-	-	-

2 Entry composition (i)

There are 53 unique types of molecules in this entry. The entry contains 140672 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 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
1	A	2905	62277	27803	11387	20182	2905	0	0

- Molecule 2 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
2	B	115	2445	1094	436	801	114	0	0

- Molecule 3 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	C	274	2090	1301	415	369	5	0	0

- Molecule 4 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	D	215	1627	1018	299	305	5	0	0

- Molecule 5 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	E	206	1572	986	288	296	2	0	0

- Molecule 6 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	F	173	1315	831	225	253	6	0	0

- Molecule 7 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	G	173	Total	C	N	O	S	0	0
			1248	780	236	229	3		

- Molecule 8 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	H	145	Total	C	N	O	S	0	0
			1149	717	211	218	3		

- Molecule 9 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	I	122	Total	C	N	O	S	0	0
			918	572	174	168	4		

- Molecule 10 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	J	146	Total	C	N	O	S	0	0
			1086	674	214	197	1		

- Molecule 11 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	K	137	Total	C	N	O	S	0	0
			1079	694	204	177	4		

- Molecule 12 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	L	120	Total	C	N	O	S	0	0
			932	576	182	173	1		

- Molecule 13 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				AltConf	Trace
13	M	118	Total	C	N	O	0	0
			883	552	173	158		

- Molecule 14 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms				AltConf	Trace
14	N	114	Total 889	C 563	N 175	O 151	0	0

- Molecule 15 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	O	116	Total 943	C 593	N 189	O 157	S 4	0	0

- Molecule 16 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	P	102	Total 790	C 503	N 142	O 144	S 1	0	0

- Molecule 17 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	Q	110	Total 838	C 525	N 159	O 151	S 3	0	0

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
Q	?	-	ARG	deletion	UNP A0A077UKF9
Q	?	-	ALA	deletion	UNP A0A077UKF9

- Molecule 18 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	R	89	Total 715	C 453	N 127	O 131	S 4	0	0

- Molecule 19 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	S	103	Total 770	C 486	N 142	O 141	S 1	0	0

- Molecule 20 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms				AltConf	Trace
20	T	94	Total 722	C 463	N 130	O 129	0	0

- Molecule 21 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms				AltConf	Trace
21	U	77	Total 587	C 363	N 115	O 109	0	0

- Molecule 22 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms				AltConf	Trace
22	V	49	Total 379	C 234	N 82	O 63	0	0

- Molecule 23 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms				AltConf	Trace
23	W	67	Total 541	C 333	N 102	O 106	0	0

- Molecule 24 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				AltConf	Trace
24	X	58	Total 449	C 280	N 85	O 84	0	0

- Molecule 25 is a protein called 50S ribosomal protein L31 type B.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	Y	59	Total 370	C 225	N 68	O 76	S 1	0	0

- Molecule 26 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	Z	48	Total 360	C 222	N 77	O 59	S 2	0	0

- Molecule 27 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	1	47	Total	C	N	O	S	0	0
			390	238	78	70	4		

- Molecule 28 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	2	43	Total	C	N	O	S	0	0
			367	225	89	52	1		

- Molecule 29 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	3	64	Total	C	N	O	S	0	0
			521	324	113	82	2		

- Molecule 30 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	4	37	Total	C	N	O	S	0	0
			295	186	60	44	5		

- Molecule 31 is a RNA chain called 16S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	a	1539	Total	C	N	O	P	0	0
			32969	14719	6017	10694	1539		

- Molecule 32 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	b	226	Total	C	N	O	S	0	0
			1819	1159	317	335	8		

- Molecule 33 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	c	202	Total	C	N	O	S	0	0
			1501	945	284	271	1		

- Molecule 34 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	d	198	Total	C	N	O	S	0	0
			1497	952	275	268	2		

- Molecule 35 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	e	156	Total	C	N	O	S	0	0
			1145	723	211	209	2		

- Molecule 36 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	f	95	Total	C	N	O	S	0	0
			778	493	138	145	2		

- Molecule 37 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	g	152	Total	C	N	O	S	0	0
			1161	722	218	217	4		

- Molecule 38 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	h	131	Total	C	N	O	S	0	0
			1026	650	183	189	4		

- Molecule 39 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	i	127	Total	C	N	O	S	0	0
			922	576	179	166	1		

- Molecule 40 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	j	97	Total	C	N	O	S	0	0
			752	475	140	136	1		

- Molecule 41 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	k	114	Total	C	N	O	S	0	0
			810	498	151	159	2		

- Molecule 42 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	l	135	Total	C	N	O	S	0	0
			1037	646	211	178	2		

- Molecule 43 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms				AltConf	Trace
43	m	104	Total	C	N	O	0	0
			727	453	139	135		

- Molecule 44 is a protein called 30S ribosomal protein S14 type Z.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	n	60	Total	C	N	O	S	0	0
			487	307	98	77	5		

- Molecule 45 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	o	88	Total	C	N	O	S	0	0
			723	448	150	124	1		

- Molecule 46 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	p	89	Total	C	N	O	S	0	0
			694	436	128	129	1		

- Molecule 47 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms				AltConf	Trace
47	q	80	Total	C	N	O	0	0
			621	392	112	117		

- Molecule 48 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	r	54	Total	C	N	O	S	0	0
			445	284	86	73	2		

- Molecule 49 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	s	80	Total	C	N	O	S	0	0
			636	410	113	111	2		

- Molecule 50 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	t	81	Total	C	N	O	S	0	0
			591	358	117	115	1		

- Molecule 51 is a protein called 30S ribosomal protein S21.

Mol	Chain	Residues	Atoms				AltConf	Trace
51	u	52	Total	C	N	O	0	0
			400	249	79	72		

- Molecule 52 is a protein called Ribosome hibernation promoting factor.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	v	162	Total	C	N	O	S	0	0
			1333	835	242	254	2		

There are 24 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
v	?	-	GLU	deletion	UNP W8USK0
v	?	-	VAL	deletion	UNP W8USK0
v	?	-	PHE	deletion	UNP W8USK0
v	?	-	VAL	deletion	UNP W8USK0
v	?	-	ALA	deletion	UNP W8USK0
v	?	-	GLU	deletion	UNP W8USK0
v	?	-	LEU	deletion	UNP W8USK0
v	?	-	GLN	deletion	UNP W8USK0
v	?	-	GLU	deletion	UNP W8USK0
v	?	-	MET	deletion	UNP W8USK0
v	?	-	GLN	deletion	UNP W8USK0
v	?	-	GLU	deletion	UNP W8USK0

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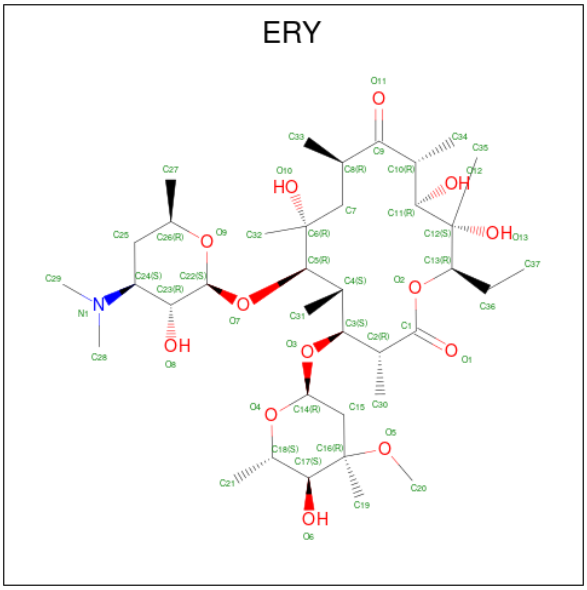
Chain	Residue	Modelled	Actual	Comment	Reference
v	?	-	THR	deletion	UNP W8USK0
v	?	-	GLN	deletion	UNP W8USK0
v	?	-	VAL	deletion	UNP W8USK0
v	?	-	ASP	deletion	UNP W8USK0
v	?	-	ASN	deletion	UNP W8USK0
v	?	-	ASP	deletion	UNP W8USK0
v	?	-	ALA	deletion	UNP W8USK0
v	?	-	TYR	deletion	UNP W8USK0
v	?	-	ASP	deletion	UNP W8USK0
v	?	-	ASP	deletion	UNP W8USK0
v	?	-	ASN	deletion	UNP W8USK0
v	?	-	GLU	deletion	UNP W8USK0

- Molecule 53 is ERYTHROMYCIN A (three-letter code: ERY) (formula: $C_{37}H_{67}NO_{13}$).

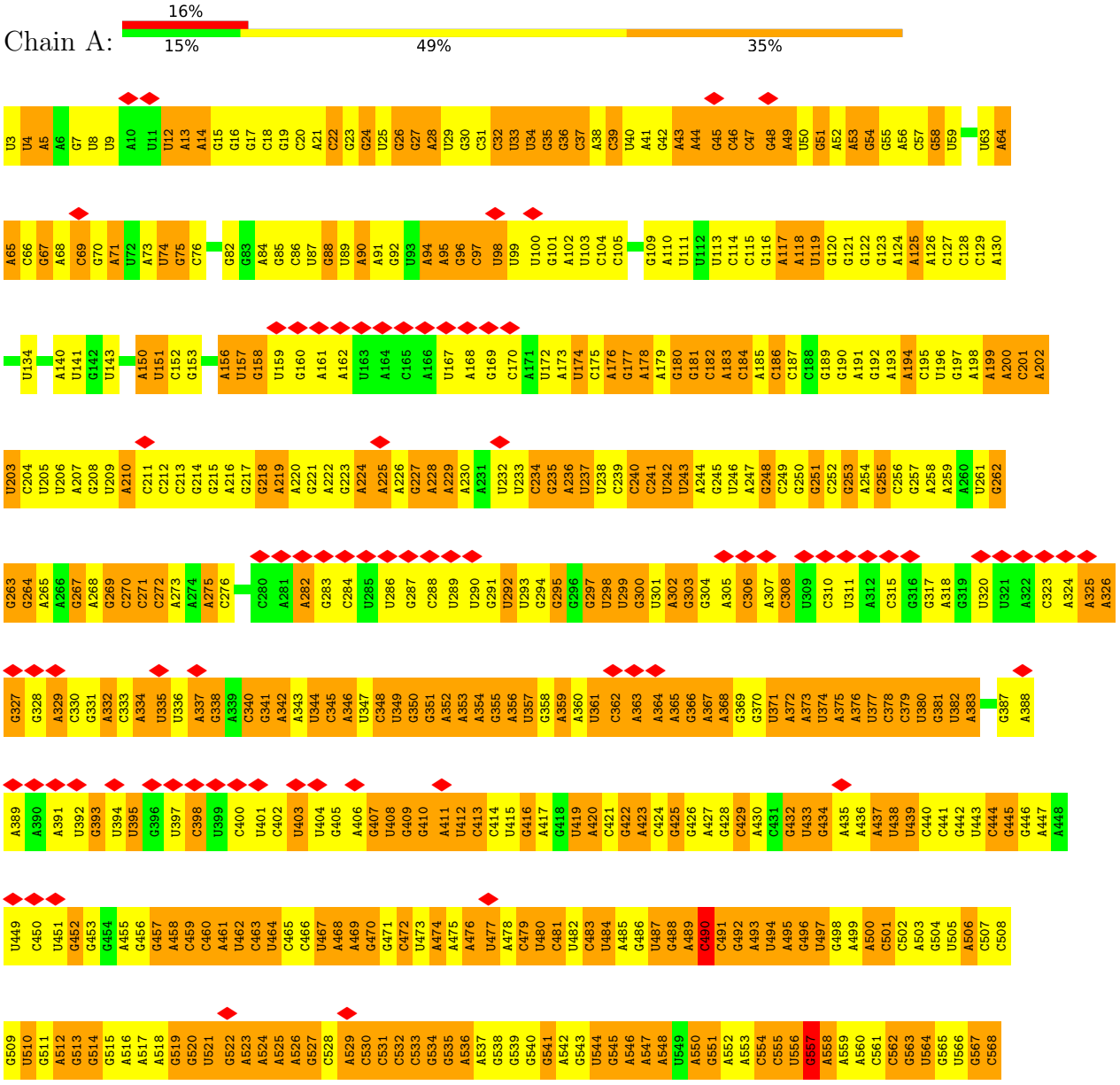


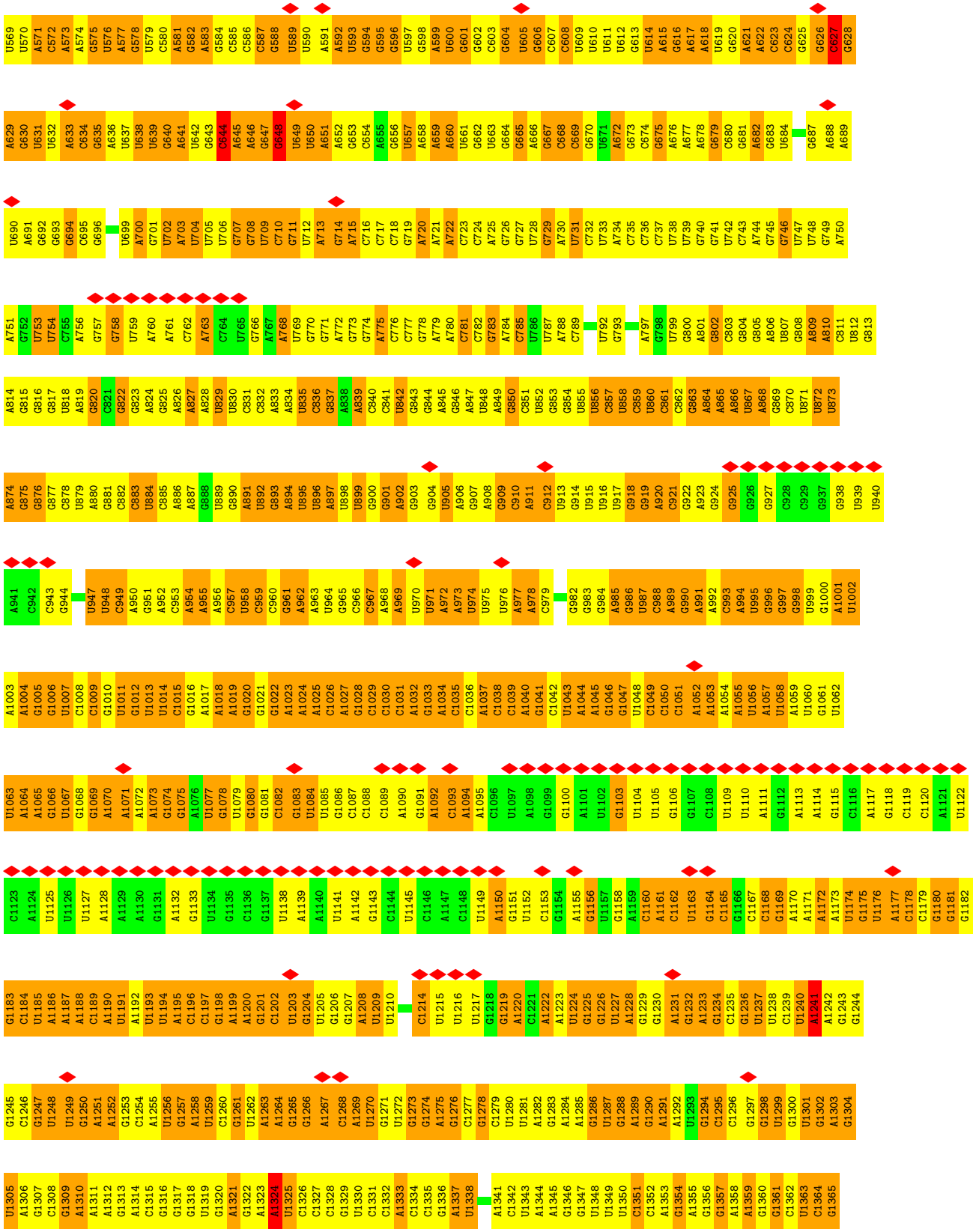
Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
53	A	1	51	37	1	13	0

3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. 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. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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: 23S ribosomal RNA




U569 U570 A571 C572 A573 A574 G575 U576 A577 G578 U579 C580 A581 G582 A583 G584 C585 C586 C587 G588 U589 U590 A591 A592 U593 G594 G595 G596 U597 G598 A599 U600 G601 G602 C603 G604 U605 G606 C607 C608 U609 U610 U611 U612 G613 U614 A615 G616 A617 A618 U619 G620 A621 A622 C623 C624 G625 G626 C627 G628
A629 G630 U631 U632 A633 C634 G635 A636 U637 U638 U639 G640 A641 U642 G643 C644 A645 A646 G647 G648 U649 U650 A651 A652 G653 C654 A655 G656 U657 A658 A659 A660 U661 G662 U663 G664 G665 A666 G667 C668 C669 G670 U671 A672 G673 C674 G675 A676 A677 A678 G679 C680 G681 A682 G683 U684 G687 A688 A689
U690 A691 G692 G693 G694 C695 G696 U699 A700 G701 U702 A703 U704 U705 U706 G707 G708 U709 C710 G711 U712 A713 G714 A715 C716 C717 C718 G719 A720 A721 A722 C723 C724 A725 G726 G727 U728 G729 A730 U731 C732 U733 A734 C735 C736 C737 U738 U739 G740 G741 U742 C743 A744 G745 G746 U747 U748 G749 A750
A751 G752 U753 U754 C755 A756 G757 G758 U759 A760 A761 C762 A763 C764 U765 G766 A767 A768 U769 G770 G771 A772 G773 G774 A775 C776 C777 G778 A779 A780 C781 C782 G783 A784 C785 U786 U787 A788 C789 U792 G793 A797 G798 U799 G800 A801 G802 C803 G804 G805 A806 U807 G808 A809 A810 C811 U812 G813
A814 G815 G816 G817 U818 A819 G820 C821 G822 G823 A824 G825 A826 A827 A828 U829 U830 C831 C832 A833 A834 U835 C836 G837 A838 A839 C840 C841 U842 G843 G844 A845 G846 A847 U848 A849 G850 C851 U852 G853 G854 U855 U856 C857 U858 C859 U860 C861 C862 G863 A864 A865 A866 U867 A868 G869 C870 U871 U872 U873
A874 G875 G876 G877 C878 U879 A880 G881 C882 C883 U884 C885 A886 A887 G888 U889 G890 A891 U892 G893 A894 U895 U896 A897 U898 U899 G900 G901 A902 G903 G904 U905 A906 G907 A908 G909 C910 A911 C912 U913 G914 U915 U916 U917 G918 G919 A920 C921 G922 A923 G924 G925 G926 G927 C928 G929 G937 G938 U939 U940
A941 C942 C943 G944 U947 U948 C949 A960 G951 A952 C953 A964 A955 A956 C957 U958 C959 C960 G961 A962 A963 U964 G965 C966 C967 A968 A969 U970 U971 A972 A973 U974 U975 U976 A977 A978 C979 G982 G983 G984 A985 G986 U987 C988 A989 G990 A991 A992 C993 A994 U995 G996 G997 G998 U999 G1000 A1001 U1002
A1003 A1004 G1005 G1006 U1007 C1008 C1009 G1010 U1011 G1012 U1013 U1014 C1015 G1016 A1017 A1018 A1019 G1020 G1021 G1022 A1023 A1024 A1025 C1026 A1027 G1028 C1029 C1030 C1031 A1032 G1033 A1034 C1035 C1036 A1037 C1038 C1039 A1040 G1041 C1042 U1043 A1044 A1045 G1046 C1047 U1048 C1049 C1050 C1051 A1052 A1053 A1054 A1055 U1056 A1057 U1058 A1059 U1060 G1061 U1062
U1063 A1064 A1065 G1066 U1067 G1068 G1069 A1070 A1071 A1072 A1073 G1074 G1075 A1076 U1077 G1078 U1079 G1080 G1081 C1082 G1083 U1084 U1085 G1086 C1087 C1088 C1089 A1090 G1091 A1092 C1093 A1094 A1095 C1096 U1097 A1098 G1099 G1100 A1101 U1102 G1103 U1104 U1105 G1106 G1107 C1108 U1109 U1110 A1111 G1112 A1113 A1114 G1115 C1116 A1117 G1118 C1119 C1120 A1121 U1122
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G1183 C1184 U1185 A1186 A1187 A1188 C1189 A1190 U1191 A1192 U1193 U1194 A1195 C1196 C1197 G1198 A1199 A1200 G1201 C1202 U1203 G1204 U1205 G1206 G1207 A1208 U1209 U1210 C1214 U1215 U1216 U1217 G1218 G1219 A1220 C1221 A1222 A1223 A1224 G1225 G1226 U1227 A1228 G1229 G1230 A1231 G1232 A1233 G1234 C1235 G1236 U1237 U1238 U1239 U1240 A1241 A1242 A1243 G1244
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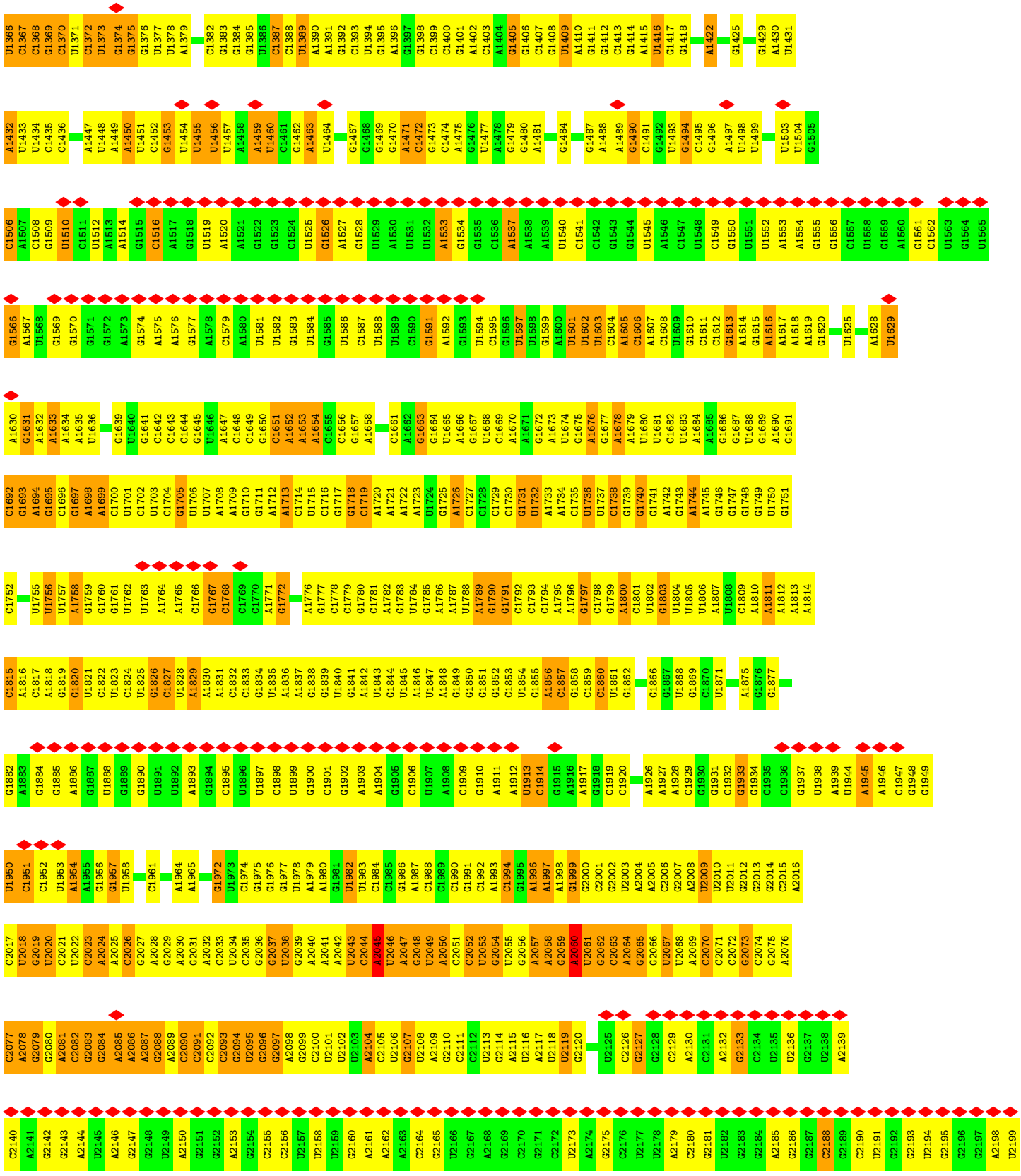
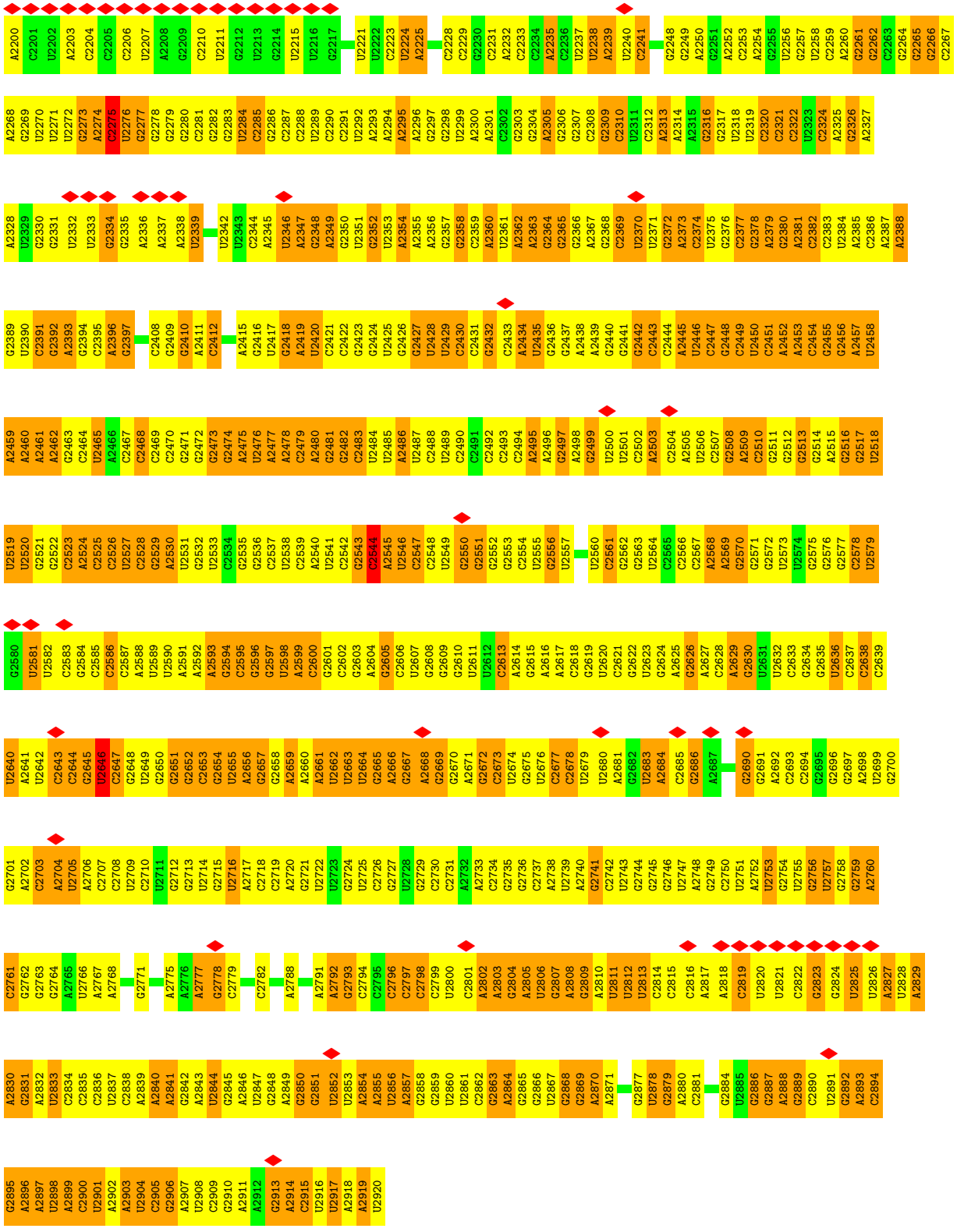
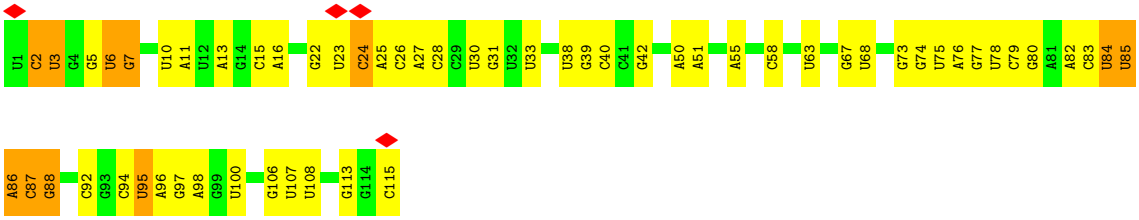




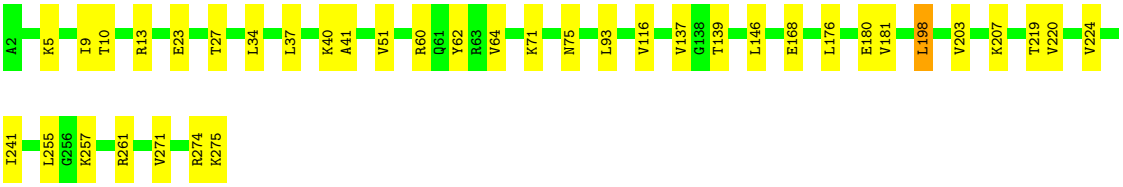
• Molecule 2: 5S ribosomal RNA

Chain B:



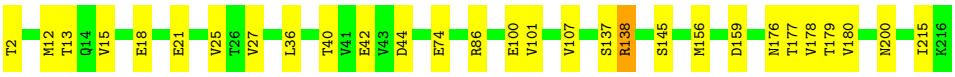
• Molecule 3: 50S ribosomal protein L2

Chain C:



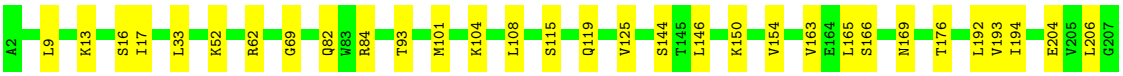
• Molecule 4: 50S ribosomal protein L3

Chain D:



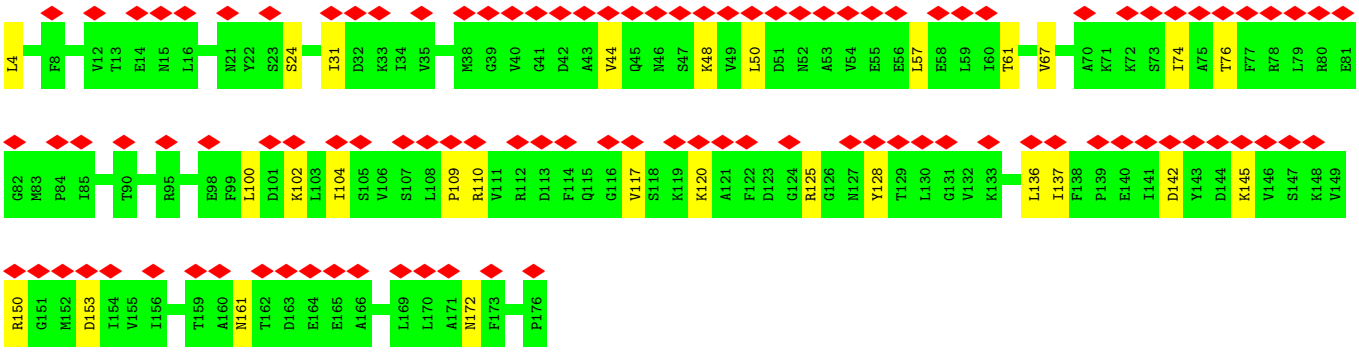
• Molecule 5: 50S ribosomal protein L4

Chain E:



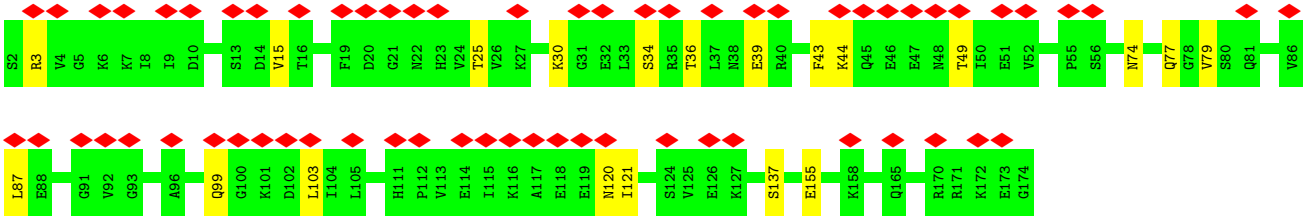
• Molecule 6: 50S ribosomal protein L5

Chain F:



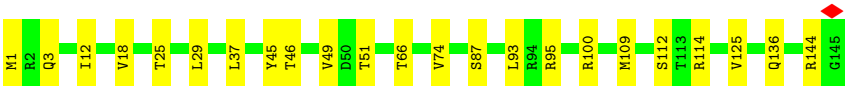
• Molecule 7: 50S ribosomal protein L6

Chain G:



• Molecule 8: 50S ribosomal protein L13

Chain H:

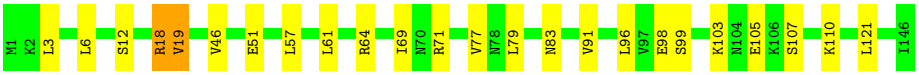


• Molecule 9: 50S ribosomal protein L14

Chain I:

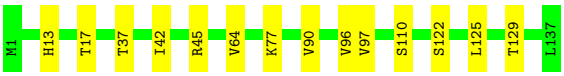
• Molecule 10: 50S ribosomal protein L15

Chain J:



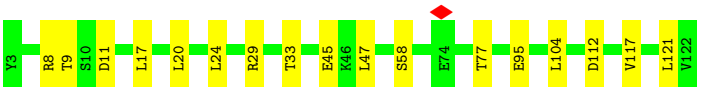
• Molecule 11: 50S ribosomal protein L16

Chain K:



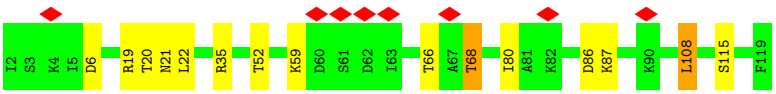
• Molecule 12: 50S ribosomal protein L17

Chain L:



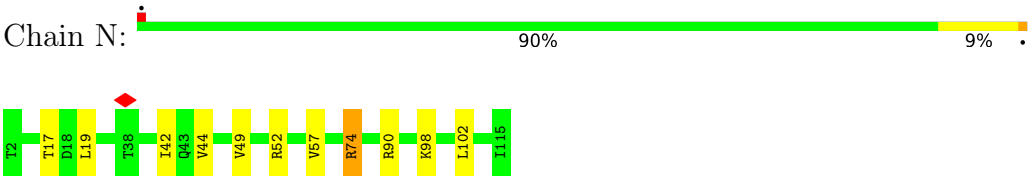
• Molecule 13: 50S ribosomal protein L18

Chain M:



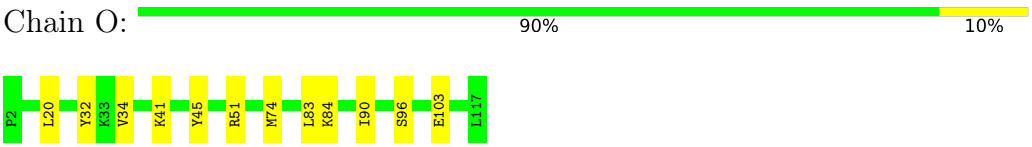
• Molecule 14: 50S ribosomal protein L19

Chain N:



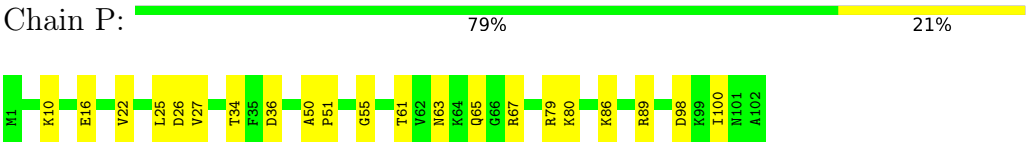
• Molecule 15: 50S ribosomal protein L20

Chain O:



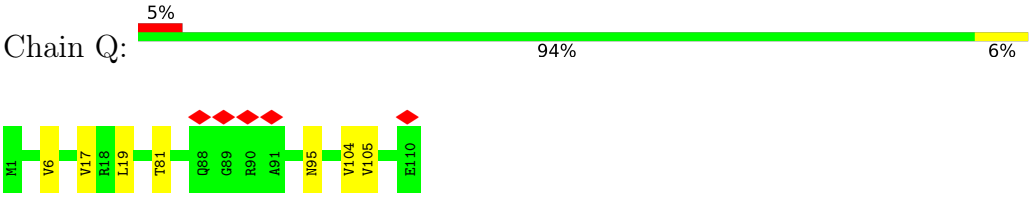
• Molecule 16: 50S ribosomal protein L21

Chain P:



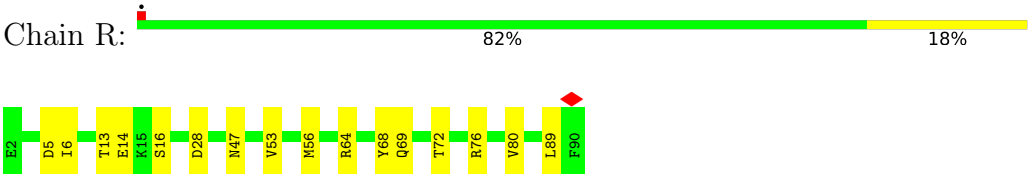
• Molecule 17: 50S ribosomal protein L22

Chain Q:



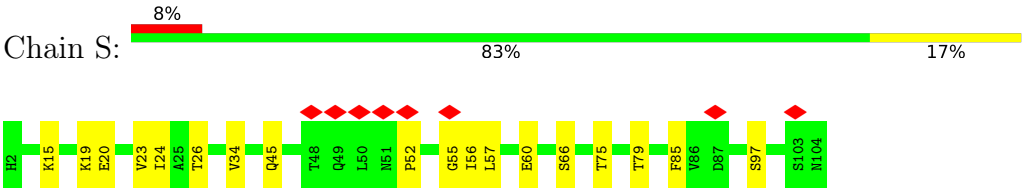
• Molecule 18: 50S ribosomal protein L23

Chain R:



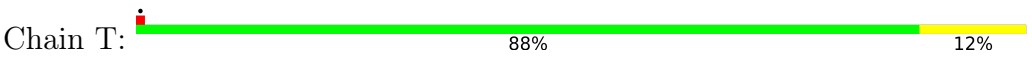
• Molecule 19: 50S ribosomal protein L24

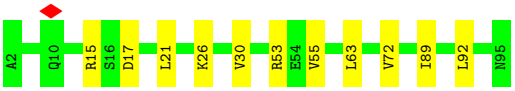
Chain S:



• Molecule 20: 50S ribosomal protein L25

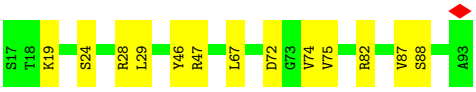
Chain T:





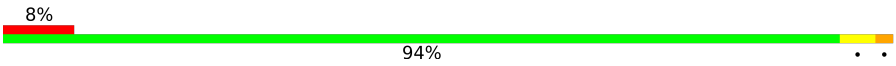
• Molecule 21: 50S ribosomal protein L27

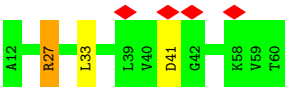
Chain U:



• Molecule 22: 50S ribosomal protein L28

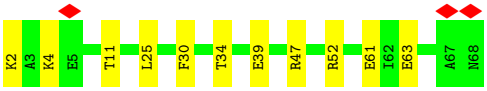
Chain V:





• Molecule 23: 50S ribosomal protein L29

Chain W:

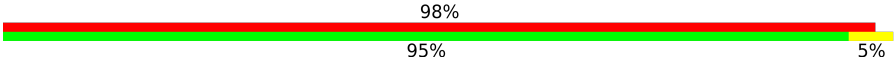


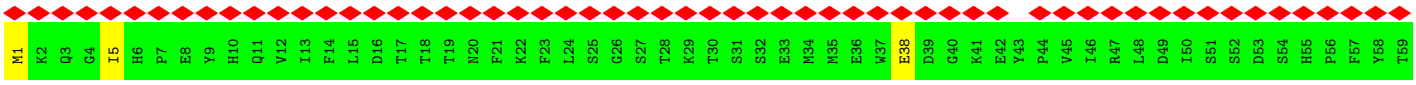
• Molecule 24: 50S ribosomal protein L30

Chain X:

• Molecule 25: 50S ribosomal protein L31 type B

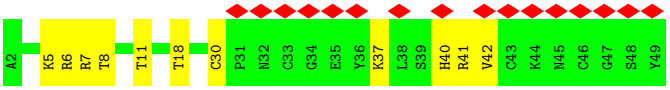
Chain Y:





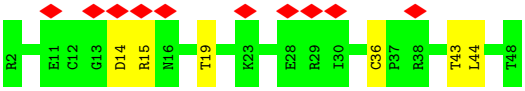
• Molecule 26: 50S ribosomal protein L32

Chain Z:



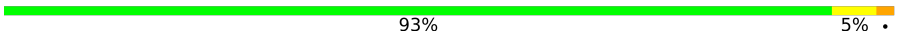
• Molecule 27: 50S ribosomal protein L33

Chain 1:



• Molecule 28: 50S ribosomal protein L34

Chain 2:

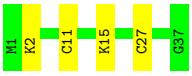


• Molecule 29: 50S ribosomal protein L35

Chain 3:

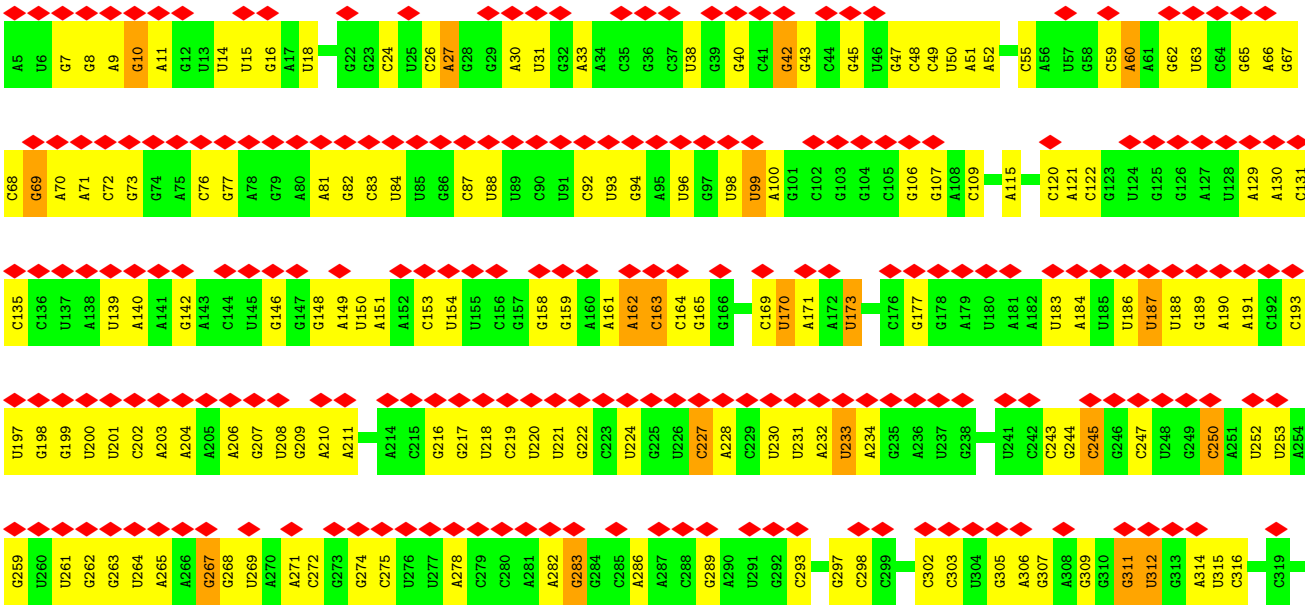
• Molecule 30: 50S ribosomal protein L36

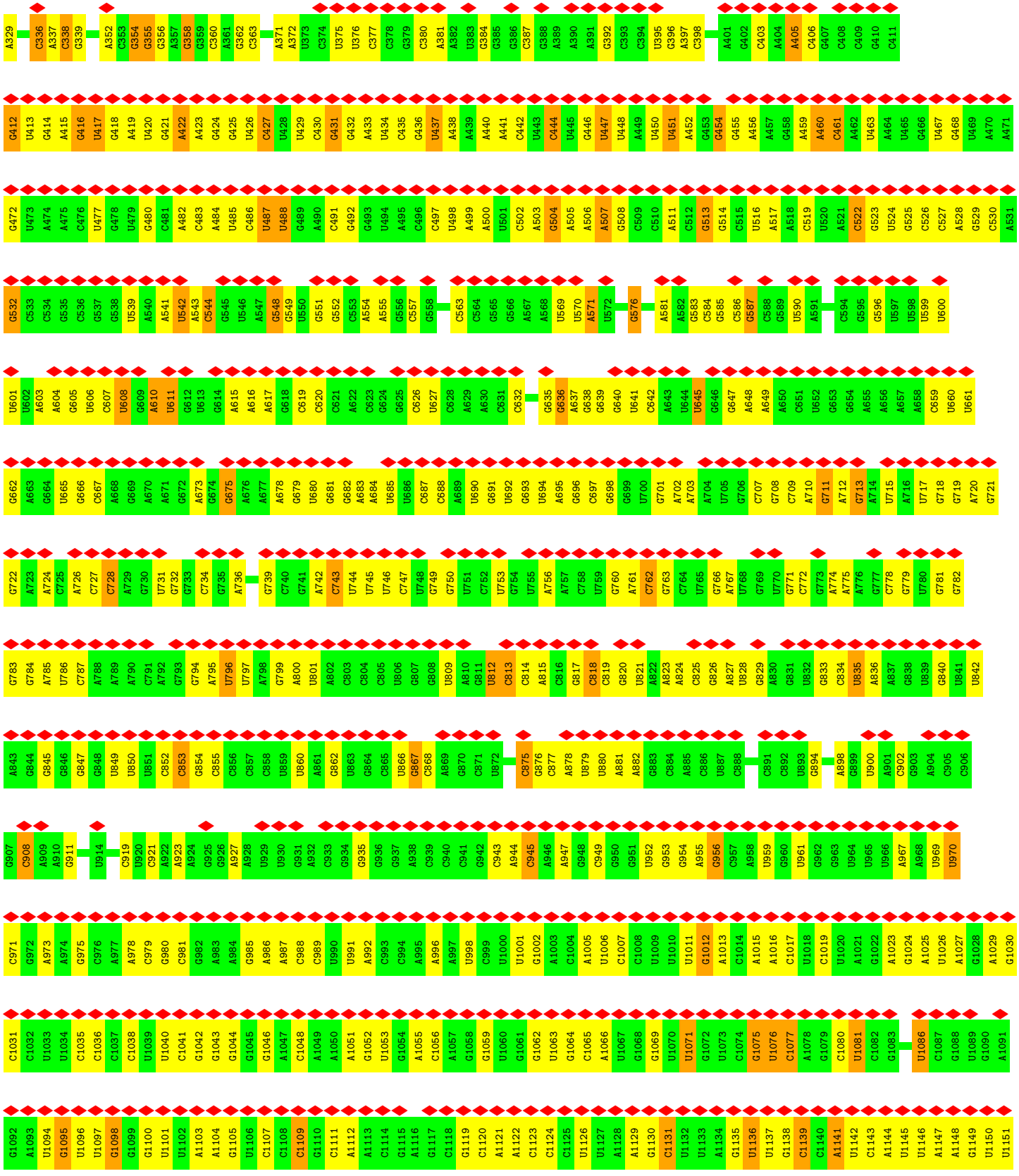
Chain 4:



• Molecule 31: 16S ribosomal RNA

Chain a:

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G412 U413 G414 A415 G416 U417 G418 A419 U420 G421 A422 A423 G424 G425 U426 C427 U428 U429 C430 G431 G432 A433 U434 G435 C436 U437 A438 A439 A440 A441 C442 U443 C444 U445 G446 U447 U448 A449 U450 U451 A452 G453 G454 G455 A456 A457 G458 A459 A460 C461 A462 U463 A464 U465 C466 U467 G468 U469 A470 A471
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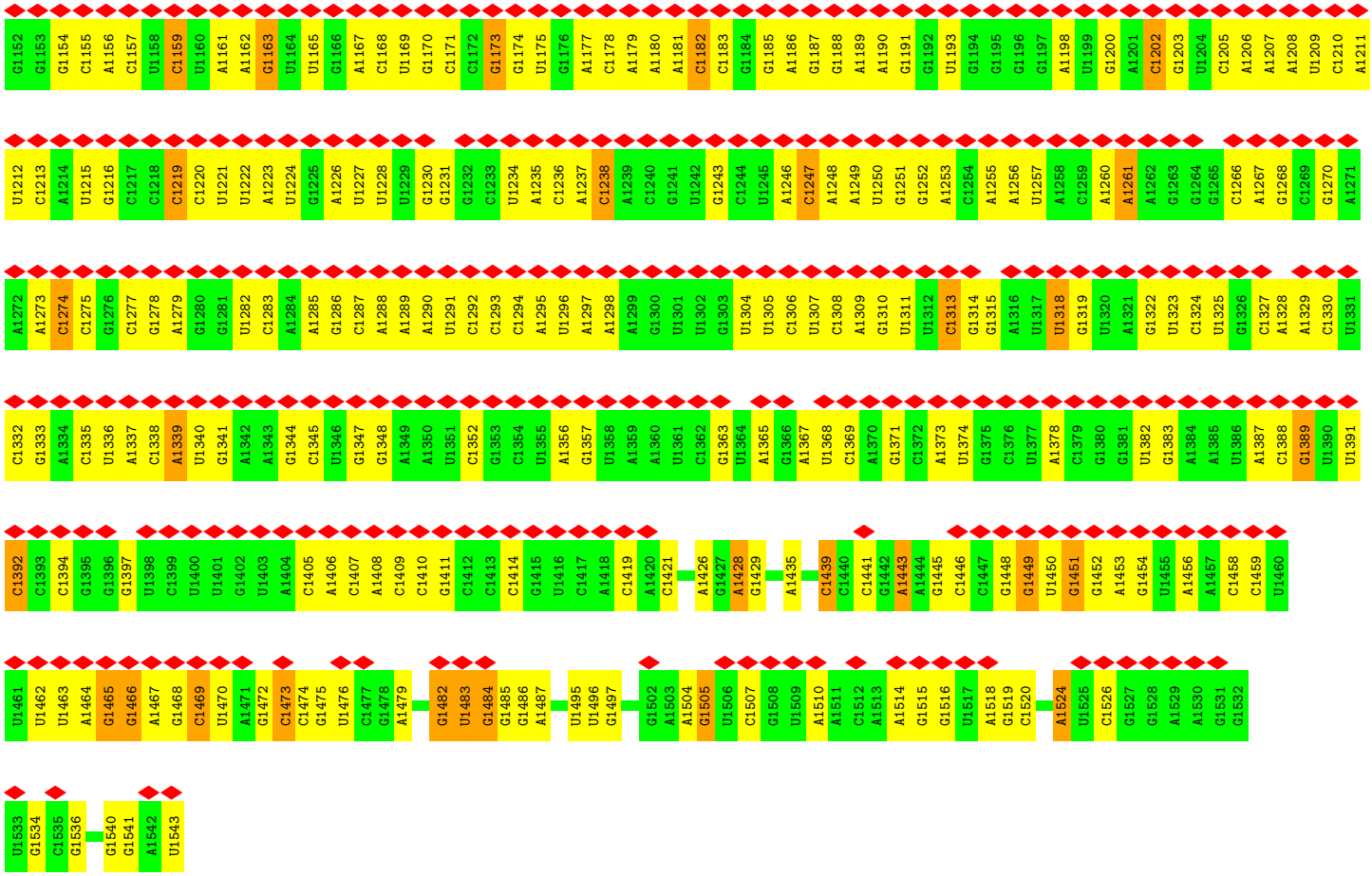
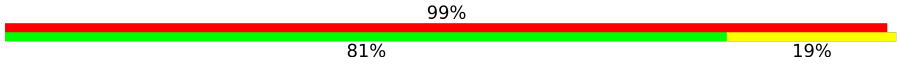
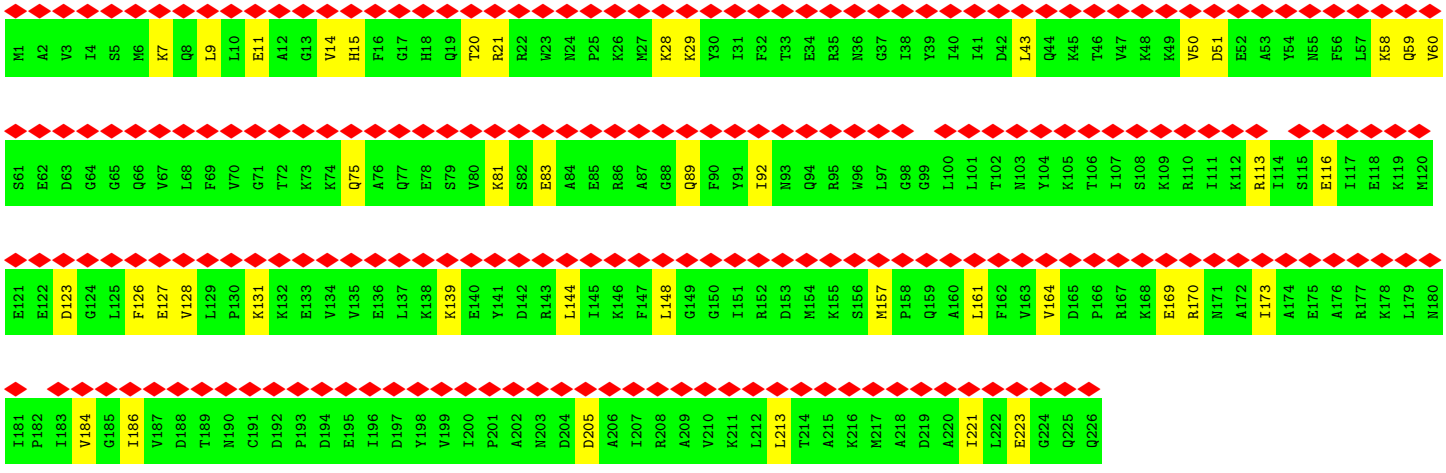
G907 C908 A909 A910 G911 U914 C919 U920 C921 A922 A923 A924 G925 G926 A927 A928 U929 U930 G931 A932 C933 G934 G935 G936 G937 A938 C939 C940 C941 G942 C943 A944 C945 A946 A947 G948 C949 G950 G951 U952 G953 G954 A955 G956 C957 A958 U959 G960 U961 G962 G963 U964 U965 U966 A967 A968 U969 U970
C971 G972 A973 A974 G975 C976 A977 A978 C979 G980 C981 G982 A983 A984 G985 A986 A987 C988 C989 U990 U991 A992 C993 C994 A995 A996 A997 U998 C999 U1000 U1001 G1002 A1003 C1004 A1005 U1006 C1007 C1008 U1009 U1010 U1011 G1012 A1013 C1014 A1015 A1016 C1017 U1018 C1019 U1020 A1021 G1022 A1023 G1024 A1025 U1026 A1027 G1028 A1029 G1030
C1031 C1032 U1033 U1034 C1035 C1036 C1037 C1038 U1039 U1040 C1041 G1042 G1043 G1044 G1045 G1046 A1047 C1048 A1049 A1050 A1051 G1052 U1053 G1054 A1055 C1056 A1057 G1058 G1059 U1060 G1061 G1062 U1063 G1064 C1065 A1066 U1067 G1068 G1069 U1070 U1071 G1072 U1073 C1074 G1075 U1076 C1077 A1078 C1079 C1080 U1081 C1082 G1083 U1086 C1087 G1088 U1089 G1090 A1091
G1092 A1093 U1094 G1095 U1096 U1097 G1098 G1099 G1100 U1101 U1102 A1103 A1104 C1105 U1106 C1107 C1108 C1109 G1110 C1111 A1112 A1113 C1114 G1115 A1116 G1117 C1118 G1119 C1120 A1121 A1122 C1123 C1124 C1125 U1126 U1127 A1128 A1129 G1130 C1131 U1132 U1133 A1134 C1135 U1136 U1137 G1138 C1139 C1140 A1141 U1142 C1143 A1144 U1145 U1146 A1147 A1148 G1149 U1150 U1151



• Molecule 32: 30S ribosomal protein S2

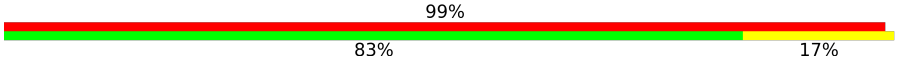
Chain b:





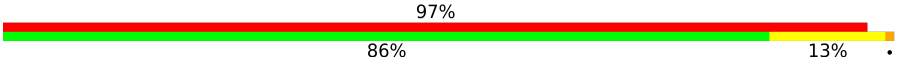
• Molecule 33: 30S ribosomal protein S3

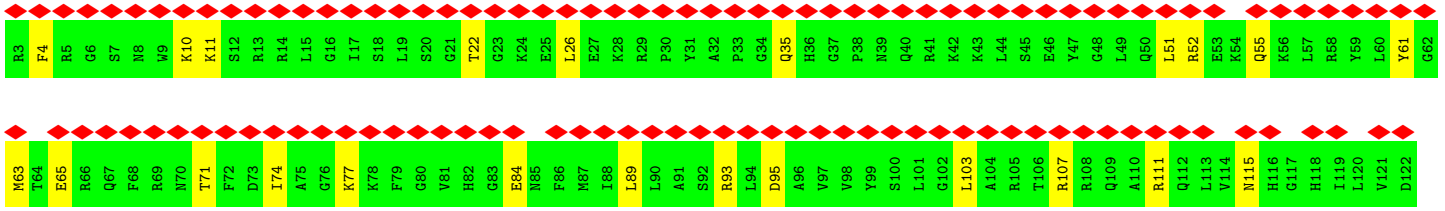
Chain c:



• Molecule 34: 30S ribosomal protein S4

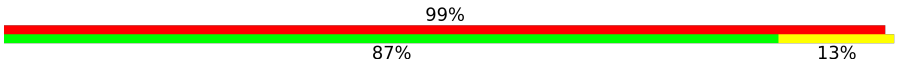
Chain d:





• Molecule 35: 30S ribosomal protein S5

Chain e:



• Molecule 36: 30S ribosomal protein S6

Chain f:

M1 R2 T3 Y4 E5 V6 M7 Y8 I9 V10 R11 P12 N13 I14 E15 E16 D17 A18 K19 K20 A21 L22 V23 E24 R25 F26 N27 G28 I29 L30 A31 T32 E33 G34 A35 E36 V37 L38 E39 A40 K41 D42 W43 G44 K45 R46 R47 L48 A49 Y50 E51 I52 N53 D54 F55 K56 D57 G58 F59 Y60

N61 I62 V63 R64 V65 K66 S67 D68 N69 N70 K71 A72 T73 D74 E75 F76 Q77 R78 L79 A80 K81 I82 S83 D84 D85 I86 I87 R88 Y89 M90 V91 I92 R93 E94 D95

- Molecule 37: 30S ribosomal protein S7

Chain g:

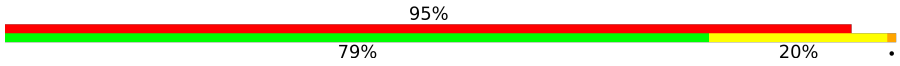
M1 P2 R3 K4 G5 S6 V7 P8 K9 R10 D11 V12 L13 P14 D15 P16 I17 H18 N19 S20 K21 L22 V23 T24 K25 L26 I27 N28 K29 I30 M31 L32 D33 G34 K35 R36 G37 T38 A39 Q40 R41 I42 L43 Y44 S45 A46 F47 D48 L49 V50 E51 Q52 R53 S54 G55 R56 D57 A58 L59 E60

V61 F62 E63 E64 A65 I66 N67 N68 I69 M70 P71 V72 L73 E74 V75 K76 A77 R78 R79 V80 G81 G82 S83 N84 Y85 Q86 V87 P88 V89 E90 V91 R92 P93 E94 R95 R96 T97 T98 L99 G100 L101 R102 W103 L104 V105 N106 Y107 A108 R109 L110 R111 G112 E113 K114 T115 M116 E117 D118 R119 L120

A121 N122 E123 I124 L125 D126 A127 A128 N129 N130 T131 G132 G133 A134 V135 K136 K137 R138 E139 D140 T141 H142 K143 M144 A145 E146 A147 N148 K149 A150 F151 A152

- Molecule 38: 30S ribosomal protein S8

Chain h:



T2 M3 T4 D5 P6 I7 A8 D9 M10 L11 T12 R13 V14 R15 N16 A17 N18 M19 V20 R21 H22 E23 K24 L25 E26 L27 P28 A29 S30 N31 I32 K33 K34 E35 I36 A37 E38 I39 L40 K41 S42 E43 G44 F45 I46 K47 N48 V49 E50 Y51 V52 E53 D54 D55 K56 Q57 G58 V59 L60 R61

L62 F63 L64 K65 Y66 G67 Q68 N69 D70 E71 R72 V73 I74 T75 G76 L77 K78 R79 I80 S81 K82 P83 G84 L85 R86 V87 Y88 A89 K90 A91 S92 E93 M94 P95 K96 V97 L98 N99 G100 L101 G102 I103 A104 L105 V106 S107 E110 G111 V112 I113 T114 D115 K116 E117 A118 R119 K120 R121 N122

V123 G124 G125 E126 I127 I128 A129 Y130 V131 W132

- Molecule 39: 30S ribosomal protein S9

Chain i:

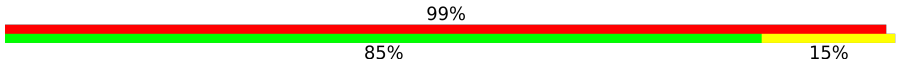
V6 E7 Y8 R9 G10 T11 G12 R13 R14 K15 N16 S17 V18 A19 R20 V21 R22 L23 V24 P25 G26 E27 G28 N29 I30 T31 V32 N33 N34 R35 D36 V37 R38 E39 Y40 L41 P42 F43 E44 S45 L46 I47 L48 D49 L50 N51 Q52 P53 F54 D55 V56 T57 E58 T59 K60 G61 N62 Y63 D64 V65

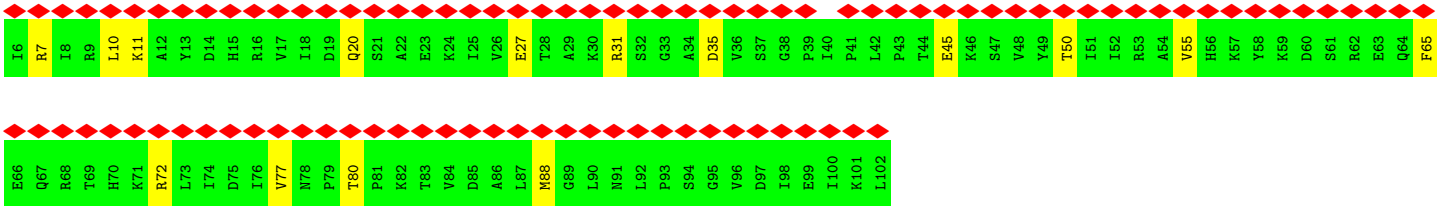
L66 V67 N68 V69 H70 G71 G72 G73 F74 T75 G76 Q77 A78 Q79 A80 I81 R82 H83 G84 I85 A86 R87 A88 L89 L90 E91 A92 D93 P94 E95 Y96 R97 G98 S99 L100 K101 R102 A103 G104 L105 L106 T107 R108 D109 P110 R111 M112 K113 E114 R115 K116 K117 P118 G119 L120 K121 A122 A123 R124 R125

S126 P127 Q128 F129 S130 K131 R132

• Molecule 40: 30S ribosomal protein S10

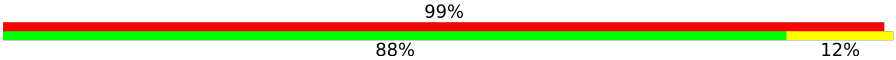
Chain j:

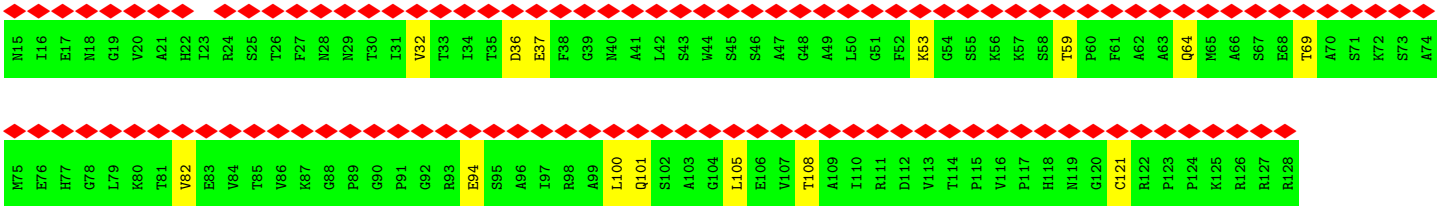




• Molecule 41: 30S ribosomal protein S11

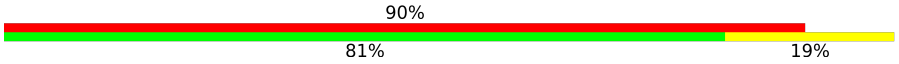
Chain k:

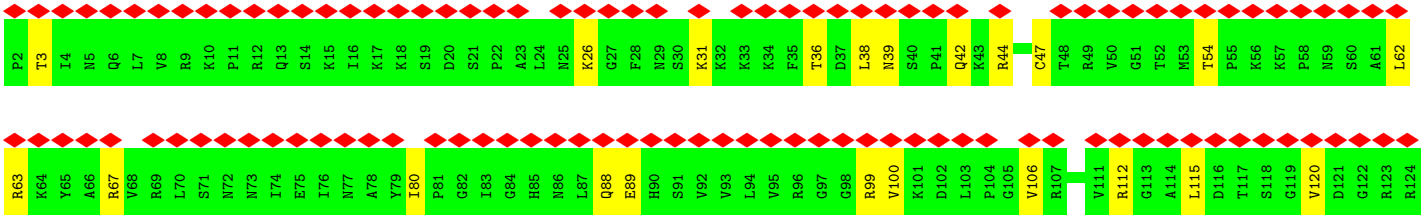




• Molecule 42: 30S ribosomal protein S12

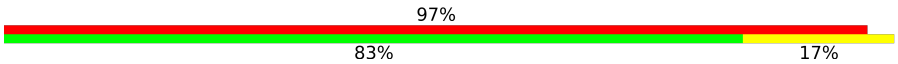
Chain l:

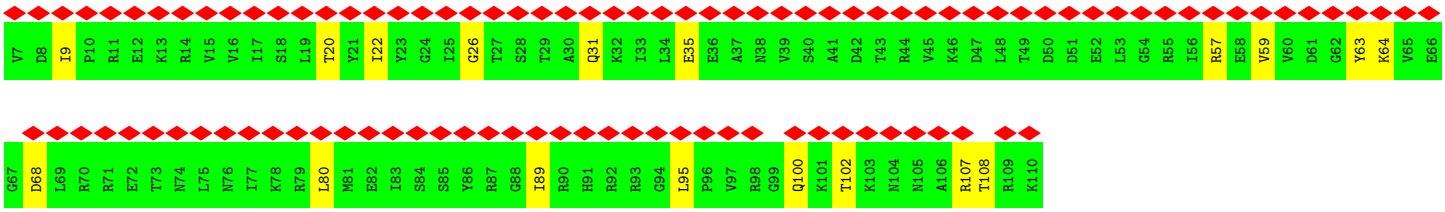




• Molecule 43: 30S ribosomal protein S13

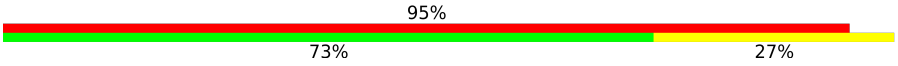
Chain m:

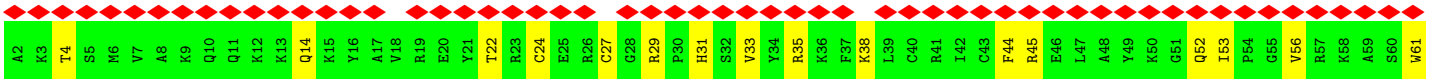




• Molecule 44: 30S ribosomal protein S14 type Z

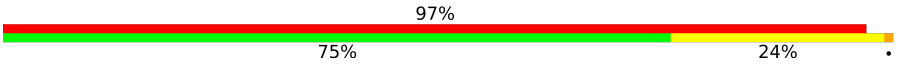
Chain n:

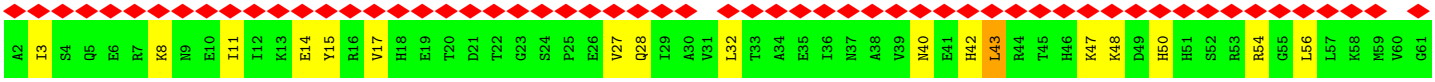


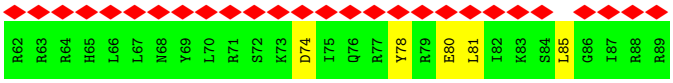


• Molecule 45: 30S ribosomal protein S15

Chain o:

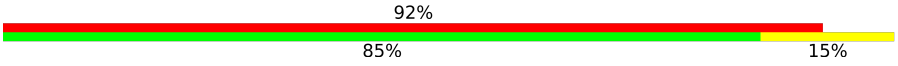


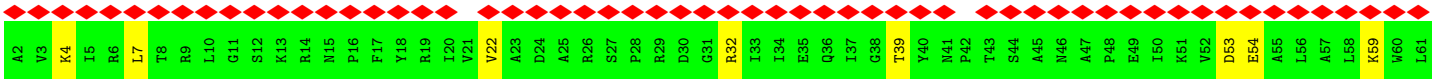




• Molecule 46: 30S ribosomal protein S16

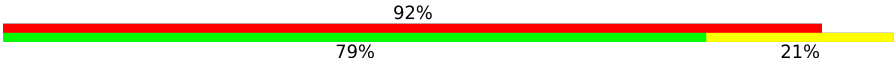
Chain p:





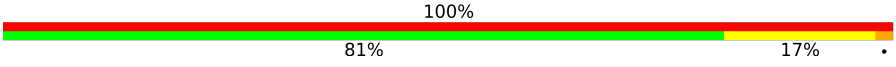
• Molecule 47: 30S ribosomal protein S17

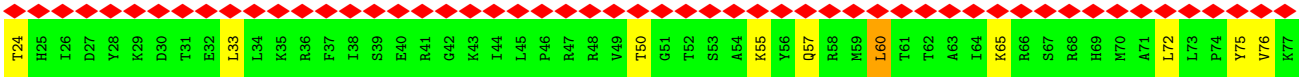
Chain q:



• Molecule 48: 30S ribosomal protein S18

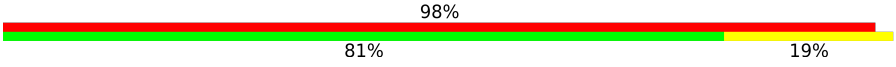
Chain r:





• Molecule 49: 30S ribosomal protein S19

Chain s:

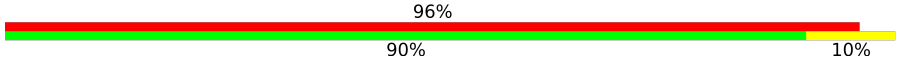


S4 I5 K6 K7 G8 P9 F10 V11 D12 E13 H14 L15 M16 K17 K18 V19 E20 A21 Q22 E23 G24 S25 E26 K27 K28 Q29 V30 I31 K32 T33 W34 S35 R36 R37 S38 T39 I40 F41 P42 N43 F44 I45 G46 H47 T48 F49 A50 V51 Y52 D53 G54 R55 K56 H57 V58 P59 V60 Y61 V62 T63

E64 D65 M66 V67 G68 H69 K70 L71 G72 E73 F74 A75 P76 T77 R78 T79 F80 K81 G82 H83

- Molecule 50: 30S ribosomal protein S20

Chain t:



A2 N3 I4 K5 S6 A7 I8 K9 R10 V11 K12 T13 T14 E15 K16 A17 E18 A19 R20 N21 I22 S23 Q24 K25 S26 A27 M28 R29 T30 A31 V32 K33 N34 A35 K36 T37 A38 V39 S40 N41 N42 A43 D44 N45 K46 N47 E48 L49 V50 S51 L52 A53 V54 K55 L56 V57 D58 K59 A60 A61

Q62 S63 N64 L65 I66 H67 S68 N69 K70 A71 D72 R73 I74 K75 S76 Q77 L78 M79 T80 A81 N82

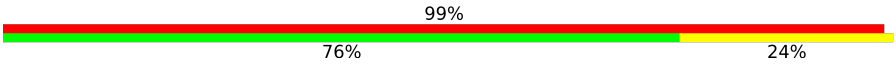
- Molecule 51: 30S ribosomal protein S21

Chain u:

T4 V5 V6 R7 K8 N9 E10 S11 L12 E13 D14 A15 L16 R17 R18 F19 K20 R21 S22 V23 S24 K25 S26 G27 T28 I29 Q30 E31 V32 R33 K34 R35 E36 F37 Y38 E39 K40 P41 S42 V43 K44 R45 K46 K47 K48 S49 E50 A51 A52 R53 K54 R55

- Molecule 52: Ribosome hibernation promoting factor

Chain v:



I2 R3 F4 E5 I6 H7 G8 D9 N10 L11 T12 I13 T14 D15 A16 I17 R18 N19 Y20 I21 E22 E23 K24 I25 G26 K27 L28 E29 R30 Y31 F32 N33 D34 V35 P36 N37 A38 V39 A40 H41 V42 K43 V44 K45 T46 Y47 S48 N49 S50 A51 T52 K53 I54 E55 V56 T57 I58 P59 L60 K61

N62 V63 T64 L65 R66 A67 E68 E69 R70 N71 D72 D73 L74 Y75 A76 G77 I78 D79 L80 I81 N82 N83 K84 L85 E86 R87 Q88 V89 R90 K91 Y92 K93 T94 R95 I96 N97 R98 K99 S100 R101 D102 R103 G104 D105 Q106 I131 E132 I133 I134 R135 S136 K137 E138 F139 S140 L141 K142 P143 M144 D145

S146 E147 E148 A149 V150 L151 Q152 M153 N154 L155 L156 G157 H158 D159 F160 F161 V162 F163 T164 D165 R166 E167 T168 D169 G170 T171 S172 I173 V174 Y175 R176 R177 K178 D179 G180 K181 Y182 G183 L184 I185 Q186 T187

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	378309	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	1.076	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.320	Depositor
Minimum map value	-0.137	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.006	Depositor
Recommended contour level	0.015	Depositor
Map size (Å)	426.80002, 426.80002, 426.80002	wwPDB
Map dimensions	400, 400, 400	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.067, 1.067, 1.067	Depositor

5 Model quality

5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	3.16	6081/69740 (8.7%)	3.34	9273/108755 (8.5%)
2	B	1.67	25/2733 (0.9%)	1.75	88/4257 (2.1%)
3	C	1.14	3/2125 (0.1%)	0.81	1/2853 (0.0%)
4	D	1.22	1/1651 (0.1%)	0.83	1/2215 (0.0%)
5	E	1.14	1/1595 (0.1%)	0.85	1/2154 (0.0%)
6	F	0.39	0/1329	0.60	0/1791
7	G	0.39	0/1266	0.54	0/1717
8	H	1.23	3/1171 (0.3%)	0.85	0/1577
9	I	1.16	2/925 (0.2%)	0.84	0/1242
10	J	1.07	1/1100 (0.1%)	0.84	1/1467 (0.1%)
11	K	1.10	1/1103 (0.1%)	0.70	0/1481
12	L	1.12	0/936	0.79	0/1253
13	M	0.62	0/892	0.66	1/1195 (0.1%)
14	N	1.17	2/901 (0.2%)	0.78	0/1209
15	O	1.33	3/955 (0.3%)	0.86	0/1265
16	P	1.22	1/800 (0.1%)	0.88	0/1070
17	Q	1.09	2/846 (0.2%)	0.78	0/1140
18	R	0.98	0/723	0.70	0/966
19	S	0.82	0/779	0.72	0/1043
20	T	0.77	0/730	0.71	1/981 (0.1%)
21	U	1.25	1/593 (0.2%)	0.77	0/788
22	V	0.98	0/384	0.81	1/515 (0.2%)
23	W	0.75	0/542	0.67	0/722
24	X	1.17	1/451 (0.2%)	0.82	0/606
25	Y	0.34	0/378	0.56	0/521
26	Z	1.06	0/366	0.80	0/489
27	1	0.55	0/395	0.58	0/530
28	2	1.37	1/371 (0.3%)	0.90	1/484 (0.2%)
29	3	1.08	2/526 (0.4%)	0.75	0/690
30	4	0.76	0/298	0.61	0/392
31	a	0.62	3/36913 (0.0%)	1.38	509/57564 (0.9%)
32	b	0.30	0/1846	0.53	0/2477

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
33	c	0.27	0/1523	0.56	0/2062
34	d	0.31	0/1526	0.62	1/2063 (0.0%)
35	e	0.31	0/1159	0.58	0/1566
36	f	0.34	0/789	0.58	0/1060
37	g	0.38	1/1176 (0.1%)	0.53	0/1588
38	h	0.29	0/1038	0.55	1/1395 (0.1%)
39	i	0.28	0/937	0.59	0/1269
40	j	0.27	0/764	0.52	0/1034
41	k	0.32	0/824	0.60	0/1119
42	l	0.32	0/1054	0.54	0/1415
43	m	0.26	0/732	0.59	0/991
44	n	0.32	0/497	0.55	0/662
45	o	0.27	0/732	0.55	1/979 (0.1%)
46	p	0.28	0/705	0.56	1/952 (0.1%)
47	q	0.32	0/629	0.58	0/849
48	r	0.30	0/452	0.60	1/604 (0.2%)
49	s	0.34	0/654	0.56	0/879
50	t	0.25	0/591	0.47	0/793
51	u	0.29	0/403	0.48	0/535
52	v	0.27	0/1350	0.55	0/1812
All	All	2.21	6135/152898 (4.0%)	2.44	9883/229036 (4.3%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand.A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	3	15
5	E	0	3
9	I	0	1
11	K	0	1
13	M	0	1
16	P	0	2
19	S	0	1
23	W	0	1
26	Z	0	1
29	3	0	1
43	m	0	1
49	s	0	3
All	All	3	31

All (6135) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	332	A	N7-C5	192.33	2.54	1.39
1	A	332	A	N9-C4	181.51	2.46	1.37
1	A	332	A	C8-N7	159.80	2.43	1.31
1	A	332	A	N9-C8	145.76	2.54	1.37
1	A	332	A	C5-C4	134.74	2.33	1.38
1	A	393	G	C1'-N9	77.01	2.64	1.48
1	A	393	G	N9-C4	31.76	1.63	1.38
1	A	1016	G	N7-C5	-23.06	1.25	1.39
1	A	1198	G	N7-C5	-21.81	1.26	1.39
1	A	2025	A	N9-C4	-21.53	1.25	1.37
1	A	2704	A	N7-C5	-21.15	1.26	1.39
1	A	1046	G	C8-N7	-20.42	1.18	1.30
1	A	2668	A	N9-C4	20.41	1.50	1.37
1	A	2597	G	C8-N7	-20.30	1.18	1.30
1	A	607	C	N3-C4	-19.99	1.20	1.33
1	A	1027	A	N3-C4	-19.54	1.23	1.34
1	A	1034	A	N9-C8	-19.26	1.22	1.37
1	A	1020	G	C8-N7	-19.15	1.19	1.30
1	A	1017	A	C5-C6	-19.03	1.24	1.41
1	A	373	A	N9-C4	18.86	1.49	1.37
1	A	2094	G	N9-C4	18.84	1.53	1.38
1	A	2461	A	N7-C5	-18.80	1.27	1.39
1	A	2047	A	N7-C5	-18.77	1.27	1.39
1	A	907	G	C8-N7	-18.37	1.20	1.30
1	A	2597	G	N9-C8	-18.31	1.25	1.37
1	A	2056	G	C6-N1	-18.10	1.26	1.39
1	A	363	A	N7-C5	-18.05	1.28	1.39
1	A	1241	A	N7-C5	-18.05	1.28	1.39
1	A	70	G	N7-C5	-17.70	1.28	1.39
1	A	1295	C	C2-N3	-17.62	1.21	1.35
1	A	2597	G	N7-C5	-17.47	1.28	1.39
1	A	606	G	C2-N2	-17.32	1.17	1.34
1	A	626	G	C6-N1	-17.32	1.27	1.39
1	A	1374	G	N7-C5	-17.21	1.28	1.39
1	A	1018	A	N9-C4	-17.19	1.27	1.37
1	A	1046	G	N7-C5	-17.04	1.29	1.39
1	A	2551	G	N7-C5	-17.01	1.29	1.39
1	A	2056	G	N7-C5	-16.74	1.29	1.39
1	A	2031	G	N1-C2	-16.74	1.24	1.37
1	A	607	C	C2-N3	-16.51	1.22	1.35
1	A	1017	A	N7-C5	-16.42	1.29	1.39
1	A	1027	A	N1-C2	-16.42	1.19	1.34
1	A	606	G	C2-N3	-16.41	1.19	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2857	A	N9-C4	-16.39	1.28	1.37
1	A	2094	G	C6-N1	-16.36	1.28	1.39
1	A	606	G	N3-C4	-16.35	1.24	1.35
1	A	544	U	C2-O2	-16.24	1.07	1.22
1	A	393	G	N9-C8	16.23	1.49	1.37
1	A	1198	G	N9-C8	-16.21	1.26	1.37
1	A	607	C	C2-O2	-16.20	1.09	1.24
1	A	712	U	C2-N3	-16.05	1.26	1.37
1	A	198	A	C6-N6	-15.96	1.21	1.33
1	A	606	G	C6-N1	-15.95	1.28	1.39
1	A	2031	G	C2-N3	-15.91	1.20	1.32
1	A	2473	G	C2-N3	-15.84	1.20	1.32
1	A	503	A	N9-C4	-15.81	1.28	1.37
1	A	907	G	N7-C5	-15.73	1.29	1.39
1	A	606	G	N9-C4	-15.67	1.25	1.38
1	A	1265	G	N7-C5	-15.56	1.29	1.39
1	A	1207	G	N7-C5	-15.54	1.29	1.39
1	A	1283	G	N9-C4	-15.51	1.25	1.38
1	A	2757	U	C2-N3	-15.44	1.26	1.37
1	A	2481	G	N9-C4	15.39	1.50	1.38
1	A	2863	G	N9-C4	15.38	1.50	1.38
1	A	1044	A	N7-C5	-15.30	1.30	1.39
1	A	27	G	N9-C4	15.23	1.50	1.38
1	A	2457	A	N9-C4	15.21	1.47	1.37
1	A	520	G	C2-N3	-15.20	1.20	1.32
1	A	70	G	N9-C8	-15.18	1.27	1.37
1	A	612	U	C2-N3	-15.16	1.27	1.37
1	A	1073	A	N9-C4	15.11	1.47	1.37
1	A	2025	A	N7-C5	-15.11	1.30	1.39
1	A	629	A	N3-C4	-15.09	1.25	1.34
1	A	2080	G	C2-N3	-15.07	1.20	1.32
1	A	544	U	N3-C4	-15.05	1.25	1.38
1	A	1286	G	C5-C6	-15.04	1.27	1.42
1	A	864	A	C6-N1	-15.01	1.25	1.35
1	A	1236	G	N7-C5	-14.97	1.30	1.39
1	A	2740	A	N9-C4	-14.96	1.28	1.37
1	A	1073	A	N7-C5	-14.77	1.30	1.39
1	A	1322	G	N7-C5	-14.64	1.30	1.39
1	A	1000	G	C8-N7	-14.63	1.22	1.30
1	A	198	A	C6-N1	-14.62	1.25	1.35
1	A	2396	A	N7-C5	-14.60	1.30	1.39
1	A	2667	G	N3-C4	-14.57	1.25	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	68	A	N9-C4	-14.56	1.29	1.37
1	A	1014	U	C2-N3	14.51	1.48	1.37
1	A	547	A	N7-C5	-14.49	1.30	1.39
1	A	865	A	N7-C5	-14.42	1.30	1.39
1	A	1195	A	N7-C5	-14.42	1.30	1.39
1	A	2080	G	C5-C4	-14.33	1.28	1.38
1	A	1374	G	C6-N1	-14.31	1.29	1.39
1	A	117	A	N9-C4	14.30	1.46	1.37
1	A	629	A	N9-C4	-14.22	1.29	1.37
1	A	365	A	N9-C4	-14.21	1.29	1.37
1	A	363	A	C5-C6	-14.18	1.28	1.41
1	A	2060	A	N9-C4	14.18	1.46	1.37
1	A	1054	A	N7-C5	-14.17	1.30	1.39
1	A	1284	A	N9-C4	-14.07	1.29	1.37
1	A	1201	G	N7-C5	-14.05	1.30	1.39
1	A	990	G	N9-C8	-14.05	1.28	1.37
1	A	990	G	C8-N7	-14.03	1.22	1.30
1	A	2065	G	C6-N1	-14.01	1.29	1.39
1	A	1228	A	C5-C6	-13.99	1.28	1.41
1	A	1029	C	P-O5'	13.99	1.73	1.59
1	A	612	U	C4-O4	-13.93	1.12	1.23
1	A	1297	G	C8-N7	-13.81	1.22	1.30
1	A	863	G	N7-C5	-13.80	1.30	1.39
1	A	13	A	N9-C4	13.71	1.46	1.37
1	A	1263	A	N9-C4	-13.61	1.29	1.37
1	A	1017	A	N9-C4	-13.60	1.29	1.37
1	A	2473	G	N7-C5	-13.55	1.31	1.39
1	A	2063	C	N3-C4	-13.52	1.24	1.33
1	A	2569	A	N7-C5	-13.47	1.31	1.39
1	A	2642	U	N3-C4	-13.47	1.26	1.38
1	A	620	G	C5-C4	-13.44	1.28	1.38
1	A	2036	G	C6-N1	-13.40	1.30	1.39
1	A	1296	C	C2-O2	-13.39	1.12	1.24
1	A	622	A	N7-C5	-13.36	1.31	1.39
1	A	1020	G	N7-C5	-13.34	1.31	1.39
1	A	2054	G	N3-C4	-13.34	1.26	1.35
1	A	620	G	C6-O6	-13.31	1.12	1.24
1	A	863	G	C8-N7	-13.31	1.23	1.30
1	A	2887	G	N9-C4	13.25	1.48	1.38
1	A	543	G	N3-C4	-13.23	1.26	1.35
1	A	1011	U	C4-C5	-13.20	1.31	1.43
1	A	2471	G	C8-N7	-13.16	1.23	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2568	A	C5-C6	-13.15	1.29	1.41
1	A	2474	G	N7-C5	-13.14	1.31	1.39
1	A	2481	G	C6-N1	-13.12	1.30	1.39
1	A	1032	A	N7-C5	-13.05	1.31	1.39
1	A	2527	U	N3-C4	13.02	1.50	1.38
1	A	2065	G	C5-C6	-13.00	1.29	1.42
1	A	1198	G	N3-C4	-13.00	1.26	1.35
1	A	625	G	N3-C4	-12.99	1.26	1.35
1	A	24	G	C2-N3	-12.98	1.22	1.32
1	A	2702	A	N9-C4	-12.98	1.30	1.37
1	A	651	A	C8-N7	-12.97	1.22	1.31
1	A	1198	G	C6-N1	-12.96	1.30	1.39
1	A	1065	A	N9-C4	-12.94	1.30	1.37
1	A	2090	C	N3-C4	-12.93	1.25	1.33
1	A	2471	G	C5-C6	-12.92	1.29	1.42
1	A	2471	G	N9-C4	-12.89	1.27	1.38
1	A	990	G	N7-C5	-12.89	1.31	1.39
1	A	2481	G	N7-C5	-12.88	1.31	1.39
1	A	2855	A	N9-C4	-12.87	1.30	1.37
2	B	76	A	N7-C5	-12.87	1.31	1.39
1	A	491	C	N1-C6	-12.83	1.29	1.37
1	A	1264	A	C6-N1	-12.81	1.26	1.35
1	A	633	A	N9-C4	12.78	1.45	1.37
1	A	22	C	C4-C5	-12.76	1.32	1.43
1	A	2411	A	N3-C4	-12.74	1.27	1.34
1	A	2856	U	N3-C4	-12.73	1.26	1.38
1	A	863	G	C5-C6	-12.69	1.29	1.42
1	A	626	G	N9-C4	12.68	1.48	1.38
1	A	721	A	N3-C4	-12.67	1.27	1.34
1	A	1283	G	C5-C4	-12.67	1.29	1.38
1	A	2704	A	C8-N7	-12.66	1.22	1.31
1	A	1705	G	C5-C4	-12.62	1.29	1.38
1	A	1288	G	N9-C4	12.60	1.48	1.38
1	A	1269	A	C5-C6	-12.59	1.29	1.41
1	A	70	G	C8-N7	-12.57	1.23	1.30
1	A	1010	G	C5-C6	-12.56	1.29	1.42
1	A	1010	G	N9-C4	-12.55	1.27	1.38
1	A	1049	C	C4-C5	-12.55	1.32	1.43
1	A	2031	G	N3-C4	-12.53	1.26	1.35
1	A	1044	A	N9-C4	12.52	1.45	1.37
1	A	642	U	C2-N3	-12.49	1.29	1.37
1	A	1016	G	C8-N7	-12.48	1.23	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1286	G	N9-C4	-12.47	1.27	1.38
1	A	226	A	N9-C4	-12.45	1.30	1.37
1	A	520	G	N3-C4	-12.44	1.26	1.35
1	A	2542	C	N3-C4	-12.43	1.25	1.33
1	A	1227	U	N3-C4	-12.39	1.27	1.38
1	A	2845	G	C2-N3	-12.38	1.22	1.32
1	A	2886	G	N7-C5	-12.34	1.31	1.39
1	A	1066	G	N9-C4	12.34	1.47	1.38
1	A	550	A	N9-C4	12.33	1.45	1.37
1	A	2056	G	N3-C4	-12.33	1.26	1.35
1	A	526	A	N9-C4	12.30	1.45	1.37
1	A	2025	A	C5-C6	-12.29	1.29	1.41
1	A	707	G	N9-C4	12.29	1.47	1.38
1	A	2047	A	C5-C6	-12.29	1.29	1.41
1	A	1200	A	N9-C4	-12.28	1.30	1.37
1	A	2526	C	C5-C6	-12.26	1.24	1.34
1	A	1355	A	N9-C4	-12.26	1.30	1.37
1	A	2047	A	C8-N7	-12.25	1.23	1.31
1	A	373	A	N7-C5	-12.22	1.31	1.39
1	A	622	A	C5-C6	-12.17	1.30	1.41
1	A	721	A	N9-C4	-12.15	1.30	1.37
1	A	2295	A	N3-C4	-12.12	1.27	1.34
1	A	1000	G	N7-C5	-12.12	1.31	1.39
1	A	1207	G	C8-N7	-12.12	1.23	1.30
1	A	2667	G	C2-N3	-12.09	1.23	1.32
1	A	492	G	C5-C4	-12.07	1.29	1.38
1	A	615	A	N7-C5	12.05	1.46	1.39
1	A	707	G	C5-C6	12.04	1.54	1.42
1	A	202	A	N9-C4	-12.03	1.30	1.37
1	A	2845	G	N9-C4	-12.00	1.28	1.38
1	A	630	G	N3-C4	-12.00	1.27	1.35
1	A	1286	G	C5-C4	-12.00	1.29	1.38
1	A	1236	G	C5-C6	-11.97	1.30	1.42
1	A	150	A	N9-C4	11.94	1.45	1.37
1	A	253	G	N3-C4	-11.92	1.27	1.35
1	A	1010	G	N7-C5	-11.92	1.32	1.39
1	A	1283	G	C2-N3	-11.89	1.23	1.32
1	A	1175	G	N9-C8	-11.89	1.29	1.37
1	A	491	C	N3-C4	-11.87	1.25	1.33
1	A	641	A	N9-C4	-11.85	1.30	1.37
1	A	703	A	C6-N1	-11.84	1.27	1.35
1	A	1692	C	C4-C5	-11.84	1.33	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2065	G	N9-C4	-11.84	1.28	1.38
1	A	2608	G	N7-C5	-11.84	1.32	1.39
1	A	1308	C	C4-N4	-11.83	1.23	1.33
1	A	1705	G	C6-O6	-11.83	1.13	1.24
1	A	2065	G	N7-C5	-11.83	1.32	1.39
1	A	650	U	N3-C4	-11.79	1.27	1.38
1	A	632	U	N3-C4	-11.78	1.27	1.38
1	A	1288	G	N7-C5	-11.78	1.32	1.39
1	A	2093	C	C2-N3	-11.77	1.26	1.35
1	A	1043	U	C4-O4	-11.77	1.14	1.23
1	A	2830	A	N9-C4	-11.76	1.30	1.37
1	A	1199	A	N9-C4	11.74	1.44	1.37
1	A	547	A	C5-C6	-11.74	1.30	1.41
1	A	1004	A	N9-C4	-11.74	1.30	1.37
1	A	2045	A	N7-C5	-11.73	1.32	1.39
1	A	985	A	N9-C4	-11.72	1.30	1.37
1	A	2024	A	N7-C5	-11.72	1.32	1.39
1	A	863	G	N9-C4	-11.71	1.28	1.38
1	A	2032	A	N7-C5	-11.69	1.32	1.39
1	A	1368	C	N3-C4	-11.69	1.25	1.33
1	A	1269	A	N7-C5	-11.68	1.32	1.39
1	A	1227	U	C4-O4	-11.67	1.14	1.23
1	A	2526	C	N1-C6	-11.66	1.30	1.37
1	A	1027	A	C6-N1	-11.65	1.27	1.35
1	A	620	G	N9-C4	-11.65	1.28	1.38
1	A	2080	G	N3-C4	-11.61	1.27	1.35
1	A	1297	G	C6-N1	-11.60	1.31	1.39
1	A	2664	U	N1-C2	11.60	1.49	1.38
1	A	863	G	C6-N1	-11.58	1.31	1.39
1	A	503	A	N3-C4	-11.55	1.27	1.34
1	A	627	C	N3-C4	-11.53	1.25	1.33
1	A	1175	G	C5-C6	-11.52	1.30	1.42
1	A	503	A	N7-C5	-11.51	1.32	1.39
1	A	2284	U	N1-C2	11.51	1.49	1.38
1	A	1187	A	N9-C4	11.49	1.44	1.37
1	A	903	G	C6-O6	-11.49	1.13	1.24
1	A	2863	G	N3-C4	11.48	1.43	1.35
1	A	1232	G	C6-N1	-11.47	1.31	1.39
1	A	2903	A	N9-C4	-11.44	1.30	1.37
1	A	1230	G	N7-C5	-11.44	1.32	1.39
1	A	2525	C	N1-C6	-11.43	1.30	1.37
1	A	1016	G	N9-C4	11.42	1.47	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1049	C	N1-C2	11.42	1.51	1.40
1	A	37	C	N3-C4	-11.40	1.25	1.33
1	A	470	G	C2-N3	-11.40	1.23	1.32
1	A	868	A	C5-C6	-11.38	1.30	1.41
1	A	1226	G	N1-C2	-11.37	1.28	1.37
1	A	628	G	N7-C5	-11.35	1.32	1.39
1	A	198	A	N1-C2	-11.34	1.24	1.34
1	A	2092	C	N3-C4	-11.33	1.26	1.33
1	A	1692	C	N1-C6	-11.32	1.30	1.37
1	A	858	U	C2-N3	-11.31	1.29	1.37
1	A	2528	C	N3-C4	-11.31	1.26	1.33
1	A	2857	A	N7-C5	-11.29	1.32	1.39
1	A	2047	A	N9-C8	-11.28	1.28	1.37
1	A	1207	G	C6-N1	-11.28	1.31	1.39
1	A	200	A	N3-C4	-11.27	1.28	1.34
1	A	1289	A	N9-C4	-11.26	1.31	1.37
1	A	1201	G	C5-C6	-11.24	1.31	1.42
1	A	1274	G	N9-C4	11.20	1.47	1.38
1	A	2079	G	C6-N1	-11.20	1.31	1.39
1	A	626	G	C8-N7	-11.19	1.24	1.30
1	A	1804	U	N3-C4	-11.19	1.28	1.38
1	A	884	U	C4-C5	-11.19	1.33	1.43
1	A	363	A	C5-C4	-11.18	1.30	1.38
1	A	2064	A	N1-C2	-11.18	1.24	1.34
1	A	490	C	C2-N3	-11.18	1.26	1.35
1	A	582	G	N9-C4	11.18	1.46	1.38
1	A	2800	U	C2-N3	-11.18	1.29	1.37
1	A	22	C	N3-C4	-11.17	1.26	1.33
1	A	967	C	N3-C4	-11.17	1.26	1.33
1	A	892	U	C2-N3	-11.17	1.29	1.37
1	A	965	G	C2-N3	-11.16	1.23	1.32
1	A	1226	G	N9-C8	-11.16	1.30	1.37
1	A	2285	C	N3-C4	-11.16	1.26	1.33
1	A	1227	U	C2-N3	-11.15	1.29	1.37
1	A	868	A	N9-C4	-11.14	1.31	1.37
1	A	2059	G	N7-C5	-11.13	1.32	1.39
1	A	28	A	N9-C4	-11.12	1.31	1.37
1	A	1283	G	N7-C5	-11.12	1.32	1.39
1	A	2065	G	C8-N7	-11.11	1.24	1.30
1	A	720	A	N9-C4	-11.11	1.31	1.37
1	A	2044	C	N1-C6	-11.08	1.30	1.37
1	A	2704	A	N9-C4	11.06	1.44	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1187	A	N7-C5	-11.06	1.32	1.39
1	A	906	A	C5-C6	11.05	1.50	1.41
1	A	2083	G	C6-N1	-11.03	1.31	1.39
1	A	643	G	C6-N1	-11.03	1.31	1.39
1	A	2543	G	N7-C5	-11.03	1.32	1.39
1	A	1698	A	P-O5'	11.02	1.70	1.59
1	A	708	G	P-O5'	11.01	1.70	1.59
1	A	616	G	N3-C4	-10.99	1.27	1.35
1	A	1811	A	N7-C5	-10.99	1.32	1.39
1	A	1696	C	N3-C4	-10.98	1.26	1.33
1	A	1294	G	N1-C2	-10.97	1.28	1.37
1	A	616	G	N9-C8	-10.96	1.30	1.37
1	A	629	A	N7-C5	-10.95	1.32	1.39
1	A	1016	G	C6-N1	-10.94	1.31	1.39
1	A	1979	A	N9-C4	-10.91	1.31	1.37
1	A	2869	G	N1-C2	-10.91	1.29	1.37
1	A	2064	A	P-O5'	10.90	1.70	1.59
1	A	2643	C	N3-C4	-10.90	1.26	1.33
1	A	543	G	N7-C5	-10.90	1.32	1.39
1	A	598	G	N7-C5	-10.89	1.32	1.39
1	A	1700	C	N3-C4	-10.89	1.26	1.33
1	A	493	A	C5-C6	-10.88	1.31	1.41
1	A	506	A	N9-C4	-10.87	1.31	1.37
1	A	607	C	N1-C6	-10.86	1.30	1.37
1	A	984	G	C6-N1	-10.87	1.31	1.39
1	A	874	A	N3-C4	-10.86	1.28	1.34
1	A	1198	G	N1-C2	-10.86	1.29	1.37
1	A	2380	G	C8-N7	-10.86	1.24	1.30
1	A	2673	C	C4-N4	-10.85	1.24	1.33
1	A	2058	A	N7-C5	-10.83	1.32	1.39
1	A	445	G	C2-N3	-10.82	1.24	1.32
1	A	1198	G	C2-N2	-10.82	1.23	1.34
1	A	1072	A	N9-C4	10.82	1.44	1.37
1	A	2056	G	C2-N2	-10.82	1.23	1.34
1	A	1297	G	N9-C8	-10.81	1.30	1.37
1	A	2056	G	C8-N7	-10.81	1.24	1.30
1	A	604	G	C5-C4	-10.81	1.30	1.38
1	A	515	G	C6-N1	-10.80	1.31	1.39
1	A	707	G	O3'-P	10.80	1.74	1.61
1	A	620	G	C2-N3	-10.78	1.24	1.32
1	A	2054	G	C2-N3	-10.77	1.24	1.32
1	A	2486	A	N7-C5	-10.77	1.32	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	613	G	N7-C5	-10.75	1.32	1.39
1	A	1017	A	C8-N7	-10.74	1.24	1.31
1	A	2024	A	P-O5'	10.73	1.70	1.59
1	A	990	G	C4'-C3'	-10.73	1.41	1.53
1	A	882	C	N3-C4	-10.72	1.26	1.33
1	A	1322	G	N9-C8	-10.71	1.30	1.37
1	A	1700	C	C2-O2	-10.69	1.14	1.24
1	A	868	A	N7-C5	-10.68	1.32	1.39
1	A	2642	U	C2-O2	-10.67	1.12	1.22
1	A	1038	C	N3-C4	-10.67	1.26	1.33
1	A	965	G	N3-C4	-10.66	1.27	1.35
1	A	2083	G	N7-C5	-10.66	1.32	1.39
1	A	2275	C	C2-N3	-10.66	1.27	1.35
1	A	2024	A	C5'-C4'	10.66	1.64	1.51
1	A	1032	A	C5-C6	-10.65	1.31	1.41
1	A	368	A	C8-N7	-10.65	1.24	1.31
1	A	2036	G	N1-C2	-10.65	1.29	1.37
1	A	1291	A	N9-C4	-10.64	1.31	1.37
1	A	2045	A	C6-N1	-10.64	1.28	1.35
1	A	442	G	N3-C4	-10.63	1.28	1.35
1	A	2054	G	N9-C4	-10.64	1.29	1.38
1	A	1980	A	N9-C4	-10.62	1.31	1.37
1	A	1024	A	N7-C5	-10.62	1.32	1.39
1	A	721	A	N7-C5	-10.61	1.32	1.39
1	A	2058	A	N3-C4	-10.61	1.28	1.34
1	A	202	A	N7-C5	-10.61	1.32	1.39
1	A	523	A	N9-C4	-10.60	1.31	1.37
1	A	608	C	N3-C4	-10.59	1.26	1.33
1	A	125	A	N9-C4	-10.59	1.31	1.37
1	A	2702	A	N3-C4	-10.58	1.28	1.34
1	A	1029	C	C5'-C4'	10.58	1.64	1.51
1	A	2551	G	C8-N7	-10.57	1.24	1.30
1	A	1374	G	C8-N7	-10.56	1.24	1.30
1	A	1012	G	N7-C5	-10.56	1.32	1.39
1	A	2520	U	C2-N3	-10.53	1.30	1.37
1	A	1207	G	C5-C6	-10.53	1.31	1.42
1	A	1227	U	N1-C6	10.53	1.47	1.38
1	A	958	U	C2-N3	10.52	1.45	1.37
1	A	1195	A	C5-C6	-10.51	1.31	1.41
1	A	14	A	C6-N6	-10.50	1.25	1.33
1	A	2668	A	C8-N7	-10.50	1.24	1.31
1	A	2473	G	C5-C6	-10.49	1.31	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	558	A	N7-C5	-10.49	1.32	1.39
1	A	2456	G	N1-C2	-10.49	1.29	1.37
1	A	2845	G	N3-C4	-10.48	1.28	1.35
1	A	599	A	N9-C4	10.48	1.44	1.37
1	A	1288	G	C6-N1	-10.48	1.32	1.39
1	A	2801	C	N3-C4	-10.47	1.26	1.33
1	A	393	G	C5-C4	10.47	1.45	1.38
1	A	2062	G	N3-C4	-10.46	1.28	1.35
1	A	863	G	N9-C8	-10.46	1.30	1.37
1	A	506	A	N7-C5	-10.45	1.32	1.39
1	A	2483	C	N3-C4	-10.45	1.26	1.33
1	A	850	G	N1-C2	-10.44	1.29	1.37
1	A	2079	G	N7-C5	-10.44	1.32	1.39
1	A	640	G	P-O5'	10.42	1.70	1.59
1	A	866	A	N7-C5	-10.42	1.32	1.39
1	A	990	G	C6-N1	-10.42	1.32	1.39
1	A	1710	G	C5-C4	-10.41	1.31	1.38
1	A	493	A	N7-C5	-10.41	1.33	1.39
1	A	1045	A	N7-C5	-10.41	1.33	1.39
1	A	1040	A	C6-N1	-10.41	1.28	1.35
1	A	2471	G	C5-C4	-10.41	1.31	1.38
1	A	2025	A	N3-C4	-10.40	1.28	1.34
1	A	201	C	C4-C5	-10.40	1.34	1.43
1	A	1032	A	C5-C4	-10.40	1.31	1.38
1	A	2077	C	P-O5'	10.40	1.70	1.59
1	A	990	G	C5-C6	-10.39	1.31	1.42
1	A	646	A	N3-C4	-10.38	1.28	1.34
1	A	1015	C	N1-C6	-10.37	1.30	1.37
1	A	1698	A	N7-C5	-10.37	1.33	1.39
1	A	2903	A	C5-C4	-10.37	1.31	1.38
1	A	643	G	C2-N2	-10.36	1.24	1.34
1	A	865	A	N9-C8	-10.36	1.29	1.37
1	A	2027	G	N3-C4	-10.35	1.28	1.35
1	A	1696	C	C2-N3	-10.35	1.27	1.35
1	A	1308	C	C2-N3	-10.35	1.27	1.35
1	A	1980	A	N7-C5	-10.34	1.33	1.39
1	A	1357	G	N1-C2	-10.33	1.29	1.37
1	A	646	A	N9-C4	-10.33	1.31	1.37
1	A	1181	G	C8-N7	-10.32	1.24	1.30
1	A	30	G	N3-C4	-10.32	1.28	1.35
1	A	2849	A	N9-C4	-10.32	1.31	1.37
1	A	639	U	O3'-P	10.31	1.73	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2899	A	N9-C4	10.30	1.44	1.37
1	A	265	A	C5-C4	-10.30	1.31	1.38
1	A	896	U	C2-N3	-10.29	1.30	1.37
1	A	193	A	C8-N7	-10.28	1.24	1.31
1	A	479	C	C2-N3	-10.28	1.27	1.35
1	A	2025	A	C2-N3	-10.27	1.24	1.33
1	A	995	U	C4-C5	-10.27	1.34	1.43
1	A	2029	G	N3-C4	-10.27	1.28	1.35
1	A	441	C	N3-C4	-10.25	1.26	1.33
1	A	2568	A	C5-C4	-10.25	1.31	1.38
1	A	565	G	N9-C4	-10.25	1.29	1.38
1	A	2542	C	N1-C2	10.23	1.50	1.40
1	A	1066	G	C6-N1	-10.23	1.32	1.39
1	A	1234	G	N9-C4	10.22	1.46	1.38
1	A	1266	G	N9-C4	-10.21	1.29	1.38
1	A	1236	G	N3-C4	-10.21	1.28	1.35
1	A	2667	G	N9-C4	-10.21	1.29	1.38
1	A	1980	A	N3-C4	-10.20	1.28	1.34
2	B	85	U	N1-C2	10.19	1.47	1.38
1	A	2035	C	N3-C4	-10.18	1.26	1.33
1	A	1036	C	N1-C6	-10.17	1.31	1.37
1	A	2065	G	C5-C4	-10.15	1.31	1.38
1	A	625	G	C2-N3	-10.15	1.24	1.32
1	A	1029	C	C4-C5	-10.13	1.34	1.43
1	A	1699	A	C5-C4	-10.13	1.31	1.38
1	A	18	C	C5-C6	-10.13	1.26	1.34
1	A	53	A	N9-C4	-10.12	1.31	1.37
1	A	2488	C	C4-C5	-10.11	1.34	1.43
1	A	1288	G	N1-C2	-10.10	1.29	1.37
1	A	2024	A	C8-N7	-10.10	1.24	1.31
1	A	1292	A	N7-C5	-10.09	1.33	1.39
1	A	2056	G	N9-C4	-10.09	1.29	1.38
1	A	2056	G	N1-C2	-10.08	1.29	1.37
1	A	15	G	C5-C4	-10.07	1.31	1.38
11	K	13	HIS	C-N	-10.07	1.10	1.34
1	A	368	A	N7-C5	-10.07	1.33	1.39
1	A	990	G	C5-C4	-10.06	1.31	1.38
1	A	31	C	N3-C4	-10.05	1.26	1.33
1	A	198	A	N9-C4	-10.05	1.31	1.37
1	A	2486	A	C6-N1	-10.04	1.28	1.35
1	A	2474	G	C2-N3	-10.03	1.24	1.32
1	A	2845	G	N7-C5	-10.03	1.33	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2608	G	N9-C8	-10.02	1.30	1.37
1	A	14	A	N7-C5	-10.02	1.33	1.39
1	A	963	A	N7-C5	-10.02	1.33	1.39
1	A	17	G	C5-C6	-10.01	1.32	1.42
1	A	14	A	C5-C4	-10.01	1.31	1.38
1	A	1015	C	N3-C4	-10.00	1.26	1.33
1	A	879	U	C2-N3	-10.00	1.30	1.37
1	A	1303	A	N7-C5	-9.99	1.33	1.39
1	A	708	G	C5'-C4'	9.99	1.63	1.51
1	A	1020	G	C5-C6	-9.99	1.32	1.42
1	A	2077	C	N1-C6	-9.99	1.31	1.37
1	A	1012	G	C5-C6	-9.98	1.32	1.42
1	A	2516	G	N9-C8	-9.97	1.30	1.37
1	A	907	G	C5-C6	-9.97	1.32	1.42
1	A	2868	G	N7-C5	-9.96	1.33	1.39
1	A	1804	U	C2-N3	-9.96	1.30	1.37
1	A	984	G	C5-C4	-9.95	1.31	1.38
1	A	2041	A	N7-C5	-9.95	1.33	1.39
1	A	2893	A	N7-C5	-9.95	1.33	1.39
1	A	503	A	C5-C6	-9.94	1.32	1.41
1	A	2411	A	N7-C5	-9.94	1.33	1.39
1	A	2027	G	C2-N3	-9.93	1.24	1.32
1	A	2062	G	N7-C5	-9.89	1.33	1.39
1	A	1296	C	N3-C4	-9.89	1.27	1.33
1	A	1019	A	N7-C5	-9.87	1.33	1.39
1	A	36	G	C6-N1	-9.87	1.32	1.39
1	A	644	C	N3-C4	-9.86	1.27	1.33
1	A	1816	A	N9-C4	-9.86	1.31	1.37
1	A	519	G	N7-C5	-9.86	1.33	1.39
1	A	2461	A	N9-C8	-9.86	1.29	1.37
1	A	563	G	N1-C2	-9.85	1.29	1.37
1	A	2073	G	C6-N1	-9.85	1.32	1.39
1	A	253	G	C2-N3	-9.85	1.24	1.32
1	A	2667	G	N1-C2	-9.85	1.29	1.37
1	A	621	A	N9-C4	-9.84	1.31	1.37
1	A	667	G	N7-C5	-9.84	1.33	1.39
1	A	2868	G	C8-N7	-9.83	1.25	1.30
1	A	555	C	N3-C4	-9.82	1.27	1.33
1	A	377	U	C2-N3	9.81	1.44	1.37
1	A	988	C	N3-C4	-9.81	1.27	1.33
1	A	2758	G	C6-N1	-9.81	1.32	1.39
1	A	1800	A	N7-C5	-9.81	1.33	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2544	C	N1-C6	-9.78	1.31	1.37
1	A	1028	G	C3'-O3'	9.77	1.55	1.42
1	A	1200	A	C5-C6	-9.77	1.32	1.41
1	A	1231	A	C8-N7	-9.77	1.24	1.31
1	A	874	A	N7-C5	-9.76	1.33	1.39
1	A	1324	A	C8-N7	-9.76	1.24	1.31
1	A	442	G	C2-N3	-9.76	1.25	1.32
1	A	1014	U	C4-C5	-9.76	1.34	1.43
1	A	2460	A	C5-C6	-9.75	1.32	1.41
1	A	442	G	N9-C4	-9.75	1.30	1.38
1	A	643	G	N3-C4	-9.74	1.28	1.35
1	A	1000	G	C6-N1	-9.73	1.32	1.39
1	A	2008	A	N9-C4	-9.73	1.32	1.37
1	A	35	G	C2-N2	-9.73	1.24	1.34
1	A	68	A	N3-C4	-9.73	1.29	1.34
1	A	223	G	C6-N1	-9.72	1.32	1.39
1	A	253	G	C5-C4	-9.72	1.31	1.38
1	A	1241	A	N9-C4	9.72	1.43	1.37
1	A	709	U	C2-N3	-9.72	1.30	1.37
1	A	1692	C	C2-N3	-9.71	1.27	1.35
1	A	2411	A	N9-C4	-9.71	1.32	1.37
1	A	125	A	C5-C6	-9.71	1.32	1.41
1	A	963	A	C6-N1	-9.69	1.28	1.35
1	A	825	G	C8-N7	-9.69	1.25	1.30
1	A	994	A	C5-C6	-9.69	1.32	1.41
1	A	1712	A	N9-C4	-9.69	1.32	1.37
1	A	491	C	C5-C6	-9.68	1.26	1.34
1	A	1006	G	C5-C6	-9.67	1.32	1.42
1	A	1229	G	C8-N7	-9.67	1.25	1.30
1	A	2481	G	C2-N2	-9.67	1.24	1.34
1	A	495	A	C5-C4	-9.66	1.31	1.38
1	A	2897	A	N9-C4	-9.66	1.32	1.37
1	A	2482	G	C2-N2	-9.66	1.24	1.34
1	A	491	C	C2-N3	-9.65	1.28	1.35
1	A	2665	G	N9-C4	-9.65	1.30	1.38
1	A	616	G	C2-N3	-9.65	1.25	1.32
1	A	1181	G	C5-C4	-9.65	1.31	1.38
1	A	30	G	N7-C5	-9.65	1.33	1.39
1	A	427	A	N9-C4	-9.64	1.32	1.37
1	A	1030	C	N3-C4	-9.63	1.27	1.33
1	A	535	G	N7-C5	-9.63	1.33	1.39
1	A	984	G	C8-N7	-9.63	1.25	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1708	A	N7-C5	-9.63	1.33	1.39
1	A	554	C	C4-C5	-9.62	1.35	1.43
1	A	825	G	C5-C4	-9.61	1.31	1.38
1	A	2309	G	N1-C2	-9.61	1.30	1.37
1	A	2808	A	N9-C4	-9.61	1.32	1.37
1	A	2702	A	N7-C5	-9.60	1.33	1.39
1	A	2758	G	N3-C4	-9.60	1.28	1.35
1	A	906	A	N9-C4	9.59	1.43	1.37
1	A	665	G	C8-N7	-9.58	1.25	1.30
1	A	1017	A	N9-C8	-9.57	1.30	1.37
1	A	272	C	N3-C4	-9.56	1.27	1.33
1	A	1006	G	N7-C5	-9.54	1.33	1.39
1	A	2019	G	C5-C6	9.54	1.51	1.42
1	A	2049	U	N3-C4	-9.54	1.29	1.38
1	A	24	G	N3-C4	-9.53	1.28	1.35
1	A	71	A	N9-C4	-9.53	1.32	1.37
1	A	1236	G	C8-N7	-9.53	1.25	1.30
1	A	1045	A	C5-C6	-9.53	1.32	1.41
1	A	2028	A	C5-C4	-9.53	1.32	1.38
1	A	2056	G	C5-C6	-9.53	1.32	1.42
1	A	30	G	N9-C4	-9.52	1.30	1.38
1	A	1694	A	C5-C4	-9.51	1.32	1.38
1	A	2527	U	N1-C6	9.51	1.46	1.38
1	A	548	A	C5-C4	9.51	1.45	1.38
1	A	22	C	C4-N4	-9.51	1.25	1.33
1	A	639	U	C3'-O3'	9.51	1.55	1.42
1	A	125	A	N7-C5	-9.50	1.33	1.39
1	A	598	G	C6-N1	-9.50	1.32	1.39
1	A	512	A	N7-C5	-9.49	1.33	1.39
1	A	445	G	N3-C4	-9.49	1.28	1.35
1	A	986	G	C6-N1	-9.49	1.32	1.39
1	A	1065	A	N7-C5	-9.48	1.33	1.39
1	A	1033	G	N9-C4	9.47	1.45	1.38
1	A	1712	A	N3-C4	-9.47	1.29	1.34
1	A	520	G	N7-C5	-9.46	1.33	1.39
1	A	2551	G	N9-C8	-9.46	1.31	1.37
1	A	26	G	N1-C2	-9.45	1.30	1.37
1	A	1253	G	C6-N1	-9.44	1.32	1.39
1	A	2046	U	N1-C2	9.43	1.47	1.38
1	A	984	G	C5-C6	-9.42	1.32	1.42
1	A	849	A	N9-C4	-9.41	1.32	1.37
1	A	643	G	C2-N3	-9.41	1.25	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2005	A	N9-C4	-9.41	1.32	1.37
1	A	1027	A	C5-C4	-9.40	1.32	1.38
1	A	1228	A	N9-C4	-9.39	1.32	1.37
1	A	1810	A	N7-C5	-9.39	1.33	1.39
1	A	37	C	N1-C6	-9.39	1.31	1.37
1	A	868	A	C6-N6	-9.38	1.26	1.33
1	A	606	G	N7-C5	-9.38	1.33	1.39
1	A	2567	C	N3-C4	-9.38	1.27	1.33
1	A	2517	G	C2-N3	-9.36	1.25	1.32
1	A	1695	G	N3-C4	-9.36	1.28	1.35
1	A	444	C	N3-C4	-9.35	1.27	1.33
1	A	1692	C	N3-C4	-9.35	1.27	1.33
1	A	2031	G	C5-C4	-9.35	1.31	1.38
1	A	503	A	C6-N1	-9.34	1.29	1.35
1	A	953	C	N1-C6	-9.34	1.31	1.37
1	A	878	C	N3-C4	-9.32	1.27	1.33
1	A	2045	A	C5-C6	-9.32	1.32	1.41
1	A	648	G	C8-N7	-9.31	1.25	1.30
1	A	648	G	N7-C5	-9.31	1.33	1.39
1	A	2593	A	N9-C4	9.30	1.43	1.37
1	A	954	A	C5-C6	-9.30	1.32	1.41
1	A	546	A	N7-C5	-9.30	1.33	1.39
1	A	568	C	N3-C4	-9.29	1.27	1.33
1	A	606	G	N1-C2	-9.29	1.30	1.37
1	A	17	G	N7-C5	-9.29	1.33	1.39
1	A	45	G	C8-N7	-9.29	1.25	1.30
1	A	2023	C	C3'-O3'	9.29	1.55	1.42
1	A	1252	A	N9-C4	-9.28	1.32	1.37
1	A	1706	U	C2-N3	-9.27	1.31	1.37
1	A	2059	G	N1-C2	-9.27	1.30	1.37
1	A	876	G	C5-C4	-9.26	1.31	1.38
1	A	1346	G	C5-C4	-9.26	1.31	1.38
1	A	205	U	C2-N3	-9.26	1.31	1.37
1	A	1036	C	C4-C5	-9.25	1.35	1.43
1	A	850	G	C6-N1	-9.24	1.33	1.39
1	A	903	G	C6-N1	-9.24	1.33	1.39
1	A	625	G	N9-C4	-9.23	1.30	1.38
1	A	1201	G	C8-N7	-9.23	1.25	1.30
1	A	212	C	N1-C6	-9.23	1.31	1.37
1	A	2855	A	C5-C4	-9.23	1.32	1.38
1	A	541	G	C2-N3	-9.22	1.25	1.32
1	A	24	G	N9-C4	-9.22	1.30	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	426	G	N9-C4	-9.21	1.30	1.38
1	A	561	C	N1-C6	-9.22	1.31	1.37
1	A	1206	G	C6-N1	-9.21	1.33	1.39
1	A	428	G	C2-N3	-9.20	1.25	1.32
1	A	1173	A	C5-C4	-9.20	1.32	1.38
1	A	2031	G	N9-C4	-9.19	1.30	1.38
1	A	857	C	N1-C6	-9.19	1.31	1.37
1	A	1175	G	N9-C4	-9.19	1.30	1.38
1	A	2478	A	C5-C6	9.19	1.49	1.41
1	A	2856	U	N1-C2	9.19	1.46	1.38
1	A	496	G	N7-C5	-9.18	1.33	1.39
1	A	35	G	N1-C2	-9.18	1.30	1.37
1	A	70	G	C6-N1	-9.17	1.33	1.39
1	A	2516	G	C8-N7	-9.17	1.25	1.30
1	A	1188	A	P-O5'	9.17	1.69	1.59
1	A	506	A	N3-C4	-9.17	1.29	1.34
1	A	543	G	N9-C4	-9.16	1.30	1.38
1	A	1198	G	C5-C6	-9.15	1.33	1.42
1	A	1017	A	N3-C4	-9.15	1.29	1.34
1	A	2059	G	N9-C8	-9.15	1.31	1.37
1	A	2639	C	C2-N3	-9.14	1.28	1.35
1	A	2850	G	C5-C4	-9.14	1.31	1.38
1	A	263	G	N7-C5	-9.14	1.33	1.39
1	A	2886	G	C8-N7	-9.14	1.25	1.30
1	A	570	U	C2-N3	-9.13	1.31	1.37
1	A	1294	G	C5-C4	-9.13	1.31	1.38
1	A	2394	G	N3-C4	-9.13	1.29	1.35
1	A	557	G	C8-N7	-9.12	1.25	1.30
1	A	1816	A	C5-C6	-9.12	1.32	1.41
1	A	806	A	N9-C4	-9.11	1.32	1.37
1	A	907	G	C6-N1	-9.11	1.33	1.39
1	A	621	A	N9-C8	-9.11	1.30	1.37
1	A	1198	G	C8-N7	-9.11	1.25	1.30
1	A	847	A	N7-C5	-9.10	1.33	1.39
1	A	650	U	C2-O2	-9.10	1.14	1.22
1	A	1241	A	C6-N1	-9.10	1.29	1.35
1	A	2084	G	N7-C5	-9.10	1.33	1.39
1	A	512	A	N9-C4	-9.09	1.32	1.37
1	A	664	G	C5-C4	-9.09	1.31	1.38
1	A	2544	C	C4-C5	-9.08	1.35	1.43
1	A	2665	G	N3-C4	-9.08	1.29	1.35
1	A	855	U	C2-N3	-9.07	1.31	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	993	C	N3-C4	-9.07	1.27	1.33
1	A	2004	A	N7-C5	-9.07	1.33	1.39
1	A	1010	G	N3-C4	-9.07	1.29	1.35
1	A	2509	A	N7-C5	-9.06	1.33	1.39
1	A	1298	G	C5-C4	-9.05	1.32	1.38
1	A	999	U	N3-C4	-9.05	1.30	1.38
1	A	2650	G	C6-N1	-9.04	1.33	1.39
1	A	18	C	C4-C5	-9.04	1.35	1.43
1	A	1236	G	N9-C4	-9.04	1.30	1.38
1	A	1265	G	C2-N2	-9.04	1.25	1.34
1	A	1694	A	N7-C5	-9.04	1.33	1.39
1	A	595	G	C8-N7	9.04	1.36	1.30
1	A	2364	G	P-O5'	9.04	1.68	1.59
1	A	2758	G	C2-N2	-9.03	1.25	1.34
1	A	953	C	N3-C4	-9.02	1.27	1.33
1	A	1037	A	N3-C4	-9.02	1.29	1.34
1	A	2065	G	N1-C2	-9.02	1.30	1.37
1	A	1006	G	N9-C4	-9.02	1.30	1.38
1	A	613	G	N9-C8	-9.02	1.31	1.37
1	A	1032	A	C8-N7	-9.01	1.25	1.31
1	A	1297	G	N7-C5	-9.01	1.33	1.39
1	A	582	G	C6-N1	-9.00	1.33	1.39
1	A	366	G	N7-C5	-9.00	1.33	1.39
1	A	2268	A	N7-C5	-9.00	1.33	1.39
1	A	2714	U	C2-N3	-8.99	1.31	1.37
1	A	1188	A	N7-C5	-8.99	1.33	1.39
1	A	607	C	C4-N4	-8.99	1.25	1.33
1	A	2488	C	C5-C6	-8.99	1.27	1.34
1	A	548	A	N7-C5	-8.98	1.33	1.39
1	A	640	G	N3-C4	-8.98	1.29	1.35
1	A	524	A	N9-C4	-8.97	1.32	1.37
1	A	623	C	N3-C4	-8.97	1.27	1.33
1	A	1199	A	N7-C5	-8.97	1.33	1.39
1	A	2300	A	N3-C4	-8.97	1.29	1.34
1	A	2461	A	C5-C6	-8.97	1.32	1.41
1	A	2740	A	N3-C4	-8.96	1.29	1.34
1	A	2519	U	P-O5'	8.96	1.68	1.59
1	A	1255	A	C5-C6	-8.96	1.32	1.41
1	A	2586	C	N3-C4	-8.96	1.27	1.33
1	A	608	C	N1-C6	-8.95	1.31	1.37
1	A	2568	A	N7-C5	-8.96	1.33	1.39
1	A	534	G	N7-C5	-8.95	1.33	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	985	A	N3-C4	-8.95	1.29	1.34
1	A	729	G	C6-N1	-8.95	1.33	1.39
1	A	850	G	C5-C4	-8.94	1.32	1.38
1	A	2064	A	O3'-P	8.95	1.71	1.61
1	A	2032	A	C5-C6	-8.94	1.33	1.41
1	A	2473	G	N3-C4	-8.94	1.29	1.35
1	A	2664	U	P-O5'	8.94	1.68	1.59
1	A	910	C	C2-N3	-8.94	1.28	1.35
1	A	2066	G	C5-C4	-8.94	1.32	1.38
1	A	516	A	N7-C5	-8.93	1.33	1.39
1	A	850	G	N3-C4	-8.93	1.29	1.35
1	A	860	U	C2-N3	-8.92	1.31	1.37
1	A	1283	G	N3-C4	-8.91	1.29	1.35
1	A	1305	U	C2-N3	-8.91	1.31	1.37
1	A	2804	G	N1-C2	-8.91	1.30	1.37
1	A	1005	G	N9-C4	8.90	1.45	1.38
1	A	1263	A	N7-C5	-8.89	1.33	1.39
1	A	1205	U	C2-N3	-8.88	1.31	1.37
1	A	24	G	C5-C4	-8.88	1.32	1.38
1	A	641	A	N7-C5	-8.88	1.33	1.39
1	A	582	G	N1-C2	-8.87	1.30	1.37
1	A	1697	G	N9-C4	-8.87	1.30	1.38
1	A	2036	G	N9-C4	-8.87	1.30	1.38
1	A	2078	A	N9-C4	8.87	1.43	1.37
1	A	198	A	C5-C4	-8.87	1.32	1.38
1	A	2300	A	C5-C4	-8.86	1.32	1.38
1	A	1006	G	N3-C4	-8.86	1.29	1.35
1	A	2737	C	N3-C4	-8.86	1.27	1.33
1	A	15	G	C6-N1	-8.85	1.33	1.39
1	A	1357	G	C6-O6	-8.85	1.16	1.24
1	A	965	G	N9-C4	-8.85	1.30	1.38
1	A	1180	G	N9-C4	8.85	1.45	1.38
1	A	2044	C	N3-C4	-8.85	1.27	1.33
1	A	1169	G	N9-C4	-8.84	1.30	1.38
1	A	1065	A	C5-C6	-8.84	1.33	1.41
1	A	999	U	C2-N3	-8.83	1.31	1.37
1	A	1352	C	C2-N3	-8.83	1.28	1.35
1	A	2806	U	N1-C2	8.83	1.46	1.38
1	A	1374	G	C5-C6	-8.83	1.33	1.42
1	A	355	G	N7-C5	-8.83	1.33	1.39
1	A	1225	G	C6-N1	-8.83	1.33	1.39
1	A	265	A	N9-C4	-8.83	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	973	A	N9-C4	-8.83	1.32	1.37
1	A	515	G	N7-C5	-8.82	1.33	1.39
1	A	2293	A	N9-C4	-8.81	1.32	1.37
1	A	180	G	N9-C4	8.81	1.45	1.38
1	A	1016	G	N9-C8	-8.81	1.31	1.37
1	A	1252	A	N7-C5	-8.81	1.33	1.39
1	A	1204	G	N9-C4	-8.80	1.30	1.38
1	A	908	A	N7-C5	-8.80	1.33	1.39
1	A	1363	U	C5-C6	-8.80	1.26	1.34
1	A	902	A	N9-C4	8.80	1.43	1.37
1	A	514	G	C5-C4	-8.80	1.32	1.38
1	A	2528	C	C2-N3	-8.80	1.28	1.35
1	A	375	A	N9-C4	8.80	1.43	1.37
1	A	2460	A	N7-C5	-8.79	1.33	1.39
1	A	2604	A	C6-N1	-8.79	1.29	1.35
1	A	1034	A	C5-C4	-8.78	1.32	1.38
1	A	860	U	C4-O4	-8.78	1.16	1.23
1	A	248	G	N7-C5	-8.78	1.33	1.39
1	A	53	A	C6-N6	-8.77	1.26	1.33
1	A	2037	G	C6-N1	-8.77	1.33	1.39
1	A	617	A	N7-C5	-8.77	1.33	1.39
1	A	1236	G	C6-N1	-8.77	1.33	1.39
1	A	535	G	C8-N7	-8.76	1.25	1.30
1	A	1239	C	N3-C4	-8.76	1.27	1.33
1	A	1322	G	C8-N7	-8.75	1.25	1.30
1	A	519	G	C2-N3	-8.75	1.25	1.32
1	A	1693	G	N9-C4	-8.75	1.30	1.38
1	A	2457	A	N3-C4	8.74	1.40	1.34
1	A	1072	A	N7-C5	-8.74	1.34	1.39
1	A	609	U	C2-N3	-8.74	1.31	1.37
1	A	255	G	C6-N1	-8.73	1.33	1.39
1	A	900	G	N9-C4	-8.73	1.30	1.38
1	A	1276	G	C6-N1	-8.73	1.33	1.39
1	A	1046	G	N9-C8	-8.73	1.31	1.37
1	A	1225	G	N3-C4	-8.73	1.29	1.35
1	A	955	A	N9-C4	-8.72	1.32	1.37
1	A	2759	G	N3-C4	-8.72	1.29	1.35
1	A	1369	G	N7-C5	-8.72	1.34	1.39
1	A	986	G	N7-C5	-8.72	1.34	1.39
1	A	2380	G	N7-C5	-8.71	1.34	1.39
1	A	736	C	N3-C4	-8.71	1.27	1.33
1	A	702	U	C2-N3	-8.71	1.31	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	854	G	C5-C4	-8.71	1.32	1.38
1	A	883	C	N1-C6	-8.71	1.31	1.37
1	A	1253	G	N7-C5	-8.70	1.34	1.39
1	A	2319	U	N1-C6	-8.70	1.30	1.38
1	A	1208	A	N7-C5	-8.70	1.34	1.39
1	A	36	G	C5-C6	-8.70	1.33	1.42
1	A	640	G	C5'-C4'	8.70	1.61	1.51
1	A	857	C	N3-C4	-8.70	1.27	1.33
1	A	2814	C	C2-N3	-8.69	1.28	1.35
1	A	984	G	N7-C5	-8.69	1.34	1.39
1	A	2455	G	C6-N1	-8.69	1.33	1.39
1	A	814	A	N7-C5	-8.69	1.34	1.39
1	A	2078	A	C6-N6	-8.69	1.27	1.33
1	A	2065	G	C6-O6	-8.67	1.16	1.24
1	A	1029	C	C5-C6	-8.67	1.27	1.34
1	A	2903	A	C5-C6	-8.67	1.33	1.41
1	A	864	A	N1-C2	-8.66	1.26	1.34
1	A	2368	G	N3-C4	-8.66	1.29	1.35
1	A	2527	U	C4-C5	-8.66	1.35	1.43
1	A	2707	C	N3-C4	-8.65	1.27	1.33
1	A	2797	C	C4-C5	-8.65	1.36	1.43
1	A	621	A	C5-C4	-8.65	1.32	1.38
1	A	864	A	C6-N6	-8.65	1.27	1.33
1	A	2094	G	N7-C5	-8.64	1.34	1.39
1	A	557	G	N9-C8	-8.64	1.31	1.37
1	A	2454	C	N1-C6	8.64	1.42	1.37
1	A	668	C	O3'-P	8.64	1.71	1.61
1	A	839	A	N7-C5	-8.64	1.34	1.39
1	A	2032	A	N9-C4	-8.64	1.32	1.37
1	A	2077	C	C5-C6	-8.63	1.27	1.34
1	A	2375	U	C2-N3	-8.63	1.31	1.37
1	A	1049	C	N3-C4	-8.63	1.27	1.33
1	A	1616	A	N9-C4	-8.63	1.32	1.37
1	A	2373	A	N9-C4	8.63	1.43	1.37
1	A	2812	U	P-O5'	8.62	1.68	1.59
1	A	1812	A	N7-C5	-8.62	1.34	1.39
1	A	2868	G	N9-C8	-8.62	1.31	1.37
1	A	872	U	C2-N3	-8.62	1.31	1.37
1	A	995	U	N1-C2	-8.61	1.30	1.38
1	A	1683	U	C2-N3	-8.61	1.31	1.37
1	A	14	A	C5-C6	-8.61	1.33	1.41
1	A	839	A	C5-C4	-8.61	1.32	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	869	G	C5-C4	-8.60	1.32	1.38
1	A	1018	A	N7-C5	-8.60	1.34	1.39
1	A	1745	A	N7-C5	-8.59	1.34	1.39
1	A	707	G	C3'-O3'	8.59	1.54	1.42
1	A	2529	G	N1-C2	-8.58	1.30	1.37
1	A	2599	A	N7-C5	-8.58	1.34	1.39
1	A	2802	A	N9-C4	8.58	1.43	1.37
1	A	2482	G	C4'-C3'	-8.58	1.43	1.53
1	A	378	C	P-O5'	8.58	1.68	1.59
1	A	858	U	N3-C4	-8.58	1.30	1.38
1	A	1009	C	C2-N3	-8.57	1.28	1.35
1	A	52	A	N9-C4	8.57	1.43	1.37
1	A	651	A	N7-C5	-8.57	1.34	1.39
1	A	622	A	N9-C4	-8.57	1.32	1.37
1	A	2644	C	N3-C4	-8.57	1.27	1.33
1	A	2869	G	C6-N1	-8.57	1.33	1.39
1	A	1265	G	C5-C4	-8.56	1.32	1.38
1	A	1040	A	C5-C6	-8.56	1.33	1.41
1	A	2394	G	N9-C4	-8.56	1.31	1.38
1	A	1253	G	N3-C4	-8.56	1.29	1.35
1	A	125	A	N3-C4	-8.56	1.29	1.34
1	A	2509	A	N9-C4	-8.56	1.32	1.37
1	A	1264	A	N3-C4	-8.56	1.29	1.34
1	A	565	G	N3-C4	-8.56	1.29	1.35
1	A	839	A	N9-C8	-8.55	1.30	1.37
1	A	1695	G	C6-N1	-8.55	1.33	1.39
1	A	506	A	C2-N3	-8.55	1.25	1.33
1	A	719	G	N7-C5	-8.55	1.34	1.39
1	A	2667	G	C5-C4	-8.55	1.32	1.38
1	A	1415	A	N7-C5	-8.54	1.34	1.39
1	A	557	G	N7-C5	-8.54	1.34	1.39
1	A	1286	G	N9-C8	-8.54	1.31	1.37
1	A	241	C	N1-C2	8.54	1.48	1.40
1	A	1827	C	N1-C6	-8.54	1.32	1.37
1	A	2803	A	C8-N7	-8.53	1.25	1.31
1	A	2857	A	C8-N7	-8.53	1.25	1.31
1	A	518	A	N9-C4	-8.53	1.32	1.37
1	A	1000	G	C5-C6	-8.53	1.33	1.42
1	A	1296	C	C2-N3	-8.52	1.28	1.35
1	A	1689	G	C5-C4	-8.52	1.32	1.38
1	A	200	A	N7-C5	-8.52	1.34	1.39
1	A	2096	G	C6-N1	-8.52	1.33	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1705	G	C6-N1	-8.52	1.33	1.39
1	A	857	C	C2-O2	-8.51	1.16	1.24
1	A	2468	C	N3-C4	-8.50	1.27	1.33
1	A	2390	U	C2-N3	-8.50	1.31	1.37
1	A	632	U	C2-N3	-8.49	1.31	1.37
1	A	495	A	N9-C8	-8.49	1.30	1.37
2	B	76	A	C8-N7	-8.49	1.25	1.31
1	A	718	C	N3-C4	-8.48	1.28	1.33
1	A	866	A	C6-N1	-8.48	1.29	1.35
1	A	2541	U	C2-N3	-8.48	1.31	1.37
1	A	2293	A	N3-C4	-8.48	1.29	1.34
1	A	993	C	C5-C6	-8.47	1.27	1.34
1	A	1049	C	C5-C6	-8.47	1.27	1.34
1	A	2039	G	N7-C5	-8.47	1.34	1.39
1	A	1692	C	C5-C6	-8.47	1.27	1.34
1	A	848	U	C2-N3	-8.46	1.31	1.37
1	A	2301	A	N7-C5	-8.46	1.34	1.39
1	A	2626	G	C6-N1	-8.46	1.33	1.39
1	A	629	A	C5-C6	-8.46	1.33	1.41
1	A	200	A	N9-C8	-8.45	1.30	1.37
1	A	1289	A	C5-C6	-8.45	1.33	1.41
1	A	2456	G	C2-N2	-8.45	1.26	1.34
1	A	2895	G	P-O5'	8.45	1.68	1.59
1	A	648	G	N9-C4	8.45	1.44	1.38
1	A	880	A	C6-N1	-8.45	1.29	1.35
1	A	612	U	N3-C4	-8.44	1.30	1.38
1	A	2272	U	C2-N3	-8.45	1.31	1.37
1	A	2481	G	O3'-P	8.45	1.71	1.61
1	A	819	A	C5-C4	-8.44	1.32	1.38
1	A	2050	A	N7-C5	-8.44	1.34	1.39
1	A	2298	G	N9-C8	-8.44	1.31	1.37
1	A	1050	C	N3-C4	-8.44	1.28	1.33
1	A	1254	C	C5-C6	-8.43	1.27	1.34
1	A	2045	A	C6-N6	-8.43	1.27	1.33
1	A	1037	A	N7-C5	-8.43	1.34	1.39
1	A	1801	C	N3-C4	-8.43	1.28	1.33
1	A	177	G	N7-C5	-8.42	1.34	1.39
1	A	850	G	N7-C5	-8.42	1.34	1.39
1	A	1247	G	C5-C4	-8.42	1.32	1.38
1	A	2869	G	C5-C4	-8.42	1.32	1.38
1	A	2059	G	C6-N1	-8.41	1.33	1.39
1	A	720	A	N3-C4	-8.41	1.29	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2608	G	C8-N7	-8.41	1.25	1.30
1	A	1840	U	C2-N3	-8.41	1.31	1.37
1	A	2458	U	C4-C5	-8.41	1.35	1.43
1	A	641	A	C5-C6	-8.40	1.33	1.41
1	A	2456	G	N3-C4	-8.40	1.29	1.35
1	A	2314	A	N7-C5	-8.40	1.34	1.39
1	A	517	A	N9-C4	-8.40	1.32	1.37
1	A	607	C	N1-C2	-8.39	1.31	1.40
1	A	300	G	N9-C4	-8.39	1.31	1.38
1	A	254	A	N7-C5	-8.39	1.34	1.39
1	A	2064	A	C4'-C3'	8.39	1.62	1.53
1	A	198	A	N3-C4	-8.38	1.29	1.34
1	A	2061	U	C2-N3	-8.38	1.31	1.37
1	A	2277	G	C5-C4	-8.38	1.32	1.38
1	A	251	G	N7-C5	-8.38	1.34	1.39
1	A	892	U	N3-C4	-8.38	1.30	1.38
1	A	995	U	C5-C6	-8.37	1.26	1.34
1	A	1032	A	C6-N6	-8.37	1.27	1.33
1	A	1202	C	C4-C5	-8.37	1.36	1.43
1	A	1830	A	N9-C4	-8.37	1.32	1.37
1	A	1054	A	C8-N7	-8.36	1.25	1.31
1	A	1289	A	C8-N7	-8.36	1.25	1.31
1	A	2705	U	C2-N3	-8.36	1.31	1.37
1	A	2859	G	C6-N1	-8.36	1.33	1.39
1	A	651	A	C5-C4	-8.36	1.32	1.38
1	A	515	G	N1-C2	-8.36	1.31	1.37
1	A	872	U	C2-O2	-8.36	1.14	1.22
1	A	202	A	C2-N3	-8.36	1.26	1.33
1	A	2099	G	C5-C4	-8.35	1.32	1.38
1	A	501	C	C2-N3	-8.35	1.29	1.35
1	A	2701	G	C5-C4	-8.34	1.32	1.38
1	A	2481	G	N9-C8	-8.34	1.32	1.37
1	A	1334	C	N3-C4	-8.34	1.28	1.33
1	A	598	G	C8-N7	-8.34	1.25	1.30
1	A	2021	C	N3-C4	-8.34	1.28	1.33
1	A	2591	A	N7-C5	-8.34	1.34	1.39
1	A	253	G	N1-C2	-8.33	1.31	1.37
1	A	534	G	C8-N7	-8.33	1.25	1.30
1	A	1274	G	N7-C5	-8.33	1.34	1.39
1	A	566	U	N3-C4	-8.32	1.30	1.38
1	A	2293	A	N7-C5	-8.32	1.34	1.39
1	A	363	A	C8-N7	-8.31	1.25	1.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1265	G	C8-N7	-8.31	1.25	1.30
1	A	1299	U	C2-N3	-8.31	1.31	1.37
1	A	513	G	C6-N1	-8.31	1.33	1.39
1	A	818	U	C2-N3	-8.31	1.31	1.37
1	A	1018	A	C2-N3	-8.31	1.26	1.33
1	A	730	A	N9-C4	-8.30	1.32	1.37
1	A	665	G	N9-C8	-8.30	1.32	1.37
1	A	17	G	C5-C4	-8.30	1.32	1.38
1	A	2857	A	N3-C4	-8.30	1.29	1.34
1	A	366	G	N3-C4	-8.29	1.29	1.35
1	A	626	G	C2-N3	8.29	1.39	1.32
1	A	582	G	P-O5'	8.29	1.68	1.59
1	A	2759	G	C2-N2	-8.29	1.26	1.34
24	X	14	GLY	C-N	-8.29	1.15	1.34
1	A	877	G	C6-N1	-8.28	1.33	1.39
1	A	1175	G	C5-C4	-8.27	1.32	1.38
1	A	2642	U	C2-N3	-8.27	1.31	1.37
1	A	506	A	C5-C6	-8.27	1.33	1.41
1	A	1040	A	N7-C5	-8.27	1.34	1.39
1	A	85	G	N9-C4	-8.27	1.31	1.38
1	A	530	C	N1-C6	-8.27	1.32	1.37
1	A	846	G	C5-C6	8.26	1.50	1.42
1	A	2673	C	C5-C6	-8.26	1.27	1.34
1	A	1837	A	N9-C4	-8.26	1.32	1.37
1	A	2036	G	N7-C5	-8.26	1.34	1.39
1	A	727	G	C2-N3	-8.26	1.26	1.32
1	A	907	G	N9-C8	-8.26	1.32	1.37
1	A	571	A	N9-C4	-8.25	1.32	1.37
1	A	893	G	N9-C4	8.25	1.44	1.38
1	A	1012	G	N9-C4	-8.25	1.31	1.38
1	A	2077	C	C4'-C3'	8.25	1.62	1.53
1	A	2298	G	N7-C5	-8.25	1.34	1.39
1	A	725	A	N7-C5	-8.24	1.34	1.39
1	A	15	G	N7-C5	-8.24	1.34	1.39
1	A	1699	A	N9-C4	-8.24	1.32	1.37
1	A	1173	A	N7-C5	-8.24	1.34	1.39
1	A	52	A	N7-C5	-8.23	1.34	1.39
1	A	1032	A	C6-N1	-8.23	1.29	1.35
1	A	2668	A	C2-N3	8.23	1.41	1.33
1	A	867	U	C2-N3	-8.23	1.31	1.37
1	A	1307	G	C6-N1	-8.23	1.33	1.39
1	A	2901	U	C2-N3	-8.23	1.31	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2077	C	C5'-C4'	8.23	1.61	1.51
1	A	816	G	C6-N1	-8.22	1.33	1.39
1	A	2570	G	N9-C8	-8.22	1.32	1.37
1	A	1298	G	C2-N3	-8.22	1.26	1.32
1	A	2650	G	C8-N7	-8.22	1.26	1.30
1	A	1202	C	N1-C2	-8.22	1.31	1.40
1	A	2474	G	C5-C6	-8.22	1.34	1.42
1	A	1010	G	C8-N7	-8.21	1.26	1.30
1	A	1365	G	C5-C4	-8.21	1.32	1.38
1	A	2292	U	C2-N3	-8.21	1.32	1.37
1	A	2551	G	C6-N1	-8.21	1.33	1.39
1	A	31	C	C2-N3	-8.21	1.29	1.35
1	A	621	A	C6-N1	-8.21	1.29	1.35
1	A	954	A	C8-N7	-8.20	1.25	1.31
1	A	1619	A	N7-C5	-8.20	1.34	1.39
1	A	1704	C	C2-N3	-8.20	1.29	1.35
1	A	2886	G	N9-C8	-8.20	1.32	1.37
31	a	1428	A	N9-C4	-8.20	1.32	1.37
1	A	1003	A	N9-C4	-8.19	1.32	1.37
1	A	2040	A	C5-C4	-8.19	1.33	1.38
1	A	2471	G	C6-O6	-8.19	1.16	1.24
1	A	739	U	C2-N3	-8.19	1.32	1.37
2	B	76	A	C5-C6	-8.19	1.33	1.41
1	A	2055	U	N3-C4	-8.19	1.31	1.38
1	A	355	G	C8-N7	-8.18	1.26	1.30
1	A	669	C	P-O5'	8.18	1.68	1.59
1	A	2024	A	N3-C4	-8.18	1.29	1.34
1	A	195	C	N3-C4	-8.18	1.28	1.33
1	A	1025	A	N1-C2	-8.18	1.26	1.34
1	A	210	A	N9-C4	8.18	1.42	1.37
1	A	2863	G	C2-N3	8.18	1.39	1.32
1	A	900	G	C6-N1	-8.18	1.33	1.39
1	A	27	G	N1-C2	-8.17	1.31	1.37
1	A	580	C	N1-C6	-8.17	1.32	1.37
1	A	876	G	N7-C5	-8.17	1.34	1.39
1	A	2811	U	O3'-P	8.17	1.71	1.61
1	A	496	G	P-O5'	-8.16	1.51	1.59
1	A	505	U	C2-N3	-8.16	1.32	1.37
1	A	626	G	N9-C8	-8.16	1.32	1.37
1	A	1017	A	C5-C4	-8.16	1.33	1.38
1	A	1226	G	N7-C5	-8.16	1.34	1.39
1	A	2541	U	C2-O2	-8.16	1.15	1.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	865	A	C8-N7	-8.15	1.25	1.31
1	A	1029	C	C4'-C3'	8.15	1.62	1.53
1	A	1292	A	C5-C4	-8.15	1.33	1.38
1	A	2799	C	N3-C4	-8.15	1.28	1.33
1	A	1391	A	N3-C4	-8.15	1.29	1.34
1	A	508	C	N3-C4	-8.15	1.28	1.33
1	A	197	G	N7-C5	-8.15	1.34	1.39
1	A	730	A	N3-C4	-8.15	1.29	1.34
1	A	2868	G	C5-C6	-8.15	1.34	1.42
1	A	2744	G	N7-C5	-8.14	1.34	1.39
1	A	2758	G	N9-C4	-8.14	1.31	1.38
1	A	598	G	C5-C6	-8.14	1.34	1.42
1	A	729	G	C5-C4	-8.14	1.32	1.38
1	A	483	C	N3-C4	-8.14	1.28	1.33
1	A	608	C	C2-N3	-8.13	1.29	1.35
1	A	590	U	C2-N3	-8.13	1.32	1.37
1	A	2077	C	C2-N3	-8.13	1.29	1.35
1	A	1208	A	N3-C4	-8.13	1.29	1.34
1	A	2274	A	N7-C5	-8.13	1.34	1.39
1	A	1307	G	N7-C5	-8.13	1.34	1.39
1	A	1839	G	C5-C4	-8.12	1.32	1.38
1	A	1228	A	N7-C5	-8.12	1.34	1.39
1	A	1855	G	C8-N7	-8.12	1.26	1.30
1	A	23	G	N7-C5	-8.12	1.34	1.39
1	A	564	U	N3-C4	-8.12	1.31	1.38
1	A	583	A	C5-C4	-8.12	1.33	1.38
1	A	1267	A	N7-C5	-8.12	1.34	1.39
1	A	2894	C	O3'-P	8.11	1.70	1.61
1	A	1225	G	C2-N2	-8.11	1.26	1.34
1	A	648	G	C6-N1	-8.11	1.33	1.39
1	A	957	C	C2-O2	-8.11	1.17	1.24
1	A	1226	G	C5-C4	-8.11	1.32	1.38
1	A	2277	G	C2-N2	-8.10	1.26	1.34
1	A	1054	A	N9-C4	8.10	1.42	1.37
1	A	1356	G	C8-N7	-8.10	1.26	1.30
1	A	866	A	C8-N7	-8.10	1.25	1.31
1	A	365	A	N3-C4	-8.09	1.29	1.34
1	A	53	A	C5-C6	-8.09	1.33	1.41
1	A	2649	U	C2-N3	-8.09	1.32	1.37
1	A	616	G	N9-C4	-8.08	1.31	1.38
1	A	2486	A	C5-C4	8.08	1.44	1.38
1	A	195	C	C4-C5	-8.08	1.36	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	362	C	C2-N3	-8.07	1.29	1.35
1	A	2457	A	N7-C5	-8.07	1.34	1.39
1	A	255	G	N7-C5	-8.07	1.34	1.39
1	A	774	G	C6-N1	-8.06	1.33	1.39
1	A	632	U	N1-C2	-8.06	1.31	1.38
1	A	2551	G	C5-C6	-8.06	1.34	1.42
1	A	833	A	N7-C5	-8.05	1.34	1.39
1	A	2456	G	C6-N1	-8.05	1.33	1.39
1	A	1034	A	C8-N7	-8.05	1.25	1.31
1	A	2460	A	C5-C4	-8.05	1.33	1.38
1	A	1241	A	N9-C8	-8.05	1.31	1.37
1	A	1672	G	C6-N1	-8.04	1.33	1.39
1	A	707	G	N7-C5	8.04	1.44	1.39
1	A	908	A	C8-N7	-8.04	1.25	1.31
1	A	973	A	N7-C5	-8.04	1.34	1.39
1	A	1705	G	N1-C2	-8.04	1.31	1.37
1	A	2650	G	N7-C5	-8.04	1.34	1.39
1	A	381	G	N7-C5	-8.03	1.34	1.39
1	A	2059	G	C8-N7	-8.03	1.26	1.30
1	A	963	A	C5-C6	-8.03	1.33	1.41
1	A	2090	C	C2-N3	-8.03	1.29	1.35
1	A	491	C	C2-O2	-8.03	1.17	1.24
1	A	1024	A	C6-N6	-8.03	1.27	1.33
1	A	2027	G	C2-N2	-8.03	1.26	1.34
1	A	2265	G	C5-C4	-8.02	1.32	1.38
1	A	2648	G	C6-N1	-8.02	1.33	1.39
1	A	1712	A	N9-C8	-8.02	1.31	1.37
1	A	2027	G	N9-C4	-8.02	1.31	1.38
1	A	2759	G	N9-C4	-8.02	1.31	1.38
1	A	868	A	N3-C4	-8.01	1.30	1.34
1	A	1264	A	N7-C5	-8.01	1.34	1.39
1	A	2026	C	C2-N3	-8.01	1.29	1.35
1	A	534	G	O3'-P	8.00	1.70	1.61
1	A	578	G	C5-C4	-8.00	1.32	1.38
1	A	734	A	N7-C5	-8.00	1.34	1.39
1	A	1415	A	C5-C4	-8.00	1.33	1.38
1	A	1314	A	N9-C4	-7.99	1.33	1.37
1	A	2537	C	N3-C4	-7.99	1.28	1.33
1	A	191	A	N9-C4	-7.99	1.33	1.37
1	A	836	C	N3-C4	-7.99	1.28	1.33
1	A	1647	A	N7-C5	-7.99	1.34	1.39
1	A	519	G	N3-C4	-7.98	1.29	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	615	A	N3-C4	7.98	1.39	1.34
1	A	1813	A	N7-C5	-7.98	1.34	1.39
1	A	344	U	C2-N3	-7.98	1.32	1.37
1	A	840	C	N3-C4	-7.98	1.28	1.33
1	A	635	G	C6-N1	-7.98	1.33	1.39
1	A	1841	G	N1-C2	-7.98	1.31	1.37
1	A	265	A	N3-C4	-7.97	1.30	1.34
1	A	909	G	C6-N1	-7.97	1.33	1.39
1	A	378	C	C4-C5	-7.97	1.36	1.43
1	A	504	G	C5-C4	-7.97	1.32	1.38
1	A	963	A	N9-C4	-7.97	1.33	1.37
1	A	2295	A	C5-C4	-7.97	1.33	1.38
1	A	2759	G	C6-N1	-7.97	1.33	1.39
1	A	32	C	N3-C4	-7.96	1.28	1.33
1	A	1020	G	N9-C8	-7.96	1.32	1.37
1	A	986	G	N9-C4	-7.96	1.31	1.38
1	A	507	C	N3-C4	-7.96	1.28	1.33
1	A	65	A	C5-C6	-7.96	1.33	1.41
1	A	2802	A	N7-C5	-7.96	1.34	1.39
1	A	1028	G	N3-C4	7.96	1.41	1.35
1	A	2754	G	C6-N1	-7.95	1.33	1.39
1	A	1286	G	C8-N7	-7.95	1.26	1.30
1	A	824	A	N9-C4	-7.95	1.33	1.37
1	A	177	G	C8-N7	-7.95	1.26	1.30
1	A	741	G	C6-N1	-7.95	1.33	1.39
1	A	2482	G	N3-C4	-7.94	1.29	1.35
1	A	1744	A	N7-C5	-7.94	1.34	1.39
1	A	708	G	N9-C8	-7.94	1.32	1.37
1	A	513	G	N7-C5	-7.93	1.34	1.39
1	A	622	A	N3-C4	-7.93	1.30	1.34
1	A	2544	C	N3-C4	-7.93	1.28	1.33
1	A	1183	G	N7-C5	-7.93	1.34	1.39
1	A	2045	A	N3-C4	-7.93	1.30	1.34
1	A	510	U	C2-N3	-7.93	1.32	1.37
1	A	2521	G	N9-C8	-7.92	1.32	1.37
1	A	727	G	N3-C4	-7.92	1.29	1.35
1	A	573	A	N7-C5	-7.92	1.34	1.39
1	A	823	G	C6-N1	-7.92	1.34	1.39
1	A	1015	C	C2-N3	-7.92	1.29	1.35
1	A	1291	A	N9-C8	-7.92	1.31	1.37
1	A	2887	G	C6-N1	-7.92	1.34	1.39
1	A	627	C	N1-C6	-7.91	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	876	G	N1-C2	-7.91	1.31	1.37
1	A	1707	U	C2-N3	-7.91	1.32	1.37
1	A	882	C	C2-N3	-7.91	1.29	1.35
1	A	830	U	C2-N3	-7.90	1.32	1.37
1	A	497	U	C2-N3	-7.90	1.32	1.37
1	A	526	A	N7-C5	-7.89	1.34	1.39
1	A	864	A	N7-C5	-7.89	1.34	1.39
1	A	1017	A	C6-N1	-7.89	1.30	1.35
1	A	2072	C	N3-C4	-7.89	1.28	1.33
1	A	574	A	N7-C5	-7.89	1.34	1.39
1	A	265	A	N1-C2	-7.89	1.27	1.34
1	A	2606	C	C2-N3	-7.89	1.29	1.35
1	A	969	A	N9-C4	-7.89	1.33	1.37
1	A	2274	A	C5-C6	-7.88	1.33	1.41
1	A	2804	G	C5-C4	-7.88	1.32	1.38
1	A	2396	A	C8-N7	-7.88	1.26	1.31
1	A	1047	G	C8-N7	-7.88	1.26	1.30
1	A	1241	A	C8-N7	-7.88	1.26	1.31
1	A	2063	C	O3'-P	7.87	1.70	1.61
1	A	2857	A	C5-C6	-7.87	1.33	1.41
1	A	592	A	N9-C4	-7.86	1.33	1.37
1	A	1693	G	N7-C5	-7.86	1.34	1.39
1	A	2075	G	N7-C5	-7.86	1.34	1.39
1	A	2091	C	N3-C4	-7.86	1.28	1.33
1	A	1854	U	C2-N3	-7.86	1.32	1.37
1	A	2419	A	P-O5'	7.86	1.67	1.59
1	A	2023	C	N3-C4	-7.85	1.28	1.33
1	A	555	C	N1-C6	-7.85	1.32	1.37
1	A	2603	G	N7-C5	-7.85	1.34	1.39
1	A	1045	A	C6-N1	-7.85	1.30	1.35
1	A	1195	A	N3-C4	-7.85	1.30	1.34
1	A	584	G	C2-N3	7.85	1.39	1.32
1	A	882	C	N1-C6	-7.85	1.32	1.37
1	A	885	C	N3-C4	-7.85	1.28	1.33
1	A	1357	G	C6-N1	-7.85	1.34	1.39
1	A	265	A	C2-N3	-7.84	1.26	1.33
1	A	2888	A	N9-C4	-7.84	1.33	1.37
1	A	986	G	N1-C2	-7.84	1.31	1.37
1	A	2722	U	C2-N3	-7.84	1.32	1.37
1	A	203	U	C2-N3	-7.84	1.32	1.37
1	A	513	G	C5-C4	-7.84	1.32	1.38
1	A	859	C	N1-C2	7.84	1.48	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1229	G	C6-N1	-7.84	1.34	1.39
1	A	518	A	C5-C4	-7.83	1.33	1.38
1	A	595	G	N9-C8	7.83	1.43	1.37
1	A	601	G	C8-N7	-7.83	1.26	1.30
1	A	362	C	N1-C2	-7.83	1.32	1.40
1	A	581	A	C5-C4	-7.83	1.33	1.38
1	A	616	G	C5-C4	-7.83	1.32	1.38
1	A	2811	U	C3'-O3'	7.83	1.53	1.42
1	A	65	A	N7-C5	-7.83	1.34	1.39
1	A	195	C	N1-C6	-7.83	1.32	1.37
1	A	578	G	N3-C4	-7.83	1.29	1.35
1	A	1283	G	C5-C6	-7.83	1.34	1.42
1	A	579	U	C2-N3	-7.82	1.32	1.37
1	A	2006	C	N3-C4	-7.82	1.28	1.33
1	A	1301	U	C4-C5	-7.82	1.36	1.43
1	A	2036	G	N3-C4	-7.82	1.29	1.35
1	A	1048	U	C4-C5	-7.82	1.36	1.43
1	A	1374	G	C6-O6	-7.82	1.17	1.24
1	A	1298	G	N9-C8	-7.82	1.32	1.37
1	A	2869	G	C8-N7	-7.82	1.26	1.30
1	A	2027	G	C6-N1	-7.81	1.34	1.39
1	A	1999	G	N7-C5	-7.81	1.34	1.39
1	A	2791	A	N9-C4	-7.81	1.33	1.37
1	A	1654	A	N7-C5	-7.80	1.34	1.39
1	A	1321	A	C5-C6	7.80	1.48	1.41
1	A	2570	G	N7-C5	-7.80	1.34	1.39
1	A	707	G	C2-N3	-7.80	1.26	1.32
1	A	243	U	C2-N3	-7.80	1.32	1.37
1	A	984	G	N9-C4	-7.80	1.31	1.38
1	A	1286	G	N7-C5	-7.80	1.34	1.39
1	A	1040	A	N9-C4	-7.79	1.33	1.37
1	A	1855	G	N9-C8	-7.79	1.32	1.37
1	A	583	A	N9-C4	-7.79	1.33	1.37
1	A	2300	A	N9-C4	-7.79	1.33	1.37
1	A	22	C	N1-C6	-7.79	1.32	1.37
1	A	1281	U	C2-N3	-7.79	1.32	1.37
1	A	512	A	N3-C4	-7.78	1.30	1.34
1	A	604	G	C6-N1	-7.78	1.34	1.39
1	A	843	G	C6-N1	-7.78	1.34	1.39
1	A	1850	G	N1-C2	-7.78	1.31	1.37
1	A	2858	G	C5-C4	-7.78	1.32	1.38
1	A	1034	A	C6-N1	-7.78	1.30	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	668	C	C2-N3	-7.78	1.29	1.35
1	A	17	G	N9-C4	-7.77	1.31	1.38
1	A	250	G	C5-C4	-7.77	1.32	1.38
1	A	1254	C	C4-C5	-7.77	1.36	1.43
1	A	595	G	N9-C4	7.77	1.44	1.38
1	A	2644	C	C2-N3	-7.77	1.29	1.35
1	A	2750	C	N3-C4	-7.77	1.28	1.33
1	A	874	A	C6-N1	-7.77	1.30	1.35
1	A	785	C	N3-C4	-7.77	1.28	1.33
1	A	38	A	N7-C5	-7.76	1.34	1.39
1	A	499	A	C5-C4	-7.76	1.33	1.38
1	A	2474	G	N3-C4	-7.76	1.30	1.35
1	A	2645	G	C8-N7	-7.76	1.26	1.30
1	A	428	G	N9-C4	-7.76	1.31	1.38
1	A	2475	A	N7-C5	-7.76	1.34	1.39
1	A	715	A	N7-C5	-7.76	1.34	1.39
1	A	871	U	C2-N3	-7.76	1.32	1.37
1	A	16	G	C6-N1	-7.75	1.34	1.39
1	A	68	A	N7-C5	-7.75	1.34	1.39
1	A	480	U	N3-C4	-7.75	1.31	1.38
1	A	604	G	N7-C5	-7.75	1.34	1.39
1	A	2724	G	C5-C4	-7.75	1.32	1.38
1	A	2488	C	N3-C4	-7.75	1.28	1.33
1	A	1004	A	C6-N6	-7.75	1.27	1.33
1	A	1654	A	N9-C4	-7.75	1.33	1.37
1	A	2080	G	C6-O6	-7.74	1.17	1.24
1	A	2622	G	C5-C4	-7.74	1.32	1.38
1	A	354	A	N7-C5	-7.74	1.34	1.39
1	A	1806	U	C2-N3	-7.74	1.32	1.37
1	A	488	G	O3'-P	7.74	1.70	1.61
1	A	847	A	C5-C4	-7.74	1.33	1.38
1	A	1234	G	N1-C2	-7.74	1.31	1.37
1	A	26	G	C6-N1	-7.74	1.34	1.39
1	A	727	G	N7-C5	-7.73	1.34	1.39
1	A	223	G	N1-C2	-7.73	1.31	1.37
1	A	512	A	C5-C4	-7.73	1.33	1.38
1	A	1263	A	N3-C4	-7.73	1.30	1.34
1	A	2076	A	N7-C5	-7.73	1.34	1.39
1	A	2888	A	N7-C5	-7.73	1.34	1.39
1	A	845	A	N9-C4	-7.72	1.33	1.37
1	A	2029	G	C2-N3	-7.72	1.26	1.32
1	A	2088	G	N7-C5	-7.72	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2615	G	N7-C5	-7.72	1.34	1.39
1	A	244	A	N7-C5	-7.72	1.34	1.39
1	A	504	G	N9-C8	-7.72	1.32	1.37
1	A	1029	C	N3-C4	-7.72	1.28	1.33
1	A	1302	G	C5-C6	-7.72	1.34	1.42
1	A	492	G	C8-N7	-7.72	1.26	1.30
1	A	488	G	N9-C4	-7.72	1.31	1.38
1	A	1356	G	C6-N1	-7.72	1.34	1.39
1	A	869	G	N9-C4	-7.72	1.31	1.38
1	A	2668	A	N7-C5	-7.72	1.34	1.39
1	A	203	U	N3-C4	-7.71	1.31	1.38
1	A	1065	A	N3-C4	-7.71	1.30	1.34
1	A	514	G	C6-N1	-7.71	1.34	1.39
1	A	877	G	N9-C8	-7.71	1.32	1.37
1	A	2104	A	N7-C5	-7.71	1.34	1.39
1	A	2471	G	C6-N1	-7.71	1.34	1.39
1	A	1818	A	N7-C5	-7.71	1.34	1.39
1	A	2100	C	N3-C4	-7.71	1.28	1.33
1	A	421	C	N1-C6	-7.70	1.32	1.37
1	A	1014	U	C4'-C3'	-7.70	1.44	1.53
1	A	2667	G	C6-O6	-7.70	1.17	1.24
1	A	2857	A	N9-C8	-7.70	1.31	1.37
1	A	2647	C	C5'-C4'	7.70	1.60	1.51
1	A	2846	A	N7-C5	-7.70	1.34	1.39
1	A	1208	A	C5-C4	-7.70	1.33	1.38
1	A	843	G	C5-C4	-7.69	1.32	1.38
1	A	1392	G	C6-N1	-7.69	1.34	1.39
1	A	1251	A	C6-N1	-7.69	1.30	1.35
1	A	1235	C	N3-C4	-7.68	1.28	1.33
1	A	527	G	C5-C6	-7.68	1.34	1.42
1	A	808	G	C5-C4	-7.68	1.32	1.38
1	A	650	U	N1-C2	7.68	1.45	1.38
1	A	2037	G	N9-C8	-7.68	1.32	1.37
1	A	248	G	C6-N1	-7.67	1.34	1.39
1	A	619	U	C2-N3	-7.67	1.32	1.37
1	A	1811	A	N9-C4	-7.67	1.33	1.37
1	A	23	G	C5-C6	-7.67	1.34	1.42
1	A	778	G	N1-C2	-7.67	1.31	1.37
1	A	1254	C	N1-C6	-7.67	1.32	1.37
1	A	1307	G	N1-C2	-7.67	1.31	1.37
1	A	490	C	C4-N4	-7.67	1.27	1.33
1	A	1694	A	C5-C6	-7.67	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1800	A	N3-C4	-7.66	1.30	1.34
1	A	1057	A	N9-C4	-7.66	1.33	1.37
1	A	2510	C	N3-C4	-7.66	1.28	1.33
1	A	832	C	N3-C4	-7.66	1.28	1.33
1	A	2744	G	C8-N7	-7.66	1.26	1.30
1	A	265	A	C6-N6	-7.65	1.27	1.33
1	A	883	C	P-O5'	-7.65	1.52	1.59
1	A	1027	A	C6-N6	-7.65	1.27	1.33
1	A	2064	A	C5-C4	-7.65	1.33	1.38
1	A	573	A	C5-C4	-7.65	1.33	1.38
1	A	1057	A	C5-C4	-7.65	1.33	1.38
1	A	471	G	C2-N3	-7.65	1.26	1.32
1	A	488	G	C3'-O3'	7.65	1.52	1.42
1	A	1702	C	N1-C6	-7.65	1.32	1.37
1	A	2843	A	N7-C5	-7.64	1.34	1.39
1	A	816	G	N7-C5	-7.64	1.34	1.39
1	A	1617	A	N7-C5	-7.64	1.34	1.39
1	A	668	C	C3'-O3'	7.64	1.52	1.42
1	A	2487	U	N3-C4	-7.63	1.31	1.38
1	A	1036	C	N1-C2	-7.63	1.32	1.40
1	A	221	G	N7-C5	-7.62	1.34	1.39
1	A	18	C	N3-C4	-7.62	1.28	1.33
1	A	425	G	N1-C2	-7.62	1.31	1.37
1	A	1261	G	C8-N7	-7.62	1.26	1.30
1	A	468	A	N9-C4	-7.62	1.33	1.37
1	A	635	G	N3-C4	-7.62	1.30	1.35
1	A	779	A	N7-C5	-7.62	1.34	1.39
1	A	2715	G	N7-C5	-7.62	1.34	1.39
1	A	2865	G	N7-C5	-7.62	1.34	1.39
1	A	23	G	C6-N1	-7.62	1.34	1.39
1	A	1852	G	N1-C2	-7.62	1.31	1.37
1	A	2295	A	N7-C5	-7.62	1.34	1.39
1	A	27	G	C6-N1	-7.61	1.34	1.39
1	A	856	U	C2-N3	-7.61	1.32	1.37
1	A	2050	A	N9-C4	-7.61	1.33	1.37
1	A	1294	G	C8-N7	-7.61	1.26	1.30
1	A	2045	A	C5-C4	-7.61	1.33	1.38
1	A	2064	A	C6-N6	-7.61	1.27	1.33
1	A	2653	C	N1-C2	7.61	1.47	1.40
1	A	1324	A	N9-C8	-7.61	1.31	1.37
1	A	200	A	N9-C4	-7.61	1.33	1.37
1	A	628	G	N1-C2	-7.61	1.31	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1816	A	N7-C5	-7.61	1.34	1.39
1	A	2239	A	N9-C4	-7.61	1.33	1.37
1	A	2031	G	C2-N2	-7.60	1.26	1.34
1	A	2845	G	C5-C6	-7.60	1.34	1.42
1	A	73	A	N7-C5	-7.59	1.34	1.39
1	A	1063	U	C4-O4	-7.59	1.17	1.23
1	A	552	A	N9-C4	-7.59	1.33	1.37
1	A	1274	G	C6-N1	-7.59	1.34	1.39
1	A	1719	C	N3-C4	-7.59	1.28	1.33
1	A	2669	G	N9-C4	-7.59	1.31	1.38
1	A	496	G	C5-C6	-7.59	1.34	1.42
1	A	880	A	N7-C5	-7.59	1.34	1.39
1	A	2029	G	C5-C4	-7.59	1.33	1.38
1	A	504	G	N1-C2	-7.58	1.31	1.37
1	A	29	U	C2-N3	-7.58	1.32	1.37
1	A	2007	G	N1-C2	-7.58	1.31	1.37
1	A	635	G	N7-C5	-7.58	1.34	1.39
1	A	2305	A	N9-C4	-7.58	1.33	1.37
1	A	2646	U	C3'-O3'	7.58	1.52	1.42
1	A	633	A	N9-C8	-7.57	1.31	1.37
1	A	2055	U	C2-N3	-7.57	1.32	1.37
1	A	2895	G	N9-C4	-7.57	1.31	1.38
1	A	825	G	C6-N1	-7.57	1.34	1.39
1	A	538	G	C6-N1	-7.57	1.34	1.39
1	A	2081	A	C5-C6	7.57	1.47	1.41
1	A	2850	G	C6-N1	-7.57	1.34	1.39
1	A	255	G	C5-C4	-7.56	1.33	1.38
1	A	1648	C	N3-C4	-7.56	1.28	1.33
1	A	1262	U	N1-C2	-7.56	1.31	1.38
1	A	95	A	C5-C6	-7.55	1.34	1.41
1	A	1022	G	O3'-P	7.55	1.70	1.61
1	A	565	G	N7-C5	-7.55	1.34	1.39
1	A	565	G	C2-N3	-7.55	1.26	1.32
1	A	998	G	N1-C2	-7.55	1.31	1.37
1	A	197	G	C8-N7	-7.55	1.26	1.30
1	A	17	G	C8-N7	-7.55	1.26	1.30
1	A	2749	G	N7-C5	-7.54	1.34	1.39
1	A	516	A	C6-N1	-7.54	1.30	1.35
1	A	1254	C	N3-C4	-7.54	1.28	1.33
1	A	488	G	N3-C4	-7.54	1.30	1.35
1	A	1073	A	C5-C6	-7.54	1.34	1.41
1	A	2487	U	C2-N3	-7.54	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	604	G	C8-N7	-7.54	1.26	1.30
1	A	1205	U	N3-C4	-7.54	1.31	1.38
1	A	2470	C	C2-N3	-7.54	1.29	1.35
1	A	991	A	C5-C4	-7.54	1.33	1.38
1	A	2604	A	C5-C6	7.54	1.47	1.41
1	A	955	A	C5-C4	-7.53	1.33	1.38
1	A	2577	G	N7-C5	-7.53	1.34	1.39
1	A	903	G	N1-C2	-7.53	1.31	1.37
1	A	197	G	C5-C4	-7.53	1.33	1.38
1	A	710	C	N3-C4	-7.53	1.28	1.33
1	A	2868	G	O3'-P	7.53	1.70	1.61
1	A	1022	G	C8-N7	-7.52	1.26	1.30
1	A	608	C	C4'-C3'	-7.52	1.44	1.53
1	A	1705	G	C5-C6	-7.52	1.34	1.42
1	A	2297	G	N7-C5	-7.52	1.34	1.39
1	A	2391	C	C4-C5	-7.52	1.36	1.43
1	A	2867	U	C2-N3	-7.52	1.32	1.37
1	A	1204	G	N3-C4	-7.52	1.30	1.35
1	A	774	G	C8-N7	-7.52	1.26	1.30
1	A	849	A	C5-C4	-7.52	1.33	1.38
1	A	2648	G	N1-C2	-7.52	1.31	1.37
1	A	827	A	N9-C4	-7.52	1.33	1.37
1	A	804	G	C6-N1	-7.51	1.34	1.39
1	A	604	G	N1-C2	-7.51	1.31	1.37
1	A	850	G	N9-C4	-7.51	1.31	1.38
1	A	1286	G	C1'-N9	-7.51	1.36	1.46
1	A	2023	C	O3'-P	7.51	1.70	1.61
1	A	195	C	C2-N3	-7.51	1.29	1.35
1	A	625	G	C5-C4	-7.51	1.33	1.38
1	A	2635	G	C5-C4	-7.51	1.33	1.38
1	A	867	U	N1-C2	-7.51	1.31	1.38
1	A	2625	A	N3-C4	-7.51	1.30	1.34
1	A	2368	G	N9-C4	-7.51	1.31	1.38
1	A	2529	G	N9-C8	-7.50	1.32	1.37
1	A	381	G	C6-N1	-7.50	1.34	1.39
1	A	825	G	N1-C2	-7.50	1.31	1.37
1	A	1175	G	N7-C5	-7.50	1.34	1.39
1	A	1251	A	N7-C5	-7.50	1.34	1.39
1	A	602	G	C6-N1	-7.50	1.34	1.39
1	A	608	C	C5-C6	-7.50	1.28	1.34
1	A	816	G	N1-C2	-7.50	1.31	1.37
1	A	2652	G	N1-C2	-7.50	1.31	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	964	U	C2-N3	-7.50	1.32	1.37
1	A	1066	G	N1-C2	-7.50	1.31	1.37
1	A	1295	C	C4-N4	-7.50	1.27	1.33
1	A	856	U	C2-O2	-7.49	1.15	1.22
1	A	954	A	N9-C8	-7.49	1.31	1.37
1	A	1718	G	N1-C2	-7.49	1.31	1.37
1	A	993	C	N1-C6	-7.49	1.32	1.37
1	A	999	U	C4-O4	-7.49	1.17	1.23
1	A	1711	G	N7-C5	-7.49	1.34	1.39
1	A	1273	G	N9-C8	-7.49	1.32	1.37
1	A	1305	U	N3-C4	-7.49	1.31	1.38
1	A	241	C	N3-C4	-7.48	1.28	1.33
1	A	710	C	N1-C6	-7.48	1.32	1.37
1	A	996	G	C6-N1	-7.48	1.34	1.39
1	A	509	G	C5-C4	-7.48	1.33	1.38
1	A	844	G	C6-N1	-7.48	1.34	1.39
1	A	1711	G	N9-C8	-7.48	1.32	1.37
1	A	2530	A	N7-C5	-7.48	1.34	1.39
1	A	257	G	C5-C4	-7.48	1.33	1.38
1	A	673	G	C6-N1	-7.48	1.34	1.39
1	A	1200	A	C5-C4	-7.48	1.33	1.38
1	A	1232	G	N1-C2	-7.48	1.31	1.37
1	A	1347	G	C5-C4	-7.48	1.33	1.38
1	A	2097	G	C6-N1	-7.48	1.34	1.39
1	A	351	G	N7-C5	-7.47	1.34	1.39
1	A	806	A	C6-N1	-7.47	1.30	1.35
1	A	1829	A	N7-C5	-7.47	1.34	1.39
1	A	2880	A	N9-C4	-7.47	1.33	1.37
1	A	23	G	C5-C4	-7.47	1.33	1.38
1	A	2736	G	C6-N1	-7.47	1.34	1.39
1	A	2069	A	N9-C4	-7.47	1.33	1.37
1	A	2442	G	C2-N3	7.47	1.38	1.32
1	A	695	C	N3-C4	-7.47	1.28	1.33
1	A	2094	G	N1-C2	-7.47	1.31	1.37
1	A	2615	G	C5-C4	-7.47	1.33	1.38
1	A	19	G	N9-C4	-7.47	1.31	1.38
1	A	590	U	N1-C2	-7.47	1.31	1.38
1	A	2525	C	C4-N4	-7.47	1.27	1.33
1	A	115	C	N3-C4	-7.46	1.28	1.33
1	A	884	U	N1-C6	-7.46	1.31	1.38
1	A	2075	G	C6-N1	-7.46	1.34	1.39
1	A	200	A	C5-C6	-7.46	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	651	A	N9-C8	-7.46	1.31	1.37
1	A	1037	A	C6-N1	-7.46	1.30	1.35
1	A	1826	G	N7-C5	-7.46	1.34	1.39
1	A	724	C	C4-C5	-7.46	1.36	1.43
1	A	1849	G	C6-N1	-7.46	1.34	1.39
1	A	31	C	N1-C6	-7.45	1.32	1.37
1	A	1201	G	N3-C4	-7.45	1.30	1.35
1	A	2648	G	C5-C4	-7.45	1.33	1.38
1	A	817	G	C5-C4	-7.45	1.33	1.38
1	A	881	G	C5-C4	-7.45	1.33	1.38
1	A	1395	G	N9-C4	-7.45	1.31	1.38
1	A	2042	A	N9-C4	-7.45	1.33	1.37
1	A	2701	G	C2-N3	-7.45	1.26	1.32
1	A	193	A	C5-C4	-7.45	1.33	1.38
1	A	994	A	C2-N3	-7.45	1.26	1.33
1	A	1181	G	C5-C6	-7.45	1.34	1.42
1	A	2620	U	C2-N3	-7.44	1.32	1.37
1	A	1175	G	C6-N1	-7.44	1.34	1.39
1	A	2634	G	C6-N1	-7.44	1.34	1.39
1	A	2805	A	N7-C5	-7.44	1.34	1.39
1	A	371	U	C2-N3	-7.44	1.32	1.37
1	A	1415	A	C6-N1	-7.44	1.30	1.35
1	A	745	G	C5-C4	-7.44	1.33	1.38
1	A	2473	G	N9-C8	7.44	1.43	1.37
1	A	71	A	C5-C6	-7.44	1.34	1.41
1	A	1236	G	C2-N3	-7.44	1.26	1.32
1	A	1368	C	C2-O2	-7.44	1.17	1.24
1	A	2665	G	C5-C4	-7.44	1.33	1.38
1	A	635	G	C2-N3	-7.43	1.26	1.32
1	A	995	U	C2-N3	-7.43	1.32	1.37
1	A	1849	G	N9-C8	-7.43	1.32	1.37
1	A	2669	G	N3-C4	-7.43	1.30	1.35
1	A	1273	G	C5-C4	-7.43	1.33	1.38
1	A	2041	A	N3-C4	-7.43	1.30	1.34
1	A	2270	U	C2-N3	-7.43	1.32	1.37
1	A	201	C	C2-N3	-7.43	1.29	1.35
1	A	2102	U	C2-N3	-7.43	1.32	1.37
1	A	2615	G	C6-N1	-7.43	1.34	1.39
1	A	2307	G	C5-C4	-7.42	1.33	1.38
1	A	300	G	C2-N3	-7.42	1.26	1.32
1	A	2595	C	N3-C4	-7.42	1.28	1.33
1	A	1704	C	C2-O2	-7.41	1.17	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1811	A	C5-C4	-7.41	1.33	1.38
1	A	1050	C	N1-C2	7.41	1.47	1.40
1	A	2469	C	N3-C4	-7.41	1.28	1.33
1	A	2550	G	N9-C4	7.41	1.43	1.38
1	A	2706	A	N7-C5	-7.41	1.34	1.39
1	A	2283	G	C6-N1	-7.41	1.34	1.39
1	A	562	C	C4-C5	-7.41	1.37	1.43
1	A	2477	A	C6-N1	-7.41	1.30	1.35
1	A	500	A	N7-C5	-7.40	1.34	1.39
1	A	2278	G	C6-N1	-7.40	1.34	1.39
1	A	208	G	N7-C5	-7.40	1.34	1.39
1	A	883	C	C5-C6	-7.40	1.28	1.34
1	A	985	A	C2-N3	-7.40	1.26	1.33
1	A	193	A	N7-C5	-7.40	1.34	1.39
1	A	2895	G	C5'-C4'	7.39	1.60	1.51
1	A	1261	G	C5-C4	-7.39	1.33	1.38
1	A	70	G	C5-C4	-7.39	1.33	1.38
1	A	202	A	C8-N7	-7.39	1.26	1.31
1	A	2514	G	N3-C4	-7.39	1.30	1.35
1	A	530	C	C4-C5	-7.38	1.37	1.43
1	A	965	G	C5-C4	-7.38	1.33	1.38
1	A	2735	G	C6-N1	-7.38	1.34	1.39
1	A	1721	A	N7-C5	-7.38	1.34	1.39
1	A	558	A	C5-C4	-7.38	1.33	1.38
1	A	2842	G	C5-C4	-7.38	1.33	1.38
1	A	974	U	C2-N3	-7.37	1.32	1.37
1	A	1019	A	N3-C4	-7.37	1.30	1.34
1	A	2073	G	C5-C4	-7.37	1.33	1.38
1	A	22	C	C5-C6	-7.37	1.28	1.34
1	A	877	G	N1-C2	-7.37	1.31	1.37
1	A	578	G	C6-N1	-7.36	1.34	1.39
1	A	815	G	N1-C2	-7.36	1.31	1.37
1	A	2309	G	N3-C4	-7.36	1.30	1.35
1	A	551	G	N7-C5	-7.36	1.34	1.39
1	A	2749	G	C8-N7	-7.36	1.26	1.30
1	A	2841	A	N9-C4	-7.36	1.33	1.37
1	A	206	U	C2-N3	-7.36	1.32	1.37
1	A	2379	A	N7-C5	-7.36	1.34	1.39
1	A	850	G	C2-N3	-7.36	1.26	1.32
1	A	1043	U	N1-C2	7.36	1.45	1.38
1	A	1176	U	C2-N3	-7.36	1.32	1.37
1	A	2455	G	C5-C4	-7.35	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1830	A	N7-C5	-7.35	1.34	1.39
1	A	1850	G	C5-C4	-7.35	1.33	1.38
1	A	602	G	C5-C4	-7.35	1.33	1.38
1	A	831	C	N1-C6	-7.35	1.32	1.37
1	A	1712	A	C5-C4	-7.35	1.33	1.38
1	A	2300	A	N7-C5	-7.35	1.34	1.39
1	A	45	G	N7-C5	-7.35	1.34	1.39
1	A	1033	G	N1-C2	-7.35	1.31	1.37
1	A	678	A	N9-C4	-7.34	1.33	1.37
1	A	263	G	N3-C4	-7.34	1.30	1.35
1	A	715	A	C6-N1	-7.34	1.30	1.35
1	A	2030	A	C5-C4	-7.34	1.33	1.38
1	A	1182	G	C5-C4	-7.34	1.33	1.38
1	A	1980	A	C5-C6	-7.34	1.34	1.41
1	A	707	G	N1-C2	-7.34	1.31	1.37
1	A	2646	U	O3'-P	7.34	1.70	1.61
1	A	1363	U	C2-N3	-7.33	1.32	1.37
1	A	1839	G	C6-N1	-7.33	1.34	1.39
1	A	2647	C	C5-C6	-7.33	1.28	1.34
1	A	2065	G	C5'-C4'	7.33	1.60	1.51
1	A	2858	G	N3-C4	-7.33	1.30	1.35
1	A	744	A	N7-C5	-7.32	1.34	1.39
1	A	1697	G	O3'-P	7.32	1.70	1.61
1	A	2665	G	C2-N3	-7.32	1.26	1.32
1	A	583	A	N1-C2	-7.32	1.27	1.34
1	A	2269	G	C8-N7	-7.32	1.26	1.30
1	A	708	G	N7-C5	-7.32	1.34	1.39
1	A	2740	A	C5-C6	-7.32	1.34	1.41
1	A	2273	G	C6-O6	-7.32	1.17	1.24
1	A	1049	C	P-O5'	7.32	1.67	1.59
1	A	636	A	N7-C5	-7.32	1.34	1.39
1	A	1814	A	N7-C5	-7.32	1.34	1.39
1	A	1845	U	C2-N3	-7.32	1.32	1.37
1	A	2605	G	C5-C4	-7.32	1.33	1.38
1	A	122	G	C5-C4	-7.31	1.33	1.38
1	A	427	A	C5-C4	-7.31	1.33	1.38
1	A	2577	G	N9-C4	-7.31	1.32	1.38
1	A	628	G	C8-N7	-7.31	1.26	1.30
1	A	2525	C	C5-C6	-7.31	1.28	1.34
1	A	495	A	N9-C4	-7.31	1.33	1.37
1	A	736	C	C2-N3	-7.31	1.29	1.35
1	A	1288	G	N9-C8	-7.31	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1417	G	N7-C5	-7.31	1.34	1.39
1	A	2434	A	N9-C4	-7.31	1.33	1.37
1	A	902	A	C6-N1	-7.31	1.30	1.35
1	A	355	G	C6-N1	-7.30	1.34	1.39
1	A	493	A	C5-C4	-7.30	1.33	1.38
1	A	1175	G	C8-N7	-7.30	1.26	1.30
1	A	1797	G	N3-C4	-7.30	1.30	1.35
1	A	2013	G	C5-C4	-7.30	1.33	1.38
1	A	667	G	N9-C8	-7.30	1.32	1.37
1	A	2273	G	N7-C5	-7.30	1.34	1.39
1	A	2486	A	N9-C4	7.30	1.42	1.37
1	A	2070	C	N3-C4	-7.30	1.28	1.33
1	A	2080	G	N1-C2	-7.30	1.31	1.37
1	A	16	G	N1-C2	-7.30	1.31	1.37
1	A	272	C	C2-O2	-7.30	1.17	1.24
1	A	578	G	N7-C5	-7.30	1.34	1.39
1	A	2846	A	C5-C4	-7.30	1.33	1.38
1	A	523	A	C5-C4	-7.29	1.33	1.38
1	A	1047	G	N1-C2	-7.29	1.31	1.37
1	A	1785	G	C5-C4	-7.29	1.33	1.38
1	A	251	G	N9-C4	-7.29	1.32	1.38
1	A	1831	A	N7-C5	-7.29	1.34	1.39
1	A	2607	U	C2-N3	-7.29	1.32	1.37
1	A	615	A	C5-C6	7.29	1.47	1.41
1	A	32	C	C2-N3	-7.29	1.29	1.35
1	A	548	A	N3-C4	-7.29	1.30	1.34
1	A	660	A	N9-C4	-7.29	1.33	1.37
1	A	841	C	N1-C6	-7.29	1.32	1.37
1	A	1290	G	N1-C2	-7.28	1.31	1.37
1	A	2525	C	C2-N3	-7.28	1.29	1.35
1	A	894	A	C6-N1	-7.28	1.30	1.35
1	A	1979	A	C5-C4	-7.28	1.33	1.38
1	A	2019	G	C6-N1	-7.28	1.34	1.39
1	A	2273	G	C6-N1	-7.28	1.34	1.39
1	A	951	G	C6-N1	-7.28	1.34	1.39
1	A	854	G	C6-N1	-7.28	1.34	1.39
1	A	1410	A	N9-C4	-7.28	1.33	1.37
1	A	1718	G	C6-N1	-7.28	1.34	1.39
1	A	2397	G	C5-C4	-7.28	1.33	1.38
1	A	2521	G	C5-C4	-7.27	1.33	1.38
1	A	1649	C	N1-C6	-7.27	1.32	1.37
1	A	1030	C	N1-C6	-7.27	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2736	G	N1-C2	-7.27	1.31	1.37
1	A	727	G	C5-C4	-7.26	1.33	1.38
1	A	850	G	N9-C8	-7.26	1.32	1.37
1	A	1306	A	N7-C5	-7.26	1.34	1.39
1	A	1599	G	C2-N3	-7.26	1.26	1.32
1	A	2759	G	C2-N3	-7.26	1.26	1.32
1	A	543	G	C6-N1	-7.26	1.34	1.39
1	A	2485	U	C2-N3	-7.26	1.32	1.37
1	A	381	G	N1-C2	-7.26	1.31	1.37
1	A	2036	G	C2-N2	-7.25	1.27	1.34
1	A	583	A	C6-N1	-7.25	1.30	1.35
1	A	832	C	N1-C6	-7.25	1.32	1.37
1	A	229	A	C8-N7	-7.25	1.26	1.31
1	A	727	G	N1-C2	-7.25	1.31	1.37
1	A	1378	U	N3-C4	-7.25	1.31	1.38
1	A	122	G	C6-N1	-7.24	1.34	1.39
1	A	565	G	C8-N7	-7.24	1.26	1.30
1	A	875	G	N7-C5	-7.24	1.34	1.39
1	A	722	A	C6-N1	-7.24	1.30	1.35
1	A	2024	A	C5-C6	-7.24	1.34	1.41
1	A	2630	G	C5-C4	-7.24	1.33	1.38
1	A	2385	A	C6-N1	-7.24	1.30	1.35
1	A	253	G	N7-C5	-7.23	1.34	1.39
1	A	1230	G	P-O5'	-7.23	1.52	1.59
1	A	1650	G	C5-C4	-7.23	1.33	1.38
1	A	2892	G	C6-N1	-7.23	1.34	1.39
1	A	850	G	C2-N2	-7.23	1.27	1.34
1	A	1352	C	N1-C2	-7.23	1.32	1.40
1	A	2087	A	N7-C5	-7.23	1.34	1.39
1	A	2606	C	N3-C4	-7.23	1.28	1.33
1	A	1175	G	N3-C4	-7.22	1.30	1.35
1	A	716	C	N3-C4	-7.22	1.28	1.33
1	A	2064	A	C3'-O3'	7.22	1.52	1.42
1	A	806	A	N7-C5	-7.22	1.34	1.39
1	A	638	U	C2-N3	-7.22	1.32	1.37
1	A	1024	A	N9-C4	7.22	1.42	1.37
1	A	2029	G	N9-C8	-7.22	1.32	1.37
1	A	2529	G	C5-C4	-7.22	1.33	1.38
1	A	2757	U	N1-C2	-7.22	1.32	1.38
1	A	692	G	N7-C5	-7.22	1.34	1.39
1	A	1393	C	N3-C4	-7.22	1.28	1.33
1	A	1037	A	N9-C4	-7.22	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2303	G	C5-C4	-7.22	1.33	1.38
1	A	2839	A	N7-C5	-7.22	1.34	1.39
1	A	2741	G	N3-C4	-7.21	1.30	1.35
1	A	2668	A	C6-N1	-7.21	1.30	1.35
1	A	1228	A	N3-C4	-7.21	1.30	1.34
1	A	2104	A	C5-C4	-7.21	1.33	1.38
1	A	393	G	C8-N7	-7.20	1.26	1.30
1	A	824	A	N7-C5	-7.20	1.34	1.39
1	A	1787	A	N7-C5	-7.20	1.34	1.39
1	A	2443	C	N1-C2	7.20	1.47	1.40
1	A	2446	U	C2-N3	-7.20	1.32	1.37
1	A	1395	G	C5-C6	-7.20	1.35	1.42
1	A	1723	A	N7-C5	-7.20	1.34	1.39
1	A	1270	U	N3-C4	-7.20	1.31	1.38
1	A	2275	C	N3-C4	-7.20	1.28	1.33
1	A	964	U	N3-C4	-7.20	1.31	1.38
1	A	1667	G	C6-N1	-7.20	1.34	1.39
1	A	1793	C	N1-C6	-7.20	1.32	1.37
1	A	2055	U	C4-O4	-7.20	1.17	1.23
1	A	2851	G	N7-C5	-7.20	1.34	1.39
1	A	2647	C	P-O5'	7.20	1.67	1.59
1	A	533	C	N1-C6	7.19	1.41	1.37
1	A	1298	G	N1-C2	-7.19	1.31	1.37
1	A	820	G	N9-C8	-7.19	1.32	1.37
1	A	1698	A	C5'-C4'	7.19	1.59	1.51
1	A	1799	G	N1-C2	-7.19	1.31	1.37
1	A	1695	G	C2-N3	-7.19	1.26	1.32
1	A	563	G	C6-O6	-7.19	1.17	1.24
1	A	2277	G	C8-N7	-7.18	1.26	1.30
1	A	2525	C	C4'-C3'	-7.18	1.45	1.53
1	A	2669	G	C5-C4	-7.18	1.33	1.38
1	A	1785	G	N7-C5	-7.18	1.34	1.39
1	A	1430	A	N9-C4	-7.18	1.33	1.37
1	A	1782	A	N7-C5	-7.18	1.34	1.39
1	A	1008	C	C4-C5	-7.18	1.37	1.43
1	A	2278	G	N7-C5	-7.18	1.34	1.39
1	A	645	A	N7-C5	-7.17	1.34	1.39
1	A	1710	G	N7-C5	-7.17	1.34	1.39
1	A	1826	G	C5-C4	-7.17	1.33	1.38
1	A	2894	C	C3'-O3'	7.17	1.52	1.42
1	A	780	A	C5-C4	-7.17	1.33	1.38
1	A	1396	A	N9-C4	-7.17	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1029	C	O5'-C5'	7.17	1.55	1.44
1	A	2050	A	C5-C4	-7.17	1.33	1.38
1	A	2615	G	N9-C8	-7.17	1.32	1.37
1	A	208	G	C6-N1	-7.17	1.34	1.39
1	A	527	G	C5-C4	-7.17	1.33	1.38
1	A	554	C	C5-C6	-7.17	1.28	1.34
1	A	1695	G	N7-C5	-7.17	1.34	1.39
1	A	256	C	N3-C4	-7.17	1.28	1.33
1	A	731	U	C2-N3	-7.17	1.32	1.37
1	A	543	G	C5-C6	-7.16	1.35	1.42
1	A	1294	G	C6-N1	-7.16	1.34	1.39
1	A	2715	G	N9-C8	-7.16	1.32	1.37
1	A	1003	A	N7-C5	-7.16	1.34	1.39
1	A	1818	A	C5-C4	-7.16	1.33	1.38
1	A	2712	G	C5-C4	-7.16	1.33	1.38
1	A	561	C	C4-C5	-7.16	1.37	1.43
1	A	640	G	N7-C5	-7.16	1.34	1.39
1	A	2036	G	N9-C8	-7.16	1.32	1.37
1	A	208	G	C5-C4	-7.15	1.33	1.38
1	A	701	G	N9-C8	-7.15	1.32	1.37
1	A	703	A	C5-C4	7.15	1.43	1.38
1	A	2036	G	C5-C4	-7.15	1.33	1.38
1	A	952	A	N9-C4	-7.15	1.33	1.37
1	A	511	G	N7-C5	-7.14	1.34	1.39
1	A	858	U	C2-O2	-7.14	1.16	1.22
1	A	1434	U	C2-O2	-7.14	1.16	1.22
1	A	2033	C	N3-C4	-7.14	1.28	1.33
1	A	2048	G	N7-C5	-7.14	1.34	1.39
1	A	2286	G	N7-C5	-7.14	1.34	1.39
1	A	828	A	C6-N1	-7.14	1.30	1.35
1	A	1197	C	C4-C5	-7.14	1.37	1.43
1	A	1473	G	C8-N7	-7.14	1.26	1.30
1	A	1832	C	N3-C4	-7.14	1.28	1.33
1	A	2032	A	N3-C4	-7.14	1.30	1.34
1	A	860	U	N3-C4	-7.13	1.32	1.38
1	A	862	C	N3-C4	-7.13	1.28	1.33
1	A	652	A	C5-C4	-7.13	1.33	1.38
1	A	2511	G	C5-C4	-7.13	1.33	1.38
1	A	2526	C	C4-C5	-7.13	1.37	1.43
1	A	25	U	N3-C4	-7.13	1.32	1.38
1	A	488	G	N7-C5	-7.13	1.34	1.39
1	A	38	A	N9-C4	-7.13	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	378	C	C5'-C4'	7.13	1.59	1.51
1	A	1376	G	C5-C4	-7.13	1.33	1.38
1	A	774	G	C5-C4	-7.12	1.33	1.38
1	A	905	U	O3'-P	7.12	1.69	1.61
1	A	1286	G	C6-O6	-7.12	1.17	1.24
1	A	1720	A	N7-C5	-7.12	1.34	1.39
1	A	2483	C	N1-C6	-7.12	1.32	1.37
1	A	558	A	C6-N1	-7.12	1.30	1.35
1	A	1717	G	C6-N1	-7.12	1.34	1.39
1	A	2597	G	N3-C4	-7.12	1.30	1.35
1	A	2017	C	N1-C6	-7.12	1.32	1.37
1	A	2758	G	C2-N3	-7.12	1.27	1.32
1	A	776	C	N3-C4	-7.11	1.28	1.33
1	A	704	U	N3-C4	-7.11	1.32	1.38
1	A	2866	G	N7-C5	-7.11	1.34	1.39
1	A	580	C	N3-C4	-7.11	1.28	1.33
1	A	740	G	C6-N1	-7.11	1.34	1.39
1	A	2356	A	N9-C4	-7.11	1.33	1.37
1	A	2652	G	C5-C4	-7.11	1.33	1.38
1	A	2490	C	N3-C4	-7.11	1.28	1.33
1	A	2758	G	N7-C5	-7.11	1.34	1.39
1	A	2855	A	N3-C4	-7.11	1.30	1.34
1	A	1229	G	N7-C5	-7.11	1.34	1.39
1	A	2068	U	C2-N3	-7.11	1.32	1.37
1	A	2650	G	C5-C4	-7.11	1.33	1.38
1	A	708	G	C5-C4	-7.10	1.33	1.38
1	A	1473	G	C6-N1	-7.10	1.34	1.39
1	A	192	G	C6-N1	-7.10	1.34	1.39
1	A	998	G	N9-C8	-7.10	1.32	1.37
1	A	1257	G	C2-N2	-7.10	1.27	1.34
1	A	226	A	C5-C4	-7.09	1.33	1.38
1	A	565	G	C5-C6	-7.09	1.35	1.42
1	A	1326	C	N3-C4	-7.09	1.28	1.33
1	A	1615	G	C5-C4	-7.09	1.33	1.38
1	A	1810	A	C6-N1	-7.09	1.30	1.35
1	A	498	G	N1-C2	-7.09	1.32	1.37
1	A	858	U	C4-O4	-7.09	1.18	1.23
1	A	2546	U	N1-C2	7.09	1.45	1.38
1	A	844	G	N7-C5	-7.09	1.34	1.39
1	A	621	A	N3-C4	-7.09	1.30	1.34
1	A	627	C	C2-N3	-7.09	1.30	1.35
1	A	839	A	C6-N1	-7.08	1.30	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	118	A	C5-C4	-7.08	1.33	1.38
1	A	1429	G	C6-N1	-7.08	1.34	1.39
1	A	952	A	N7-C5	-7.08	1.35	1.39
1	A	511	G	C6-N1	-7.08	1.34	1.39
1	A	1824	C	N1-C6	-7.08	1.32	1.37
1	A	1855	G	N1-C2	-7.08	1.32	1.37
1	A	669	C	C4-C5	-7.08	1.37	1.43
1	A	2866	G	C6-N1	-7.08	1.34	1.39
1	A	819	A	N7-C5	-7.07	1.35	1.39
1	A	854	G	N7-C5	-7.07	1.35	1.39
1	A	1979	A	N7-C5	-7.07	1.35	1.39
1	A	2274	A	C5-C4	-7.07	1.33	1.38
1	A	25	U	C2-N3	-7.07	1.32	1.37
1	A	1329	G	C6-N1	-7.07	1.34	1.39
1	A	2596	G	C2'-C1'	-7.07	1.45	1.53
1	A	498	G	C6-N1	-7.07	1.34	1.39
1	A	2298	G	C8-N7	-7.07	1.26	1.30
1	A	2066	G	C6-N1	-7.07	1.34	1.39
1	A	2530	A	C5-C4	-7.07	1.33	1.38
1	A	1369	G	N9-C4	7.06	1.43	1.38
1	A	198	A	N7-C5	-7.06	1.35	1.39
1	A	2463	G	C5-C4	-7.06	1.33	1.38
1	A	551	G	C5-C4	-7.06	1.33	1.38
1	A	611	U	C2-N3	-7.06	1.32	1.37
1	A	2078	A	C5-C6	-7.06	1.34	1.41
1	A	1294	G	N7-C5	-7.06	1.35	1.39
1	A	1376	G	N9-C4	-7.06	1.32	1.38
1	A	2624	G	N9-C8	-7.06	1.32	1.37
1	A	2669	G	C2-N3	-7.06	1.27	1.32
1	A	1028	G	N9-C4	7.05	1.43	1.38
1	A	1277	C	N3-C4	-7.05	1.29	1.33
1	A	2858	G	N7-C5	-7.05	1.35	1.39
1	A	1839	G	N9-C8	-7.05	1.32	1.37
1	A	985	A	C6-N6	-7.05	1.28	1.33
1	A	2083	G	C8-N7	-7.05	1.26	1.30
1	A	807	U	C2-N3	-7.05	1.32	1.37
1	A	1837	A	N7-C5	-7.05	1.35	1.39
1	A	675	G	C5-C4	-7.05	1.33	1.38
1	A	1179	C	P-OP2	-7.05	1.36	1.49
1	A	811	C	N3-C4	-7.04	1.29	1.33
1	A	1020	G	C6-N1	-7.04	1.34	1.39
1	A	2092	C	C2-O2	-7.04	1.18	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2895	G	N3-C4	-7.04	1.30	1.35
1	A	1050	C	C4-C5	-7.04	1.37	1.43
1	A	788	A	N7-C5	-7.04	1.35	1.39
1	A	730	A	C5-C4	-7.04	1.33	1.38
1	A	1852	G	C5-C4	-7.04	1.33	1.38
1	A	2848	G	N1-C2	-7.04	1.32	1.37
1	A	36	G	N1-C2	-7.03	1.32	1.37
1	A	822	G	N1-C2	-7.03	1.32	1.37
1	A	983	G	C6-N1	-7.03	1.34	1.39
1	A	2385	A	N7-C5	-7.03	1.35	1.39
1	A	1024	A	C6-N1	-7.03	1.30	1.35
1	A	275	A	N9-C4	-7.03	1.33	1.37
1	A	1003	A	C5-C4	-7.03	1.33	1.38
1	A	967	C	C2-N3	-7.03	1.30	1.35
1	A	861	C	C2-N3	7.03	1.41	1.35
1	A	1347	G	C6-N1	-7.03	1.34	1.39
1	A	1854	U	N3-C4	-7.03	1.32	1.38
1	A	1301	U	N1-C6	-7.02	1.31	1.38
1	A	500	A	N9-C4	7.02	1.42	1.37
1	A	1276	G	C5-C4	-7.02	1.33	1.38
1	A	878	C	C4-C5	-7.02	1.37	1.43
1	A	255	G	C8-N7	-7.02	1.26	1.30
1	A	2746	G	C6-N1	-7.02	1.34	1.39
1	A	2625	A	N7-C5	-7.02	1.35	1.39
1	A	845	A	C5-C4	-7.01	1.33	1.38
1	A	1618	A	N9-C4	-7.01	1.33	1.37
1	A	1269	A	C6-N1	-7.01	1.30	1.35
1	A	2592	A	N7-C5	-7.01	1.35	1.39
1	A	360	A	C5-C6	7.01	1.47	1.41
1	A	2018	U	N3-C4	-7.01	1.32	1.38
1	A	2265	G	N7-C5	-7.01	1.35	1.39
1	A	254	A	N9-C8	-7.01	1.32	1.37
1	A	624	C	C2-N3	-7.01	1.30	1.35
1	A	744	A	N3-C4	-7.01	1.30	1.34
1	A	1174	U	C2'-C1'	-7.01	1.45	1.53
1	A	2056	G	C6-O6	-7.01	1.17	1.24
1	A	2107	G	C6-N1	-7.01	1.34	1.39
1	A	251	G	C6-N1	-7.00	1.34	1.39
1	A	1235	C	C5-C6	-7.00	1.28	1.34
1	A	2469	C	C2-N3	-7.00	1.30	1.35
1	A	241	C	O3'-P	7.00	1.69	1.61
1	A	468	A	N7-C5	-7.00	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	487	U	C2-N3	-7.00	1.32	1.37
1	A	2304	G	N7-C5	-7.00	1.35	1.39
1	A	1313	G	C6-N1	-7.00	1.34	1.39
1	A	520	G	C6-N1	-7.00	1.34	1.39
1	A	2094	G	C2-N3	7.00	1.38	1.32
1	A	1378	U	C2-N3	-7.00	1.32	1.37
1	A	37	C	C2-O2	-6.99	1.18	1.24
1	A	895	U	N3-C4	-6.99	1.32	1.38
1	A	867	U	N3-C4	-6.99	1.32	1.38
1	A	2605	G	C6-N1	-6.99	1.34	1.39
1	A	539	G	C6-N1	-6.99	1.34	1.39
1	A	1252	A	C8-N7	-6.99	1.26	1.31
1	A	1677	G	C5-C4	-6.99	1.33	1.38
1	A	2594	G	N9-C8	-6.99	1.32	1.37
1	A	1290	G	C6-O6	-6.99	1.17	1.24
1	A	2598	U	C2-N3	-6.99	1.32	1.37
1	A	613	G	C5-C4	-6.98	1.33	1.38
1	A	373	A	C8-N7	-6.98	1.26	1.31
1	A	1290	G	C8-N7	-6.98	1.26	1.30
1	A	263	G	C8-N7	-6.98	1.26	1.30
1	A	2052	C	C5-C6	-6.98	1.28	1.34
1	A	2072	C	C2-N3	-6.98	1.30	1.35
1	A	2632	U	C2-N3	-6.98	1.32	1.37
1	A	644	C	C4'-C3'	-6.98	1.45	1.53
1	A	816	G	C5-C4	-6.98	1.33	1.38
1	A	2497	G	C8-N7	-6.98	1.26	1.30
1	A	545	G	N9-C4	-6.98	1.32	1.38
1	A	746	G	C5-C4	-6.98	1.33	1.38
1	A	836	C	N1-C6	-6.98	1.32	1.37
1	A	2801	C	N1-C6	-6.98	1.32	1.37
1	A	546	A	C5-C6	-6.97	1.34	1.41
1	A	700	A	N9-C4	-6.97	1.33	1.37
1	A	824	A	C5-C6	-6.97	1.34	1.41
1	A	916	U	C2-N3	-6.97	1.32	1.37
1	A	1012	G	C5-C4	-6.97	1.33	1.38
1	A	2452	A	N9-C4	-6.97	1.33	1.37
1	A	352	A	N1-C2	-6.97	1.28	1.34
1	A	2001	C	N3-C4	-6.97	1.29	1.33
1	A	843	G	C8-N7	-6.97	1.26	1.30
1	A	1391	A	N9-C4	-6.97	1.33	1.37
1	A	2901	U	N3-C4	-6.97	1.32	1.38
1	A	519	G	C6-N1	-6.97	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2389	G	C6-N1	-6.97	1.34	1.39
1	A	2480	A	C6-N1	-6.97	1.30	1.35
1	A	2514	G	N9-C8	-6.97	1.32	1.37
1	A	2396	A	N9-C8	-6.96	1.32	1.37
1	A	989	A	N9-C8	-6.96	1.32	1.37
1	A	533	C	O3'-P	6.96	1.69	1.61
1	A	817	G	C6-N1	-6.96	1.34	1.39
1	A	2023	C	C2-N3	-6.96	1.30	1.35
1	A	732	C	N3-C4	-6.96	1.29	1.33
1	A	2814	C	N3-C4	-6.96	1.29	1.33
1	A	253	G	C2-N2	-6.96	1.27	1.34
1	A	1083	G	N7-C5	-6.96	1.35	1.39
1	A	2664	U	N3-C4	-6.96	1.32	1.38
1	A	1033	G	C6-N1	-6.96	1.34	1.39
1	A	735	C	N3-C4	-6.95	1.29	1.33
1	A	1289	A	C5-C4	-6.95	1.33	1.38
1	A	2298	G	C6-N1	-6.95	1.34	1.39
1	A	997	G	C5-C4	-6.95	1.33	1.38
1	A	717	C	N3-C4	-6.95	1.29	1.33
1	A	2644	C	N1-C6	-6.95	1.32	1.37
1	A	1055	A	N7-C5	-6.95	1.35	1.39
1	A	668	C	N3-C4	-6.94	1.29	1.33
1	A	71	A	N7-C5	-6.94	1.35	1.39
1	A	197	G	N9-C8	-6.94	1.32	1.37
2	B	78	U	C2-N3	-6.94	1.32	1.37
1	A	869	G	N1-C2	-6.94	1.32	1.37
1	A	2300	A	C6-N1	-6.94	1.30	1.35
1	A	537	A	C5-C4	-6.94	1.33	1.38
1	A	2066	G	N7-C5	-6.94	1.35	1.39
1	A	2646	U	C4'-C3'	6.94	1.60	1.53
1	A	209	U	C2-N3	-6.93	1.32	1.37
1	A	1182	G	C6-O6	-6.93	1.18	1.24
1	A	1278	G	C6-N1	-6.93	1.34	1.39
8	H	109	MET	C-N	-6.93	1.18	1.34
1	A	642	U	C4-O4	-6.93	1.18	1.23
1	A	727	G	C6-N1	-6.93	1.34	1.39
1	A	2808	A	C5-C6	-6.93	1.34	1.41
1	A	712	U	N1-C2	-6.93	1.32	1.38
1	A	1644	C	N3-C4	-6.93	1.29	1.33
1	A	2900	C	N3-C4	-6.93	1.29	1.33
1	A	817	G	N1-C2	-6.93	1.32	1.37
1	A	1376	G	N3-C4	-6.93	1.30	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1225	G	C2-N3	-6.92	1.27	1.32
1	A	1298	G	C4'-C3'	-6.92	1.45	1.53
1	A	1346	G	C8-N7	-6.92	1.26	1.30
1	A	53	A	C6-N1	-6.92	1.30	1.35
1	A	2096	G	N9-C8	-6.92	1.33	1.37
1	A	203	U	C4-O4	-6.92	1.18	1.23
1	A	1471	A	N9-C4	-6.92	1.33	1.37
1	A	2005	A	N7-C5	-6.92	1.35	1.39
1	A	1056	U	C4-C5	-6.92	1.37	1.43
1	A	2273	G	C5-C6	-6.92	1.35	1.42
1	A	272	C	C2-N3	-6.91	1.30	1.35
1	A	560	A	C5-C4	-6.91	1.33	1.38
1	A	1369	G	C2-N3	6.91	1.38	1.32
1	A	2715	G	C6-N1	-6.91	1.34	1.39
1	A	574	A	C6-N1	-6.91	1.30	1.35
1	A	2517	G	N3-C4	-6.91	1.30	1.35
1	A	2602	C	C2-N3	-6.91	1.30	1.35
1	A	607	C	C5-C6	-6.91	1.28	1.34
1	A	782	C	C2-N3	-6.91	1.30	1.35
1	A	1850	G	C6-N1	-6.91	1.34	1.39
1	A	123	G	N7-C5	-6.91	1.35	1.39
1	A	13	A	N7-C5	-6.90	1.35	1.39
1	A	1613	G	C5-C4	-6.90	1.33	1.38
1	A	89	U	C2-N3	-6.90	1.32	1.37
1	A	197	G	N3-C4	-6.90	1.30	1.35
1	A	625	G	N9-C8	-6.90	1.33	1.37
1	A	1298	G	N7-C5	-6.90	1.35	1.39
1	A	1200	A	N7-C5	-6.90	1.35	1.39
1	A	20	C	N3-C4	-6.90	1.29	1.33
1	A	825	G	N7-C5	-6.90	1.35	1.39
1	A	1229	G	N9-C4	-6.90	1.32	1.38
1	A	56	A	N9-C4	-6.89	1.33	1.37
1	A	474	A	N7-C5	-6.89	1.35	1.39
1	A	865	A	C5-C4	-6.89	1.33	1.38
1	A	1429	G	C8-N7	-6.89	1.26	1.30
1	A	2864	A	C2-N3	-6.89	1.27	1.33
1	A	1010	G	C6-N1	-6.89	1.34	1.39
1	A	534	G	C2-N3	-6.89	1.27	1.32
1	A	1392	G	C5-C4	-6.89	1.33	1.38
1	A	1697	G	C8-N7	-6.89	1.26	1.30
1	A	1854	U	C4-C5	-6.89	1.37	1.43
1	A	1957	G	N9-C4	-6.89	1.32	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1186	A	N3-C4	-6.89	1.30	1.34
1	A	366	G	C2-N3	-6.89	1.27	1.32
1	A	2867	U	N3-C4	-6.89	1.32	1.38
1	A	710	C	C4-C5	-6.88	1.37	1.43
1	A	813	G	C6-N1	-6.88	1.34	1.39
1	A	847	A	N9-C8	-6.88	1.32	1.37
1	A	1673	A	N7-C5	-6.88	1.35	1.39
1	A	1803	G	N9-C8	-6.88	1.33	1.37
1	A	2034	U	C2-N3	-6.88	1.32	1.37
1	A	202	A	N9-C8	-6.88	1.32	1.37
1	A	635	G	C5-C4	-6.88	1.33	1.38
1	A	1044	A	C6-N1	-6.88	1.30	1.35
1	A	1617	A	N3-C4	-6.88	1.30	1.34
1	A	1684	A	N7-C5	-6.88	1.35	1.39
1	A	1826	G	C6-N1	-6.88	1.34	1.39
1	A	2304	G	C5-C4	-6.88	1.33	1.38
1	A	2615	G	C8-N7	-6.88	1.26	1.30
1	A	253	G	N9-C4	-6.88	1.32	1.38
1	A	515	G	N9-C8	-6.88	1.33	1.37
1	A	669	C	N1-C6	-6.88	1.33	1.37
1	A	802	G	C5-C4	-6.88	1.33	1.38
1	A	2547	C	N3-C4	-6.88	1.29	1.33
1	A	524	A	N3-C4	-6.88	1.30	1.34
1	A	1248	U	N1-C2	-6.87	1.32	1.38
1	A	2843	A	C5-C4	-6.87	1.33	1.38
1	A	713	A	N7-C5	-6.87	1.35	1.39
1	A	1012	G	C8-N7	-6.87	1.26	1.30
1	A	356	A	C5-C6	-6.87	1.34	1.41
1	A	574	A	C5-C4	-6.87	1.33	1.38
1	A	806	A	C5-C4	-6.87	1.33	1.38
1	A	819	A	N3-C4	-6.87	1.30	1.34
1	A	820	G	C6-N1	-6.87	1.34	1.39
1	A	998	G	C5-C4	-6.87	1.33	1.38
1	A	2543	G	C5-C6	-6.87	1.35	1.42
1	A	1615	G	N9-C8	-6.86	1.33	1.37
1	A	2517	G	N7-C5	-6.86	1.35	1.39
1	A	24	G	C6-O6	-6.86	1.18	1.24
1	A	1473	G	N7-C5	-6.86	1.35	1.39
1	A	254	A	C6-N1	-6.86	1.30	1.35
1	A	54	G	N7-C5	-6.86	1.35	1.39
1	A	56	A	C5-C4	-6.86	1.33	1.38
1	A	247	A	N7-C5	-6.86	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	634	C	N3-C4	-6.86	1.29	1.33
1	A	1224	U	N3-C4	-6.86	1.32	1.38
1	A	1797	G	C5-C4	-6.86	1.33	1.38
1	A	2079	G	C2-N2	-6.86	1.27	1.34
1	A	2845	G	C6-N1	-6.86	1.34	1.39
1	A	571	A	C5-C4	-6.86	1.33	1.38
1	A	721	A	C5-C6	-6.85	1.34	1.41
1	A	2295	A	N9-C8	-6.85	1.32	1.37
1	A	642	U	N1-C6	-6.85	1.31	1.38
1	A	1060	U	C2-N3	-6.85	1.32	1.37
1	A	2277	G	C6-N1	-6.85	1.34	1.39
1	A	355	G	C5-C6	-6.85	1.35	1.42
1	A	804	G	C5-C4	-6.85	1.33	1.38
1	A	983	G	C5-C4	-6.85	1.33	1.38
1	A	1194	U	C4-C5	-6.85	1.37	1.43
1	A	2080	G	N9-C4	-6.85	1.32	1.38
1	A	251	G	N3-C4	-6.85	1.30	1.35
1	A	1718	G	N9-C8	-6.85	1.33	1.37
1	A	2792	A	C5-C4	-6.85	1.33	1.38
1	A	495	A	C8-N7	-6.85	1.26	1.31
1	A	612	U	N1-C2	-6.85	1.32	1.38
1	A	95	A	C5-C4	-6.84	1.33	1.38
1	A	843	G	N1-C2	-6.84	1.32	1.37
1	A	2851	G	C8-N7	-6.84	1.26	1.30
1	A	747	U	C2-N3	-6.84	1.32	1.37
1	A	869	G	N9-C8	-6.84	1.33	1.37
1	A	1259	U	C2-N3	-6.84	1.32	1.37
1	A	1672	G	C5-C4	-6.84	1.33	1.38
1	A	1850	G	N7-C5	-6.84	1.35	1.39
1	A	648	G	P-O5'	6.83	1.66	1.59
1	A	2041	A	N9-C4	-6.83	1.33	1.37
1	A	511	G	C8-N7	-6.83	1.26	1.30
1	A	1276	G	N1-C2	-6.83	1.32	1.37
1	A	2848	G	C2-N3	-6.83	1.27	1.32
1	A	2830	A	C8-N7	-6.83	1.26	1.31
1	A	190	G	C6-N1	-6.83	1.34	1.39
1	A	1195	A	C8-N7	-6.83	1.26	1.31
1	A	2748	A	N7-C5	-6.83	1.35	1.39
1	A	833	A	C6-N1	-6.83	1.30	1.35
1	A	29	U	N3-C4	-6.82	1.32	1.38
1	A	2007	G	C8-N7	-6.82	1.26	1.30
1	A	2097	G	N7-C5	-6.82	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2008	A	C5-C4	-6.82	1.33	1.38
1	A	538	G	C2-N3	-6.82	1.27	1.32
1	A	863	G	N1-C2	-6.82	1.32	1.37
1	A	1304	G	C5-C4	-6.82	1.33	1.38
1	A	1804	U	C2-O2	-6.82	1.16	1.22
1	A	2481	G	C8-N7	-6.82	1.26	1.30
1	A	848	U	N3-C4	-6.82	1.32	1.38
1	A	1286	G	N3-C4	-6.82	1.30	1.35
1	A	2044	C	O3'-P	6.82	1.69	1.61
1	A	2394	G	N7-C5	-6.82	1.35	1.39
1	A	979	C	N1-C6	-6.81	1.33	1.37
1	A	1740	G	C6-N1	-6.81	1.34	1.39
1	A	2896	A	N7-C5	-6.81	1.35	1.39
1	A	2296	A	N7-C5	-6.81	1.35	1.39
1	A	58	G	N1-C2	-6.81	1.32	1.37
1	A	1318	G	C6-N1	-6.81	1.34	1.39
1	A	1853	C	N3-C4	-6.81	1.29	1.33
1	A	18	C	N1-C6	-6.81	1.33	1.37
1	A	483	C	C4-C5	-6.81	1.37	1.43
1	A	1813	A	N3-C4	-6.81	1.30	1.34
1	A	54	G	C8-N7	-6.81	1.26	1.30
1	A	863	G	C5-C4	-6.80	1.33	1.38
1	A	2026	C	N3-C4	-6.80	1.29	1.33
1	A	1014	U	C5-C6	-6.80	1.28	1.34
1	A	1226	G	C2-N2	-6.80	1.27	1.34
1	A	2055	U	N1-C6	-6.80	1.31	1.38
1	A	504	G	N7-C5	-6.80	1.35	1.39
1	A	1618	A	N3-C4	-6.80	1.30	1.34
1	A	2115	A	N7-C5	-6.80	1.35	1.39
1	A	68	A	C5-C6	-6.80	1.34	1.41
1	A	876	G	C6-N1	-6.80	1.34	1.39
1	A	1282	A	N3-C4	-6.80	1.30	1.34
1	A	1711	G	C6-N1	-6.80	1.34	1.39
1	A	2079	G	N1-C2	-6.80	1.32	1.37
1	A	2095	U	C5-C6	-6.80	1.28	1.34
1	A	660	A	N7-C5	-6.79	1.35	1.39
1	A	1801	C	N1-C6	-6.79	1.33	1.37
1	A	55	G	C5-C4	-6.79	1.33	1.38
1	A	566	U	C2-N3	-6.79	1.32	1.37
1	A	597	U	C4-C5	-6.79	1.37	1.43
1	A	741	G	N9-C8	-6.79	1.33	1.37
1	A	2038	U	C2-N3	-6.79	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1285	A	N9-C4	-6.79	1.33	1.37
1	A	1693	G	C5-C6	-6.79	1.35	1.42
1	A	303	G	N3-C4	-6.79	1.30	1.35
1	A	854	G	C8-N7	-6.79	1.26	1.30
1	A	669	C	N3-C4	-6.79	1.29	1.33
1	A	635	G	N1-C2	-6.78	1.32	1.37
1	A	1354	G	N1-C2	-6.78	1.32	1.37
1	A	2293	A	N9-C8	-6.78	1.32	1.37
1	A	615	A	N1-C2	-6.78	1.28	1.34
1	A	639	U	C4'-C3'	6.78	1.60	1.53
1	A	849	A	N3-C4	-6.78	1.30	1.34
1	A	822	G	C5-C4	-6.78	1.33	1.38
1	A	2005	A	N3-C4	-6.78	1.30	1.34
1	A	1618	A	N7-C5	-6.78	1.35	1.39
1	A	2670	G	C5-C4	-6.78	1.33	1.38
1	A	984	G	C2-N3	-6.78	1.27	1.32
1	A	1015	C	N1-C2	6.78	1.47	1.40
1	A	2624	G	N7-C5	-6.78	1.35	1.39
1	A	673	G	N9-C8	-6.77	1.33	1.37
1	A	2669	G	N7-C5	-6.77	1.35	1.39
1	A	2888	A	P-O5'	6.77	1.66	1.59
1	A	815	G	C6-N1	-6.77	1.34	1.39
1	A	826	A	N7-C5	-6.77	1.35	1.39
1	A	1256	U	C2-N3	-6.77	1.33	1.37
1	A	1686	G	C5-C4	-6.77	1.33	1.38
1	A	2633	C	N3-C4	-6.77	1.29	1.33
1	A	2868	G	C3'-O3'	6.77	1.51	1.42
1	A	805	G	N1-C2	-6.77	1.32	1.37
1	A	1388	C	N1-C6	-6.77	1.33	1.37
1	A	2841	A	C5-C4	-6.77	1.34	1.38
1	A	539	G	N1-C2	-6.77	1.32	1.37
1	A	864	A	N3-C4	-6.77	1.30	1.34
1	A	2858	G	C6-N1	-6.77	1.34	1.39
1	A	870	C	N3-C4	-6.76	1.29	1.33
1	A	961	G	C6-N1	-6.76	1.34	1.39
1	A	33	U	N3-C4	-6.76	1.32	1.38
1	A	2368	G	C2-N2	-6.76	1.27	1.34
1	A	2521	G	N1-C2	-6.76	1.32	1.37
1	A	1299	U	N3-C4	-6.76	1.32	1.38
1	A	1713	A	N7-C5	-6.76	1.35	1.39
1	A	2048	G	N3-C4	-6.76	1.30	1.35
1	A	2039	G	N3-C4	-6.76	1.30	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	514	G	N7-C5	-6.75	1.35	1.39
1	A	215	G	C6-N1	-6.75	1.34	1.39
1	A	420	A	N7-C5	-6.75	1.35	1.39
1	A	1711	G	C5-C4	-6.75	1.33	1.38
1	A	224	A	N7-C5	-6.75	1.35	1.39
1	A	483	C	N1-C6	-6.75	1.33	1.37
1	A	744	A	N9-C4	-6.75	1.33	1.37
1	A	2013	G	N1-C2	-6.75	1.32	1.37
1	A	2756	G	C5-C4	-6.75	1.33	1.38
1	A	571	A	C6-N1	-6.75	1.30	1.35
1	A	2716	U	C2-N3	-6.75	1.33	1.37
1	A	612	U	C4-C5	-6.74	1.37	1.43
1	A	780	A	N9-C8	-6.74	1.32	1.37
1	A	342	A	N7-C5	-6.74	1.35	1.39
1	A	1018	A	N3-C4	-6.74	1.30	1.34
1	A	1430	A	C5-C4	-6.74	1.34	1.38
1	A	15	G	N9-C8	-6.74	1.33	1.37
1	A	251	G	C2-N2	-6.74	1.27	1.34
1	A	815	G	C2-N3	-6.74	1.27	1.32
1	A	820	G	N3-C4	-6.74	1.30	1.35
1	A	987	U	C2-N3	-6.74	1.33	1.37
1	A	1200	A	C2-N3	-6.74	1.27	1.33
1	A	1673	A	C5-C4	-6.74	1.34	1.38
1	A	1698	A	N3-C4	-6.74	1.30	1.34
1	A	118	A	N9-C8	-6.74	1.32	1.37
1	A	881	G	C8-N7	-6.74	1.26	1.30
1	A	1164	G	N7-C5	-6.74	1.35	1.39
1	A	250	G	C6-N1	-6.73	1.34	1.39
1	A	866	A	N9-C8	-6.73	1.32	1.37
1	A	2658	G	C2-N3	-6.73	1.27	1.32
1	A	1355	A	N3-C4	-6.73	1.30	1.34
1	A	1422	A	N9-C4	-6.73	1.33	1.37
1	A	2066	G	N9-C8	-6.73	1.33	1.37
1	A	648	G	N9-C8	-6.73	1.33	1.37
1	A	781	C	C4-C5	-6.73	1.37	1.43
1	A	1836	A	N7-C5	-6.73	1.35	1.39
1	A	2024	A	C6-N1	-6.73	1.30	1.35
1	A	2077	C	N3-C4	-6.73	1.29	1.33
1	A	844	G	C5-C4	-6.73	1.33	1.38
1	A	2658	G	N3-C4	-6.73	1.30	1.35
1	A	2746	G	C5-C4	-6.73	1.33	1.38
1	A	628	G	N9-C8	-6.72	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2652	G	N9-C8	-6.72	1.33	1.37
1	A	1284	A	C5-C4	-6.72	1.34	1.38
1	A	1702	C	C2-O2	-6.72	1.18	1.24
1	A	845	A	N3-C4	-6.72	1.30	1.34
1	A	601	G	C5-C4	-6.72	1.33	1.38
1	A	783	G	C6-N1	-6.72	1.34	1.39
1	A	1335	C	C4-C5	-6.72	1.37	1.43
1	A	2544	C	C2-N3	-6.72	1.30	1.35
1	A	2864	A	C6-N1	-6.72	1.30	1.35
1	A	1429	G	N7-C5	-6.72	1.35	1.39
1	A	2095	U	N3-C4	-6.72	1.32	1.38
1	A	2434	A	C5-C6	-6.72	1.35	1.41
1	A	118	A	N3-C4	-6.71	1.30	1.34
1	A	514	G	N1-C2	-6.71	1.32	1.37
1	A	1390	A	N9-C4	-6.71	1.33	1.37
1	A	1862	G	N1-C2	-6.71	1.32	1.37
1	A	380	U	C2-N3	-6.71	1.33	1.37
1	A	2836	C	N1-C6	-6.71	1.33	1.37
1	A	2897	A	N7-C5	-6.71	1.35	1.39
1	A	603	C	C4-C5	-6.71	1.37	1.43
1	A	741	G	N7-C5	-6.71	1.35	1.39
1	A	1055	A	N3-C4	-6.71	1.30	1.34
1	A	1367	C	C4-C5	-6.71	1.37	1.43
1	A	2290	C	N3-C4	-6.71	1.29	1.33
1	A	713	A	C5-C4	-6.71	1.34	1.38
1	A	1675	G	N7-C5	-6.71	1.35	1.39
1	A	2800	U	C4-O4	-6.71	1.18	1.23
1	A	985	A	N7-C5	-6.71	1.35	1.39
1	A	1013	U	C2-O2	-6.70	1.16	1.22
1	A	1741	G	C5-C4	-6.70	1.33	1.38
1	A	2066	G	N1-C2	-6.70	1.32	1.37
1	A	2105	C	C4-C5	-6.70	1.37	1.43
1	A	2742	C	N3-C4	-6.70	1.29	1.33
1	A	2265	G	C2-N3	-6.70	1.27	1.32
1	A	986	G	C8-N7	-6.70	1.26	1.30
1	A	1045	A	C5-C4	-6.70	1.34	1.38
1	A	1173	A	N9-C4	-6.70	1.33	1.37
1	A	218	G	N7-C5	-6.70	1.35	1.39
1	A	2064	A	N9-C4	-6.70	1.33	1.37
1	A	2897	A	N3-C4	-6.70	1.30	1.34
1	A	740	G	N1-C2	-6.70	1.32	1.37
1	A	1834	G	C6-N1	-6.70	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	499	A	N7-C5	-6.69	1.35	1.39
1	A	996	G	C2-N3	-6.69	1.27	1.32
1	A	2295	A	C6-N1	-6.69	1.30	1.35
1	A	58	G	C6-N1	-6.69	1.34	1.39
1	A	351	G	N3-C4	-6.69	1.30	1.35
1	A	511	G	N9-C8	-6.69	1.33	1.37
1	A	613	G	C6-N1	-6.69	1.34	1.39
1	A	1611	C	N3-C4	-6.69	1.29	1.33
1	A	1705	G	C2-N2	-6.69	1.27	1.34
1	A	1719	C	C2-N3	-6.69	1.30	1.35
1	A	2654	G	C6-N1	-6.69	1.34	1.39
1	A	2572	G	N1-C2	-6.69	1.32	1.37
1	A	1704	C	N1-C6	-6.68	1.33	1.37
1	A	2888	A	N1-C2	-6.68	1.28	1.34
1	A	2391	C	P-O5'	6.68	1.66	1.59
1	A	2849	A	N7-C5	-6.68	1.35	1.39
1	A	15	G	N1-C2	-6.68	1.32	1.37
1	A	816	G	N9-C8	-6.68	1.33	1.37
1	A	1699	A	N1-C2	-6.68	1.28	1.34
1	A	2094	G	N3-C4	6.68	1.40	1.35
1	A	2106	U	C2-N3	-6.68	1.33	1.37
1	A	1018	A	N9-C8	-6.68	1.32	1.37
1	A	2643	C	C4-C5	-6.68	1.37	1.43
1	A	95	A	C6-N6	-6.67	1.28	1.33
1	A	1058	U	N3-C4	-6.67	1.32	1.38
1	A	2663	U	O3'-P	6.67	1.69	1.61
1	A	2848	G	C6-N1	-6.67	1.34	1.39
1	A	824	A	C5-C4	-6.67	1.34	1.38
1	A	891	A	N9-C4	-6.67	1.33	1.37
1	A	2473	G	P-O5'	-6.67	1.53	1.59
1	A	2570	G	N1-C2	-6.67	1.32	1.37
1	A	715	A	C5-C4	-6.67	1.34	1.38
1	A	877	G	C5-C4	-6.67	1.33	1.38
1	A	1733	A	N7-C5	-6.67	1.35	1.39
1	A	2601	G	C5-C4	-6.67	1.33	1.38
1	A	1336	G	C6-N1	-6.67	1.34	1.39
1	A	1392	G	N9-C8	-6.67	1.33	1.37
1	A	729	G	N9-C8	-6.67	1.33	1.37
1	A	1807	A	N7-C5	-6.67	1.35	1.39
1	A	1300	G	N7-C5	-6.67	1.35	1.39
1	A	250	G	N1-C2	-6.66	1.32	1.37
1	A	544	U	C4-O4	-6.66	1.18	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	742	U	C2-N3	-6.66	1.33	1.37
1	A	1291	A	N7-C5	-6.66	1.35	1.39
1	A	2571	G	C5-C4	-6.66	1.33	1.38
1	A	511	G	N1-C2	-6.66	1.32	1.37
1	A	618	A	N7-C5	-6.66	1.35	1.39
1	A	1816	A	N3-C4	-6.66	1.30	1.34
1	A	1832	C	N1-C6	-6.66	1.33	1.37
1	A	2028	A	N1-C2	-6.66	1.28	1.34
1	A	740	G	C5-C4	-6.66	1.33	1.38
1	A	1785	G	C6-N1	-6.66	1.34	1.39
1	A	2294	A	N7-C5	-6.66	1.35	1.39
1	A	813	G	C5-C4	-6.66	1.33	1.38
1	A	840	C	N1-C6	-6.66	1.33	1.37
1	A	2052	C	C2-N3	-6.66	1.30	1.35
1	A	2754	G	N1-C2	-6.66	1.32	1.37
1	A	881	G	N3-C4	-6.65	1.30	1.35
1	A	2079	G	N9-C8	-6.65	1.33	1.37
1	A	559	A	C5-C4	-6.65	1.34	1.38
1	A	997	G	N1-C2	-6.65	1.32	1.37
1	A	1677	G	N7-C5	-6.65	1.35	1.39
1	A	2452	A	N7-C5	-6.65	1.35	1.39
1	A	2039	G	C6-N1	-6.65	1.34	1.39
1	A	1823	U	C2-N3	-6.65	1.33	1.37
1	A	2358	G	C6-N1	-6.64	1.34	1.39
1	A	2544	C	O3'-P	6.64	1.69	1.61
1	A	914	G	N7-C5	-6.64	1.35	1.39
1	A	1414	G	C5-C4	-6.64	1.33	1.38
1	A	2482	G	N9-C8	-6.64	1.33	1.37
1	A	2605	G	N7-C5	-6.64	1.35	1.39
1	A	2538	U	C2-N3	-6.64	1.33	1.37
1	A	1393	C	N1-C6	-6.64	1.33	1.37
1	A	2497	G	N7-C5	-6.64	1.35	1.39
1	A	2702	A	C6-N1	-6.64	1.30	1.35
1	A	2840	A	N7-C5	-6.64	1.35	1.39
1	A	2845	G	C2-N2	-6.64	1.27	1.34
1	A	1699	A	C6-N1	-6.64	1.30	1.35
1	A	2047	A	C5-C4	-6.64	1.34	1.38
1	A	42	G	N3-C4	-6.64	1.30	1.35
1	A	1323	A	N7-C5	-6.64	1.35	1.39
1	A	2099	G	C6-N1	-6.64	1.34	1.39
1	A	2836	C	N3-C4	-6.64	1.29	1.33
1	A	574	A	N9-C4	-6.63	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1011	U	C5-C6	-6.63	1.28	1.34
1	A	1837	A	N3-C4	-6.63	1.30	1.34
1	A	2665	G	C8-N7	-6.63	1.26	1.30
1	A	2088	G	N9-C8	-6.63	1.33	1.37
1	A	2714	U	C4-O4	-6.63	1.18	1.23
1	A	509	G	N1-C2	-6.63	1.32	1.37
1	A	1021	G	C2-N3	-6.63	1.27	1.32
1	A	2054	G	C5-C4	-6.63	1.33	1.38
1	A	2521	G	C8-N7	-6.63	1.26	1.30
1	A	2855	A	C6-N1	-6.63	1.30	1.35
1	A	2796	C	N3-C4	-6.63	1.29	1.33
1	A	1391	A	N9-C8	-6.63	1.32	1.37
1	A	2741	G	C5-C4	-6.63	1.33	1.38
1	A	507	C	N1-C6	-6.63	1.33	1.37
1	A	1204	G	N7-C5	-6.63	1.35	1.39
1	A	1354	G	C2-N3	-6.63	1.27	1.32
1	A	1369	G	C6-N1	-6.63	1.34	1.39
1	A	2083	G	N9-C8	-6.63	1.33	1.37
1	A	573	A	N3-C4	-6.62	1.30	1.34
1	A	670	G	C5-C4	-6.62	1.33	1.38
1	A	881	G	N1-C2	-6.62	1.32	1.37
1	A	1354	G	N3-C4	-6.62	1.30	1.35
1	A	2575	G	C6-N1	-6.62	1.34	1.39
1	A	692	G	C8-N7	-6.62	1.26	1.30
1	A	883	C	C2-N3	-6.62	1.30	1.35
1	A	352	A	N9-C4	6.61	1.41	1.37
1	A	442	G	N7-C5	-6.61	1.35	1.39
1	A	540	G	N1-C2	-6.61	1.32	1.37
1	A	1720	A	C5-C6	-6.61	1.35	1.41
1	A	2410	G	N7-C5	-6.61	1.35	1.39
1	A	559	A	C6-N1	-6.61	1.30	1.35
1	A	513	G	N1-C2	-6.61	1.32	1.37
1	A	1032	A	N1-C2	-6.61	1.28	1.34
1	A	900	G	N1-C2	-6.61	1.32	1.37
1	A	621	A	N1-C2	-6.61	1.28	1.34
1	A	2014	G	C5-C4	-6.61	1.33	1.38
1	A	368	A	N9-C4	6.61	1.41	1.37
1	A	2354	A	N7-C5	-6.61	1.35	1.39
1	A	1834	G	C8-N7	-6.60	1.26	1.30
1	A	2393	A	N9-C4	-6.60	1.33	1.37
1	A	1006	G	P-O5'	6.60	1.66	1.59
1	A	2074	C	N3-C4	-6.60	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2356	A	C5-C4	-6.60	1.34	1.38
1	A	1720	A	C5-C4	-6.60	1.34	1.38
1	A	514	G	C8-N7	-6.60	1.26	1.30
1	A	729	G	N7-C5	-6.60	1.35	1.39
1	A	832	C	C2-N3	-6.60	1.30	1.35
1	A	1410	A	N7-C5	-6.60	1.35	1.39
1	A	1848	A	C5-C4	-6.60	1.34	1.38
1	A	126	A	N7-C5	-6.59	1.35	1.39
1	A	840	C	C2-N3	-6.59	1.30	1.35
1	A	882	C	C2-O2	-6.59	1.18	1.24
1	A	1028	G	O3'-P	6.59	1.69	1.61
1	A	1802	U	C2-N3	-6.59	1.33	1.37
1	A	1811	A	C6-N1	-6.59	1.30	1.35
1	A	2839	A	N3-C4	-6.59	1.30	1.34
1	A	218	G	C6-N1	-6.59	1.34	1.39
1	A	719	G	C5-C4	-6.59	1.33	1.38
1	A	1834	G	N1-C2	-6.59	1.32	1.37
1	A	1320	G	N7-C5	-6.59	1.35	1.39
1	A	2083	G	N1-C2	-6.59	1.32	1.37
1	A	627	C	C5-C6	-6.59	1.29	1.34
1	A	991	A	C6-N6	-6.59	1.28	1.33
1	A	2050	A	N3-C4	-6.59	1.30	1.34
1	A	16	G	C5-C4	-6.59	1.33	1.38
1	A	1814	A	C2-N3	-6.59	1.27	1.33
1	A	180	G	C6-N1	-6.59	1.34	1.39
1	A	2025	A	C8-N7	-6.59	1.26	1.31
1	A	2079	G	C5-C6	-6.58	1.35	1.42
1	A	2809	G	C6-N1	-6.58	1.34	1.39
1	A	2903	A	N7-C5	-6.58	1.35	1.39
1	A	19	G	N7-C5	-6.58	1.35	1.39
1	A	548	A	N9-C8	6.58	1.43	1.37
1	A	581	A	C5-C6	-6.58	1.35	1.41
1	A	2715	G	C8-N7	-6.58	1.26	1.30
1	A	368	A	C6-N1	-6.58	1.30	1.35
1	A	725	A	C5-C4	-6.58	1.34	1.38
1	A	2536	G	C5-C4	-6.58	1.33	1.38
1	A	2703	C	N1-C2	-6.58	1.33	1.40
1	A	910	C	N1-C6	-6.58	1.33	1.37
1	A	2025	A	C5-C4	-6.58	1.34	1.38
1	A	2888	A	C6-N1	-6.58	1.30	1.35
1	A	626	G	N7-C5	-6.58	1.35	1.39
1	A	849	A	C6-N1	-6.58	1.30	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1181	G	N1-C2	-6.58	1.32	1.37
1	A	1260	C	C2-N3	-6.58	1.30	1.35
1	A	488	G	N1-C2	-6.58	1.32	1.37
1	A	1282	A	C5-C4	-6.58	1.34	1.38
1	A	1829	A	C5-C4	-6.58	1.34	1.38
1	A	2030	A	N7-C5	-6.58	1.35	1.39
1	A	581	A	C6-N1	-6.58	1.30	1.35
1	A	1322	G	C5-C6	-6.58	1.35	1.42
1	A	27	G	C8-N7	6.57	1.34	1.30
1	A	1257	G	C6-N1	-6.57	1.34	1.39
1	A	2096	G	N1-C2	-6.57	1.32	1.37
1	A	2288	C	N1-C6	-6.57	1.33	1.37
1	A	2666	A	N3-C4	-6.57	1.30	1.34
1	A	2745	G	N7-C5	-6.57	1.35	1.39
1	A	229	A	N9-C4	-6.57	1.33	1.37
1	A	545	G	C6-N1	-6.57	1.34	1.39
1	A	641	A	C5-C4	-6.57	1.34	1.38
1	A	2738	A	N7-C5	-6.57	1.35	1.39
1	A	207	A	N3-C4	-6.57	1.30	1.34
1	A	1208	A	C8-N7	-6.57	1.26	1.31
1	A	1375	G	C6-N1	-6.57	1.34	1.39
1	A	1806	U	N3-C4	-6.57	1.32	1.38
1	A	2297	G	C6-N1	-6.57	1.34	1.39
1	A	2871	A	N9-C4	-6.57	1.33	1.37
1	A	273	A	N9-C4	-6.57	1.33	1.37
1	A	2016	A	N7-C5	-6.57	1.35	1.39
1	A	2526	C	C2-N3	-6.57	1.30	1.35
1	A	485	A	N9-C4	-6.57	1.33	1.37
1	A	583	A	N3-C4	-6.57	1.30	1.34
1	A	809	A	N7-C5	-6.57	1.35	1.39
1	A	1349	U	N1-C2	-6.57	1.32	1.38
1	A	2841	A	N7-C5	-6.57	1.35	1.39
1	A	503	A	C8-N7	-6.56	1.26	1.31
1	A	651	A	C6-N1	-6.56	1.30	1.35
1	A	1027	A	N7-C5	-6.56	1.35	1.39
1	A	2484	U	C2-N3	-6.56	1.33	1.37
1	A	815	G	C5-C4	-6.56	1.33	1.38
1	A	823	G	C2-N3	-6.56	1.27	1.32
1	A	1785	G	C8-N7	-6.56	1.27	1.30
1	A	254	A	C8-N7	-6.56	1.26	1.31
1	A	984	G	N1-C2	-6.56	1.32	1.37
1	A	1855	G	N7-C5	-6.56	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1798	C	N1-C6	-6.56	1.33	1.37
1	A	21	A	C5-C6	-6.56	1.35	1.41
1	A	43	A	C6-N1	-6.56	1.30	1.35
1	A	185	A	N7-C5	-6.56	1.35	1.39
1	A	868	A	C6-N1	-6.56	1.30	1.35
1	A	908	A	N9-C4	6.55	1.41	1.37
2	B	74	G	C6-N1	-6.55	1.34	1.39
1	A	551	G	N1-C2	-6.55	1.32	1.37
1	A	869	G	C6-O6	-6.55	1.18	1.24
1	A	1848	A	N7-C5	-6.55	1.35	1.39
1	A	1028	G	N9-C8	-6.55	1.33	1.37
1	A	1391	A	C5-C4	-6.55	1.34	1.38
1	A	1800	A	N9-C4	-6.55	1.33	1.37
1	A	2017	C	C2-N3	-6.55	1.30	1.35
1	A	2668	A	N3-C4	6.55	1.38	1.34
1	A	1045	A	N9-C8	-6.55	1.32	1.37
1	A	963	A	C8-N7	-6.55	1.26	1.31
1	A	1711	G	C8-N7	-6.55	1.27	1.30
1	A	263	G	N9-C8	-6.54	1.33	1.37
1	A	524	A	N7-C5	-6.54	1.35	1.39
1	A	2078	A	N7-C5	-6.54	1.35	1.39
1	A	825	G	N9-C8	-6.54	1.33	1.37
1	A	2017	C	N3-C4	-6.54	1.29	1.33
1	A	855	U	C4-O4	-6.54	1.18	1.23
1	A	2285	C	C5-C6	-6.54	1.29	1.34
1	A	613	G	C8-N7	-6.54	1.27	1.30
1	A	1798	C	C4-C5	-6.54	1.37	1.43
1	A	863	G	N3-C4	-6.54	1.30	1.35
1	A	902	A	N1-C2	-6.54	1.28	1.34
1	A	1374	G	N1-C2	-6.54	1.32	1.37
1	A	1391	A	N7-C5	-6.54	1.35	1.39
1	A	1038	C	N1-C6	-6.53	1.33	1.37
1	A	1304	G	N9-C8	-6.53	1.33	1.37
1	A	1335	C	N3-C4	-6.53	1.29	1.33
1	A	1957	G	C5-C4	-6.53	1.33	1.38
1	A	2529	G	C8-N7	-6.53	1.27	1.30
1	A	1354	G	N7-C5	-6.53	1.35	1.39
1	A	560	A	C6-N1	-6.53	1.30	1.35
1	A	633	A	N7-C5	-6.53	1.35	1.39
1	A	1175	G	N1-C2	-6.53	1.32	1.37
1	A	673	G	C5-C4	-6.53	1.33	1.38
1	A	858	U	P-O5'	-6.53	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	536	A	N7-C5	-6.53	1.35	1.39
1	A	1242	A	C4'-C3'	-6.53	1.46	1.53
1	A	1740	G	C5-C4	-6.53	1.33	1.38
1	A	356	A	N7-C5	-6.52	1.35	1.39
1	A	856	U	C4-O4	-6.52	1.18	1.23
1	A	1278	G	N1-C2	-6.52	1.32	1.37
1	A	530	C	N3-C4	-6.52	1.29	1.33
1	A	2647	C	N1-C6	-6.52	1.33	1.37
1	A	251	G	C5-C4	-6.52	1.33	1.38
1	A	820	G	N1-C2	-6.52	1.32	1.37
1	A	1223	A	C5-C4	-6.52	1.34	1.38
1	A	1229	G	C5-C4	-6.52	1.33	1.38
1	A	2614	A	C5-C4	-6.52	1.34	1.38
1	A	2635	G	N1-C2	-6.52	1.32	1.37
1	A	52	A	C6-N1	-6.52	1.30	1.35
1	A	2037	G	C8-N7	-6.52	1.27	1.30
1	A	729	G	N1-C2	-6.51	1.32	1.37
1	A	812	U	C4-C5	-6.51	1.37	1.43
1	A	1861	U	C2-N3	-6.51	1.33	1.37
1	A	1263	A	N9-C8	-6.51	1.32	1.37
1	A	1664	G	C6-N1	-6.51	1.34	1.39
1	A	1838	G	C6-N1	-6.51	1.34	1.39
1	A	2648	G	N3-C4	-6.51	1.30	1.35
1	A	14	A	C8-N7	-6.51	1.26	1.31
1	A	538	G	N9-C8	-6.51	1.33	1.37
1	A	783	G	N1-C2	-6.51	1.32	1.37
1	A	1201	G	N9-C4	-6.51	1.32	1.38
1	A	1697	G	C3'-O3'	6.51	1.51	1.42
1	A	267	G	C8-N7	-6.51	1.27	1.30
1	A	1229	G	N9-C8	-6.51	1.33	1.37
1	A	1714	C	N3-C4	-6.51	1.29	1.33
1	A	1020	G	C4'-C3'	-6.51	1.46	1.53
1	A	2029	G	C2-N2	-6.51	1.28	1.34
1	A	244	A	N9-C8	-6.51	1.32	1.37
1	A	2752	A	N9-C8	-6.51	1.32	1.37
1	A	626	G	C2-N2	-6.50	1.28	1.34
1	A	2588	A	C5-C4	-6.50	1.34	1.38
1	A	2768	A	C5-C4	-6.50	1.34	1.38
1	A	242	U	C5'-C4'	6.50	1.59	1.51
1	A	343	A	C5-C4	-6.50	1.34	1.38
1	A	951	G	N7-C5	-6.50	1.35	1.39
1	A	1226	G	C6-N1	-6.50	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	708	G	N1-C2	-6.50	1.32	1.37
1	A	1173	A	C5-C6	-6.50	1.35	1.41
1	A	1243	G	C5-C4	-6.50	1.33	1.38
1	A	1252	A	C5-C6	-6.50	1.35	1.41
1	A	1832	C	C2-N3	-6.50	1.30	1.35
1	A	2308	C	N3-C4	-6.50	1.29	1.33
1	A	2652	G	C6-N1	-6.50	1.34	1.39
1	A	782	C	N3-C4	-6.50	1.29	1.33
1	A	1021	G	C6-N1	-6.50	1.35	1.39
1	A	1613	G	C8-N7	-6.50	1.27	1.30
1	A	2476	U	N1-C6	-6.50	1.32	1.38
1	A	2064	A	C6-N1	-6.50	1.31	1.35
1	A	1019	A	C6-N1	-6.50	1.31	1.35
1	A	1803	G	C5-C4	-6.50	1.33	1.38
1	A	2101	U	C2-N3	-6.50	1.33	1.37
1	A	575	G	N7-C5	-6.49	1.35	1.39
1	A	955	A	N3-C4	-6.49	1.30	1.34
1	A	2567	C	N1-C6	-6.49	1.33	1.37
1	A	2630	G	N7-C5	-6.49	1.35	1.39
1	A	2577	G	C8-N7	-6.49	1.27	1.30
1	A	667	G	C8-N7	-6.49	1.27	1.30
1	A	1471	A	N3-C4	-6.49	1.30	1.34
1	A	2672	G	C5-C4	-6.49	1.33	1.38
1	A	2614	A	N7-C5	-6.49	1.35	1.39
1	A	2058	A	N9-C4	-6.49	1.33	1.37
1	A	729	G	C6-O6	-6.48	1.18	1.24
1	A	1250	G	N1-C2	-6.48	1.32	1.37
1	A	2615	G	N1-C2	-6.48	1.32	1.37
1	A	647	G	C6-N1	-6.48	1.35	1.39
1	A	845	A	C8-N7	-6.48	1.27	1.31
1	A	1187	A	C3'-O3'	6.48	1.51	1.42
1	A	1266	G	C5-C4	-6.48	1.33	1.38
1	A	1361	G	C5-C4	-6.48	1.33	1.38
1	A	2461	A	N9-C4	-6.48	1.33	1.37
1	A	2745	G	C5-C4	-6.48	1.33	1.38
1	A	1247	G	N9-C4	-6.48	1.32	1.38
1	A	2843	A	C8-N7	-6.48	1.27	1.31
1	A	39	C	C4-C5	-6.47	1.37	1.43
1	A	558	A	C6-N6	-6.47	1.28	1.33
1	A	614	U	C4-C5	-6.47	1.37	1.43
1	A	2066	G	C8-N7	-6.47	1.27	1.30
1	A	2299	U	C2-N3	-6.47	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2651	G	N9-C8	-6.47	1.33	1.37
1	A	2713	G	N9-C8	-6.47	1.33	1.37
1	A	853	G	C6-N1	-6.47	1.35	1.39
1	A	2108	U	C2-N3	-6.47	1.33	1.37
1	A	2650	G	C5-C6	-6.47	1.35	1.42
1	A	495	A	C5-C6	-6.47	1.35	1.41
1	A	1047	G	N9-C8	-6.47	1.33	1.37
1	A	1796	A	N7-C5	-6.47	1.35	1.39
1	A	2024	A	O3'-P	6.47	1.69	1.61
1	A	2386	C	N3-C4	-6.47	1.29	1.33
1	A	415	U	C2-N3	-6.46	1.33	1.37
1	A	780	A	N7-C5	-6.46	1.35	1.39
1	A	2075	G	C5-C4	-6.46	1.33	1.38
1	A	2301	A	C6-N1	-6.46	1.31	1.35
1	A	2725	U	C2-N3	-6.46	1.33	1.37
1	A	550	A	C6-N6	-6.46	1.28	1.33
1	A	881	G	C6-N1	-6.46	1.35	1.39
1	A	986	G	N3-C4	-6.46	1.30	1.35
1	A	1044	A	N3-C4	-6.46	1.30	1.34
1	A	1417	G	C5-C4	-6.46	1.33	1.38
9	I	43	VAL	CB-CG2	-6.46	1.39	1.52
1	A	357	U	C2-N3	-6.46	1.33	1.37
1	A	1614	A	C6-N1	-6.46	1.31	1.35
1	A	2036	G	C2-N3	-6.46	1.27	1.32
1	A	629	A	C6-N6	-6.46	1.28	1.33
1	A	1830	A	C6-N1	-6.46	1.31	1.35
1	A	2472	G	P-O5'	-6.46	1.53	1.59
1	A	2758	G	N1-C2	-6.46	1.32	1.37
1	A	2838	C	N3-C4	-6.46	1.29	1.33
1	A	776	C	N1-C6	-6.46	1.33	1.37
1	A	2394	G	C2-N3	-6.46	1.27	1.32
1	A	201	C	C5-C6	-6.45	1.29	1.34
1	A	2067	U	C4-C5	-6.45	1.37	1.43
1	A	2576	G	N7-C5	-6.45	1.35	1.39
1	A	2049	U	C4-O4	-6.45	1.18	1.23
1	A	2715	G	N1-C2	-6.45	1.32	1.37
1	A	630	G	N7-C5	-6.45	1.35	1.39
1	A	1279	C	N3-C4	-6.45	1.29	1.33
1	A	2514	G	C5-C4	-6.45	1.33	1.38
1	A	251	G	N9-C8	-6.45	1.33	1.37
1	A	819	A	C6-N1	-6.44	1.31	1.35
1	A	845	A	N9-C8	-6.44	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1040	A	C8-N7	-6.44	1.27	1.31
1	A	1174	U	N1-C2	-6.44	1.32	1.38
1	A	2627	A	N7-C5	-6.44	1.35	1.39
1	A	664	G	C8-N7	-6.44	1.27	1.30
1	A	1794	C	N1-C6	-6.44	1.33	1.37
1	A	2099	G	N7-C5	-6.44	1.35	1.39
1	A	2602	C	N3-C4	-6.44	1.29	1.33
1	A	2861	U	C5-C6	-6.44	1.28	1.34
1	A	1739	G	C5-C4	-6.44	1.33	1.38
1	A	2570	G	C6-N1	-6.44	1.35	1.39
1	A	257	G	N1-C2	-6.44	1.32	1.37
1	A	808	G	N7-C5	-6.44	1.35	1.39
1	A	1028	G	P-O5'	6.43	1.66	1.59
1	A	2071	C	N3-C4	-6.43	1.29	1.33
1	A	2708	C	N1-C6	-6.43	1.33	1.37
1	A	572	C	N3-C4	-6.43	1.29	1.33
1	A	595	G	C5-C6	6.43	1.48	1.42
1	A	827	A	N7-C5	-6.43	1.35	1.39
1	A	914	G	N9-C4	-6.43	1.32	1.38
1	A	1838	G	N7-C5	-6.43	1.35	1.39
1	A	811	C	C2-N3	-6.43	1.30	1.35
1	A	1172	A	N7-C5	-6.43	1.35	1.39
1	A	1288	G	N3-C4	6.43	1.40	1.35
1	A	1307	G	C5-C4	-6.43	1.33	1.38
1	A	1379	A	N7-C5	-6.43	1.35	1.39
1	A	911	A	C6-N1	-6.43	1.31	1.35
1	A	1722	A	C5-C4	-6.43	1.34	1.38
1	A	2474	G	C6-N1	-6.43	1.35	1.39
1	A	2634	G	C5-C4	-6.43	1.33	1.38
1	A	996	G	N3-C4	-6.42	1.30	1.35
1	A	1021	G	C8-N7	-6.42	1.27	1.30
1	A	1278	G	N7-C5	-6.42	1.35	1.39
1	A	2290	C	N1-C6	-6.42	1.33	1.37
1	A	1817	C	N3-C4	-6.42	1.29	1.33
1	A	2461	A	C8-N7	-6.42	1.27	1.31
1	A	620	G	N3-C4	-6.42	1.30	1.35
1	A	708	G	C6-N1	-6.42	1.35	1.39
1	A	719	G	C6-N1	-6.42	1.35	1.39
1	A	1022	G	C2-N3	-6.42	1.27	1.32
1	A	1645	G	N1-C2	-6.42	1.32	1.37
1	A	2075	G	N1-C2	-6.42	1.32	1.37
2	B	80	G	C5-C4	-6.42	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	850	G	C6-O6	-6.42	1.18	1.24
1	A	997	G	C6-O6	-6.42	1.18	1.24
1	A	38	A	C5-C6	-6.41	1.35	1.41
1	A	1722	A	N7-C5	-6.41	1.35	1.39
1	A	2529	G	N7-C5	-6.41	1.35	1.39
1	A	1711	G	C2-N3	-6.41	1.27	1.32
1	A	2268	A	N9-C8	-6.41	1.32	1.37
1	A	1247	G	N3-C4	-6.41	1.30	1.35
1	A	2597	G	N1-C2	6.41	1.42	1.37
1	A	613	G	C2'-C1'	-6.41	1.46	1.53
1	A	650	U	N1-C6	-6.41	1.32	1.38
1	A	985	A	C6-N1	-6.41	1.31	1.35
1	A	1643	C	N1-C6	-6.41	1.33	1.37
1	A	1023	A	C2'-C1'	-6.41	1.46	1.53
1	A	2710	C	N3-C4	-6.41	1.29	1.33
1	A	1188	A	C5-C6	-6.41	1.35	1.41
1	A	1811	A	N3-C4	-6.41	1.31	1.34
1	A	2569	A	C5-C6	-6.41	1.35	1.41
1	A	1201	G	C6-N1	-6.40	1.35	1.39
1	A	2804	G	N3-C4	-6.40	1.30	1.35
1	A	669	C	C5'-C4'	6.40	1.59	1.51
1	A	1288	G	C2-N3	6.40	1.37	1.32
1	A	2030	A	N9-C4	-6.40	1.34	1.37
1	A	2586	C	C2-N3	-6.40	1.30	1.35
1	A	492	G	N9-C4	-6.40	1.32	1.38
1	A	585	C	N1-C6	-6.40	1.33	1.37
1	A	1333	A	N7-C5	-6.40	1.35	1.39
1	A	2639	C	N1-C2	-6.40	1.33	1.40
1	A	1003	A	N9-C8	-6.40	1.32	1.37
1	A	1815	C	N3-C4	-6.40	1.29	1.33
1	A	2291	C	C2-N3	-6.40	1.30	1.35
1	A	24	G	N1-C2	-6.40	1.32	1.37
1	A	1858	G	N7-C5	-6.40	1.35	1.39
1	A	2669	G	C6-N1	-6.40	1.35	1.39
1	A	18	C	C2-N3	-6.39	1.30	1.35
1	A	639	U	P-O5'	6.39	1.66	1.59
1	A	1274	G	C2-N3	6.39	1.37	1.32
1	A	726	G	N7-C5	-6.39	1.35	1.39
1	A	2036	G	C8-N7	-6.39	1.27	1.30
1	A	1842	A	N9-C8	-6.39	1.32	1.37
1	A	2062	G	C5-C6	-6.39	1.35	1.42
1	A	2389	G	N7-C5	-6.39	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	524	A	C5-C4	-6.39	1.34	1.38
1	A	1387	C	N3-C4	-6.39	1.29	1.33
1	A	622	A	P-O5'	6.39	1.66	1.59
1	A	865	A	P-O5'	6.39	1.66	1.59
1	A	1195	A	C6-N1	-6.39	1.31	1.35
1	A	1272	U	C2-N3	-6.39	1.33	1.37
1	A	1831	A	C5-C4	-6.38	1.34	1.38
1	A	2059	G	C5-C4	-6.38	1.33	1.38
1	A	2856	U	C2-N3	-6.38	1.33	1.37
1	A	2035	C	C2-N3	-6.38	1.30	1.35
1	A	2663	U	C5'-C4'	6.38	1.59	1.51
1	A	1066	G	C2-N3	6.38	1.37	1.32
1	A	1282	A	N7-C5	-6.38	1.35	1.39
1	A	563	G	C6-N1	-6.38	1.35	1.39
1	A	677	A	N3-C4	-6.38	1.31	1.34
1	A	819	A	C8-N7	-6.38	1.27	1.31
1	A	1020	G	C5-C4	-6.38	1.33	1.38
1	A	1230	G	N9-C8	-6.38	1.33	1.37
1	A	1845	U	N3-C4	-6.38	1.32	1.38
1	A	2097	G	N1-C2	-6.38	1.32	1.37
1	A	2411	A	C5-C6	-6.38	1.35	1.41
1	A	2868	G	C6-N1	-6.38	1.35	1.39
1	A	751	A	N9-C4	-6.38	1.34	1.37
1	A	586	C	N3-C4	-6.38	1.29	1.33
1	A	1175	G	C1'-N9	-6.38	1.38	1.46
1	A	1834	G	N7-C5	-6.38	1.35	1.39
1	A	544	U	C4-C5	-6.37	1.37	1.43
1	A	1239	C	C2-O2	-6.37	1.18	1.24
1	A	1400	C	N3-C4	-6.37	1.29	1.33
1	A	1829	A	N3-C4	-6.37	1.31	1.34
1	A	717	C	C2-N3	-6.37	1.30	1.35
1	A	824	A	N3-C4	-6.37	1.31	1.34
1	A	2293	A	C5-C4	-6.37	1.34	1.38
1	A	2054	G	N1-C2	-6.37	1.32	1.37
1	A	1203	U	C2-N3	-6.36	1.33	1.37
1	A	1354	G	N9-C4	-6.36	1.32	1.38
1	A	2091	C	C4-C5	-6.36	1.37	1.43
1	A	2279	G	N1-C2	-6.36	1.32	1.37
1	A	267	G	N7-C5	-6.36	1.35	1.39
1	A	1247	G	C2-N3	-6.36	1.27	1.32
1	A	2803	A	N9-C8	-6.36	1.32	1.37
1	A	1857	C	C4-C5	-6.36	1.37	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2062	G	N9-C4	-6.36	1.32	1.38
1	A	2460	A	C8-N7	-6.36	1.27	1.31
1	A	2306	G	C6-N1	-6.36	1.35	1.39
1	A	2625	A	N9-C4	-6.36	1.34	1.37
1	A	123	G	N9-C8	-6.35	1.33	1.37
1	A	1069	G	C6-N1	-6.35	1.35	1.39
1	A	1406	G	N1-C2	-6.35	1.32	1.37
1	A	912	C	C4-C5	-6.35	1.37	1.43
1	A	1008	C	N1-C6	-6.35	1.33	1.37
1	A	493	A	C2-N3	-6.35	1.27	1.33
1	A	516	A	C5-C4	-6.35	1.34	1.38
1	A	826	A	C5-C4	-6.35	1.34	1.38
1	A	1015	C	C2'-C1'	-6.35	1.46	1.53
1	A	1066	G	N7-C5	-6.35	1.35	1.39
1	A	1187	A	O3'-P	6.35	1.68	1.61
1	A	1297	G	N9-C4	6.35	1.43	1.38
1	A	2029	G	N1-C2	-6.35	1.32	1.37
1	A	2458	U	C5-C6	-6.35	1.28	1.34
1	A	2634	G	C8-N7	-6.35	1.27	1.30
1	A	373	A	N1-C2	-6.35	1.28	1.34
1	A	1260	C	N1-C2	6.35	1.46	1.40
1	A	2008	A	N3-C4	-6.35	1.31	1.34
1	A	2415	A	N7-C5	-6.35	1.35	1.39
1	A	847	A	N3-C4	-6.35	1.31	1.34
2	B	80	G	C6-N1	-6.35	1.35	1.39
1	A	702	U	N1-C2	-6.34	1.32	1.38
1	A	855	U	C2-O2	-6.34	1.16	1.22
1	A	2096	G	N7-C5	-6.34	1.35	1.39
1	A	2617	A	N7-C5	-6.34	1.35	1.39
1	A	1413	C	N3-C4	-6.34	1.29	1.33
1	A	818	U	C4-O4	-6.34	1.18	1.23
1	A	1351	C	C5-C6	-6.34	1.29	1.34
1	A	2113	U	C2-N3	-6.34	1.33	1.37
1	A	1812	A	C5-C4	-6.33	1.34	1.38
1	A	515	G	C2-N2	-6.33	1.28	1.34
1	A	833	A	N3-C4	-6.33	1.31	1.34
1	A	1717	G	N7-C5	-6.33	1.35	1.39
1	A	804	G	N7-C5	-6.33	1.35	1.39
1	A	1230	G	C6-N1	-6.33	1.35	1.39
1	A	1376	G	C6-N1	-6.33	1.35	1.39
1	A	256	C	N1-C6	-6.33	1.33	1.37
1	A	1357	G	N7-C5	-6.33	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2455	G	N1-C2	-6.33	1.32	1.37
1	A	252	C	N1-C6	-6.33	1.33	1.37
1	A	488	G	C2-N3	-6.33	1.27	1.32
1	A	610	U	C2-N3	-6.33	1.33	1.37
1	A	1657	G	C5-C4	-6.33	1.33	1.38
1	A	560	A	N9-C8	-6.33	1.32	1.37
1	A	602	G	N9-C8	-6.33	1.33	1.37
1	A	1683	U	N3-C4	-6.33	1.32	1.38
1	A	2269	G	C6-N1	-6.33	1.35	1.39
1	A	2283	G	C8-N7	-6.33	1.27	1.30
1	A	604	G	N3-C4	-6.32	1.31	1.35
1	A	614	U	C5-C6	-6.32	1.28	1.34
1	A	839	A	C8-N7	-6.32	1.27	1.31
1	A	1411	G	C6-N1	-6.32	1.35	1.39
1	A	1817	C	C4-C5	-6.32	1.37	1.43
1	A	2393	A	C5-C4	-6.32	1.34	1.38
1	A	217	G	C2-N3	-6.32	1.27	1.32
1	A	426	G	N1-C2	-6.32	1.32	1.37
1	A	2477	A	N7-C5	-6.32	1.35	1.39
1	A	2703	C	C2-O2	-6.32	1.18	1.24
1	A	2902	A	N9-C8	-6.32	1.32	1.37
1	A	543	G	C5-C4	-6.32	1.33	1.38
1	A	598	G	N9-C4	-6.32	1.32	1.38
1	A	881	G	N9-C8	-6.32	1.33	1.37
1	A	895	U	C2-N3	-6.32	1.33	1.37
1	A	1045	A	N9-C4	-6.32	1.34	1.37
1	A	1351	C	N1-C6	-6.32	1.33	1.37
2	B	97	G	C5-C4	-6.32	1.33	1.38
1	A	551	G	C8-N7	-6.32	1.27	1.30
1	A	620	G	C6-N1	6.32	1.44	1.39
1	A	2004	A	N9-C8	-6.32	1.32	1.37
1	A	2604	A	C2-N3	-6.32	1.27	1.33
1	A	878	C	N1-C6	-6.31	1.33	1.37
1	A	247	A	N9-C4	-6.31	1.34	1.37
1	A	345	C	N3-C4	-6.31	1.29	1.33
1	A	584	G	C5-C6	6.31	1.48	1.42
1	A	640	G	C4'-C3'	6.31	1.60	1.53
1	A	2088	G	C8-N7	-6.31	1.27	1.30
1	A	521	U	C4-O4	-6.31	1.18	1.23
1	A	1732	U	C2-N3	-6.31	1.33	1.37
1	A	1842	A	N9-C4	-6.31	1.34	1.37
1	A	1253	G	C5-C4	-6.31	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	345	C	C2-N3	-6.31	1.30	1.35
1	A	639	U	C2-N3	-6.31	1.33	1.37
1	A	899	U	C2-N3	-6.31	1.33	1.37
1	A	2308	C	C2-N3	-6.31	1.30	1.35
1	A	2704	A	C5-C6	-6.31	1.35	1.41
1	A	2902	A	C6-N1	-6.31	1.31	1.35
1	A	839	A	N3-C4	-6.31	1.31	1.34
1	A	2297	G	N9-C8	-6.31	1.33	1.37
1	A	582	G	C4'-C3'	6.30	1.60	1.53
1	A	1682	C	N3-C4	-6.30	1.29	1.33
1	A	1698	A	N9-C8	-6.30	1.32	1.37
1	A	2065	G	C2-N2	-6.30	1.28	1.34
1	A	2713	G	C6-N1	-6.30	1.35	1.39
1	A	209	U	N3-C4	-6.30	1.32	1.38
1	A	628	G	C6-N1	-6.30	1.35	1.39
1	A	1269	A	C8-N7	-6.30	1.27	1.31
1	A	1341	A	N9-C4	-6.30	1.34	1.37
1	A	1619	A	N9-C4	-6.30	1.34	1.37
1	A	509	G	C6-N1	-6.30	1.35	1.39
1	A	539	G	N9-C8	-6.30	1.33	1.37
1	A	730	A	N7-C5	-6.30	1.35	1.39
1	A	852	U	C2-N3	-6.30	1.33	1.37
1	A	1301	U	C5-C6	-6.30	1.28	1.34
1	A	2701	G	N3-C4	-6.30	1.31	1.35
1	A	1839	G	C2-N3	-6.29	1.27	1.32
1	A	2746	G	N3-C4	-6.29	1.31	1.35
1	A	257	G	N3-C4	-6.29	1.31	1.35
1	A	1022	G	C5-C4	-6.29	1.33	1.38
1	A	1038	C	C2-O2	-6.29	1.18	1.24
1	A	2064	A	C2-N3	-6.29	1.27	1.33
1	A	358	G	N3-C4	-6.29	1.31	1.35
1	A	2751	U	C2-N3	-6.29	1.33	1.37
1	A	706	U	N1-C6	-6.29	1.32	1.38
1	A	1375	G	N1-C2	-6.29	1.32	1.37
1	A	573	A	N9-C4	-6.29	1.34	1.37
1	A	1831	A	C6-N1	-6.29	1.31	1.35
1	A	2054	G	N7-C5	-6.29	1.35	1.39
1	A	2072	C	C4-C5	-6.29	1.38	1.43
1	A	2416	G	N3-C4	-6.29	1.31	1.35
1	A	212	C	C4-C5	-6.29	1.38	1.43
1	A	1390	A	N7-C5	-6.29	1.35	1.39
1	A	42	G	C6-N1	-6.29	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1024	A	C5-C4	-6.29	1.34	1.38
1	A	1837	A	C5-C4	-6.29	1.34	1.38
1	A	2543	G	N3-C4	-6.29	1.31	1.35
1	A	634	C	N1-C6	-6.28	1.33	1.37
1	A	1334	C	N1-C6	-6.28	1.33	1.37
1	A	1647	A	C6-N1	-6.28	1.31	1.35
1	A	1839	G	N7-C5	-6.28	1.35	1.39
1	A	2024	A	O5'-C5'	6.28	1.54	1.44
1	A	1204	G	C5-C6	-6.28	1.36	1.42
1	A	17	G	C6-O6	-6.28	1.18	1.24
1	A	426	G	C2-N3	-6.28	1.27	1.32
1	A	559	A	N7-C5	-6.28	1.35	1.39
1	A	807	U	N1-C2	-6.28	1.32	1.38
1	A	1377	U	N1-C6	-6.28	1.32	1.38
1	A	1013	U	P-O5'	-6.28	1.53	1.59
1	A	2702	A	C2-N3	-6.28	1.27	1.33
1	A	1181	G	N9-C8	-6.28	1.33	1.37
1	A	1822	C	N3-C4	-6.28	1.29	1.33
1	A	828	A	N7-C5	-6.28	1.35	1.39
1	A	1383	G	C5-C4	-6.28	1.33	1.38
1	A	1471	A	N7-C5	-6.27	1.35	1.39
1	A	269	G	N7-C5	-6.27	1.35	1.39
1	A	523	A	C5-C6	-6.27	1.35	1.41
1	A	618	A	N9-C8	-6.27	1.32	1.37
1	A	853	G	C8-N7	-6.27	1.27	1.30
1	A	1049	C	N1-C6	-6.27	1.33	1.37
1	A	1050	C	O3'-P	6.27	1.68	1.61
1	A	2792	A	C5-C6	-6.27	1.35	1.41
1	A	828	A	N9-C8	-6.27	1.32	1.37
1	A	1267	A	C5-C6	-6.27	1.35	1.41
1	A	2053	U	C2-N3	6.27	1.42	1.37
1	A	2063	C	C4-N4	-6.27	1.28	1.33
1	A	2625	A	C5-C4	-6.27	1.34	1.38
1	A	207	A	C5-C4	-6.27	1.34	1.38
1	A	979	C	C4-C5	-6.27	1.38	1.43
1	A	1226	G	N9-C4	-6.27	1.32	1.38
1	A	2027	G	N1-C2	-6.27	1.32	1.37
1	A	535	G	C6-N1	-6.27	1.35	1.39
1	A	551	G	C6-N1	-6.27	1.35	1.39
1	A	1045	A	C8-N7	-6.27	1.27	1.31
1	A	1197	C	P-O5'	6.27	1.66	1.59
1	A	73	A	N9-C4	-6.26	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	126	A	C5-C4	-6.26	1.34	1.38
1	A	496	G	N9-C8	-6.26	1.33	1.37
1	A	534	G	C5-C4	-6.26	1.33	1.38
1	A	1417	G	N9-C8	-6.26	1.33	1.37
1	A	2471	G	N7-C5	-6.26	1.35	1.39
1	A	2590	U	C2-N3	-6.26	1.33	1.37
1	A	223	G	N9-C4	6.26	1.43	1.38
1	A	854	G	N1-C2	-6.26	1.32	1.37
1	A	1013	U	C4'-C3'	-6.26	1.46	1.53
1	A	1269	A	C5-C4	-6.26	1.34	1.38
1	A	2516	G	C5-C4	-6.26	1.33	1.38
1	A	213	C	N3-C4	-6.26	1.29	1.33
1	A	641	A	N3-C4	-6.26	1.31	1.34
1	A	652	A	N9-C4	-6.26	1.34	1.37
1	A	1432	A	N9-C4	-6.26	1.34	1.37
1	A	186	C	N3-C4	-6.26	1.29	1.33
1	A	526	A	C8-N7	-6.26	1.27	1.31
1	A	1065	A	C8-N7	-6.26	1.27	1.31
1	A	1803	G	N7-C5	-6.26	1.35	1.39
1	A	2287	C	N1-C6	-6.26	1.33	1.37
1	A	2647	C	C4-C5	-6.26	1.38	1.43
1	A	818	U	C4-C5	-6.26	1.38	1.43
1	A	2643	C	C5-C6	-6.26	1.29	1.34
1	A	2645	G	C5-C6	-6.26	1.36	1.42
1	A	2642	U	N1-C2	-6.25	1.32	1.38
1	A	351	G	C6-N1	-6.25	1.35	1.39
1	A	1277	C	C4-C5	-6.25	1.38	1.43
1	A	2418	G	N9-C4	6.25	1.43	1.38
1	A	708	G	C8-N7	-6.25	1.27	1.30
1	A	1612	C	N3-C4	-6.25	1.29	1.33
1	A	1806	U	C4-C5	-6.25	1.38	1.43
1	A	2866	G	C8-N7	-6.25	1.27	1.30
1	A	2520	U	C2-O2	-6.25	1.16	1.22
1	A	647	G	N7-C5	-6.25	1.35	1.39
1	A	1815	C	C2-O2	-6.25	1.18	1.24
1	A	370	G	C5-C6	-6.25	1.36	1.42
1	A	1025	A	C6-N1	-6.24	1.31	1.35
1	A	1799	G	C5-C4	-6.24	1.33	1.38
1	A	2091	C	N1-C6	-6.24	1.33	1.37
1	A	1262	U	C2-O2	-6.24	1.16	1.22
1	A	494	U	N3-C4	-6.24	1.32	1.38
1	A	1036	C	C5-C6	-6.24	1.29	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1848	A	C6-N1	-6.24	1.31	1.35
1	A	2073	G	N9-C8	-6.24	1.33	1.37
1	A	2608	G	C2-N2	-6.24	1.28	1.34
1	A	2665	G	N7-C5	-6.24	1.35	1.39
1	A	189	G	N1-C2	-6.24	1.32	1.37
1	A	1839	G	N1-C2	-6.24	1.32	1.37
1	A	2521	G	C6-N1	-6.24	1.35	1.39
1	A	2624	G	C6-N1	-6.24	1.35	1.39
1	A	624	C	C4-N4	-6.24	1.28	1.33
1	A	843	G	N9-C8	-6.24	1.33	1.37
1	A	1834	G	C5-C4	-6.24	1.33	1.38
1	A	366	G	C5-C6	-6.24	1.36	1.42
1	A	581	A	N7-C5	-6.24	1.35	1.39
1	A	2097	G	N3-C4	-6.23	1.31	1.35
1	A	236	A	N9-C4	6.23	1.41	1.37
1	A	430	A	N9-C4	-6.23	1.34	1.37
1	A	2645	G	N9-C8	-6.23	1.33	1.37
1	A	2870	A	N7-C5	-6.23	1.35	1.39
1	A	1022	G	N1-C2	-6.23	1.32	1.37
1	A	1045	A	C6-N6	-6.23	1.28	1.33
1	A	1264	A	N1-C2	-6.23	1.28	1.34
1	A	609	U	C2-O2	-6.23	1.16	1.22
1	A	237	U	N3-C4	-6.23	1.32	1.38
1	A	208	G	N1-C2	-6.23	1.32	1.37
1	A	1803	G	C8-N7	-6.23	1.27	1.30
1	A	2858	G	N9-C8	-6.23	1.33	1.37
1	A	56	A	N7-C5	-6.22	1.35	1.39
1	A	681	G	N1-C2	-6.22	1.32	1.37
1	A	1242	A	N3-C4	-6.22	1.31	1.34
1	A	1933	G	N9-C4	-6.22	1.32	1.38
1	A	2265	G	C8-N7	-6.22	1.27	1.30
1	A	2493	C	N3-C4	-6.22	1.29	1.33
1	A	381	G	C5-C6	-6.22	1.36	1.42
1	A	705	U	C2-N3	-6.22	1.33	1.37
1	A	817	G	N7-C5	-6.22	1.35	1.39
1	A	875	G	C8-N7	-6.22	1.27	1.30
1	A	2597	G	N9-C4	-6.22	1.32	1.38
1	A	865	A	C5-C6	-6.22	1.35	1.41
1	A	2269	G	C5-C4	-6.22	1.33	1.38
1	A	55	G	C6-N1	-6.22	1.35	1.39
1	A	2751	U	N3-C4	-6.22	1.32	1.38
1	A	637	U	C2-N3	-6.22	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1234	G	C6-N1	-6.22	1.35	1.39
1	A	2756	G	C6-N1	-6.22	1.35	1.39
1	A	262	G	O3'-P	6.21	1.68	1.61
1	A	1695	G	N9-C8	-6.21	1.33	1.37
1	A	2535	G	C8-N7	-6.21	1.27	1.30
1	A	71	A	N3-C4	-6.21	1.31	1.34
1	A	1047	G	C6-N1	-6.21	1.35	1.39
1	A	2651	G	C5-C4	-6.21	1.34	1.38
1	A	195	C	C4-N4	-6.21	1.28	1.33
1	A	534	G	C5-C6	-6.21	1.36	1.42
1	A	535	G	N3-C4	-6.21	1.31	1.35
1	A	356	A	N9-C4	-6.21	1.34	1.37
1	A	1318	G	C5-C4	-6.21	1.34	1.38
1	A	116	G	N1-C2	-6.21	1.32	1.37
1	A	1308	C	C5-C6	-6.21	1.29	1.34
1	A	1806	U	C4-O4	-6.21	1.18	1.23
1	A	2415	A	C5-C4	-6.21	1.34	1.38
1	A	2462	A	C5-C4	-6.21	1.34	1.38
1	A	732	C	N1-C6	-6.20	1.33	1.37
1	A	1300	G	N1-C2	-6.20	1.32	1.37
1	A	1677	G	C6-N1	-6.20	1.35	1.39
1	A	1797	G	C2-N3	-6.20	1.27	1.32
1	A	2073	G	N1-C2	-6.20	1.32	1.37
1	A	2455	G	C5'-C4'	6.20	1.58	1.51
1	A	2666	A	N7-C5	-6.20	1.35	1.39
1	A	256	C	C2-N3	-6.20	1.30	1.35
1	A	989	A	N7-C5	-6.20	1.35	1.39
1	A	2619	G	C5-C4	-6.20	1.34	1.38
1	A	2736	G	C5-C4	-6.20	1.34	1.38
1	A	2802	A	C5-C6	-6.20	1.35	1.41
1	A	826	A	N3-C4	-6.20	1.31	1.34
1	A	2800	U	C5-C6	-6.20	1.28	1.34
1	A	806	A	N3-C4	-6.20	1.31	1.34
1	A	1078	G	C2-N3	-6.20	1.27	1.32
1	A	1287	U	C5-C6	-6.20	1.28	1.34
1	A	1681	U	N3-C4	-6.20	1.32	1.38
1	A	489	A	N3-C4	-6.19	1.31	1.34
1	A	1819	G	C5-C4	-6.19	1.34	1.38
1	A	1315	C	N3-C4	-6.19	1.29	1.33
1	A	1782	A	C5-C4	-6.19	1.34	1.38
1	A	1795	A	C5-C4	-6.19	1.34	1.38
1	A	2271	U	C2-N3	-6.19	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2622	G	N7-C5	-6.19	1.35	1.39
1	A	264	G	N3-C4	-6.19	1.31	1.35
1	A	720	A	N7-C5	-6.19	1.35	1.39
1	A	721	A	C6-N1	-6.19	1.31	1.35
1	A	2587	C	N3-C4	-6.19	1.29	1.33
1	A	2722	U	N3-C4	-6.19	1.32	1.38
1	A	19	G	C5-C6	-6.19	1.36	1.42
1	A	267	G	C6-N1	-6.19	1.35	1.39
1	A	300	G	C6-N1	-6.19	1.35	1.39
1	A	1742	A	N7-C5	-6.19	1.35	1.39
1	A	345	C	N1-C6	-6.19	1.33	1.37
1	A	2098	A	N7-C5	-6.19	1.35	1.39
1	A	2376	G	C5-C4	-6.19	1.34	1.38
1	A	2519	U	O3'-P	6.19	1.68	1.61
1	A	1300	G	C5-C4	-6.18	1.34	1.38
1	A	2746	G	N1-C2	-6.18	1.32	1.37
1	A	2274	A	C8-N7	-6.18	1.27	1.31
1	A	2473	G	C6-O6	-6.18	1.18	1.24
1	A	972	A	C6-N1	-6.18	1.31	1.35
1	A	983	G	N1-C2	-6.18	1.32	1.37
1	A	2809	G	N1-C2	-6.18	1.32	1.37
1	A	259	A	N7-C5	-6.18	1.35	1.39
1	A	724	C	C2-N3	-6.18	1.30	1.35
1	A	1841	G	C6-N1	-6.18	1.35	1.39
1	A	2097	G	N9-C4	-6.18	1.33	1.38
1	A	1854	U	C4-O4	-6.18	1.18	1.23
1	A	692	G	N9-C8	-6.18	1.33	1.37
1	A	1204	G	C5-C4	-6.18	1.34	1.38
17	Q	17	VAL	CB-CG1	-6.18	1.39	1.52
1	A	814	A	C5-C4	-6.17	1.34	1.38
1	A	1016	G	C1'-N9	6.17	1.58	1.48
1	A	1723	A	N9-C4	-6.17	1.34	1.37
1	A	1799	G	C6-N1	-6.17	1.35	1.39
1	A	545	G	C5-C4	-6.17	1.34	1.38
1	A	1255	A	N9-C4	-6.17	1.34	1.37
1	A	1788	U	C2-N3	-6.17	1.33	1.37
1	A	703	A	C5-C6	6.17	1.46	1.41
1	A	1047	G	N3-C4	6.17	1.39	1.35
1	A	2713	G	C8-N7	-6.17	1.27	1.30
1	A	2745	G	C6-N1	-6.17	1.35	1.39
1	A	177	G	C5-C6	-6.17	1.36	1.42
1	A	613	G	N1-C2	-6.17	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	53	A	N3-C4	-6.17	1.31	1.34
1	A	596	G	C6-N1	-6.17	1.35	1.39
1	A	1318	G	N1-C2	-6.17	1.32	1.37
1	A	2653	C	C1'-N1	6.17	1.58	1.48
1	A	57	C	N1-C6	-6.17	1.33	1.37
1	A	810	A	N7-C5	-6.17	1.35	1.39
1	A	2107	G	C5-C4	-6.17	1.34	1.38
1	A	36	G	O3'-P	6.16	1.68	1.61
1	A	263	G	C6-N1	-6.16	1.35	1.39
1	A	827	A	C5-C4	-6.16	1.34	1.38
1	A	870	C	N1-C6	-6.16	1.33	1.37
1	A	1711	G	N3-C4	-6.16	1.31	1.35
1	A	618	A	N3-C4	-6.16	1.31	1.34
1	A	1009	C	N3-C4	-6.16	1.29	1.33
1	A	1272	U	N3-C4	-6.16	1.32	1.38
1	A	2034	U	N3-C4	-6.16	1.32	1.38
1	A	509	G	N9-C8	-6.16	1.33	1.37
1	A	853	G	N1-C2	-6.16	1.32	1.37
1	A	814	A	N9-C8	-6.16	1.32	1.37
1	A	1189	C	N1-C6	-6.16	1.33	1.37
1	A	2418	G	C2-N2	-6.16	1.28	1.34
1	A	2893	A	C5-C4	-6.16	1.34	1.38
1	A	1710	G	C6-O6	-6.16	1.18	1.24
1	A	2306	G	N1-C2	-6.16	1.32	1.37
1	A	607	C	C2'-C1'	-6.16	1.46	1.53
1	A	636	A	N9-C4	-6.16	1.34	1.37
1	A	990	G	P-O5'	6.16	1.66	1.59
1	A	254	A	N3-C4	-6.15	1.31	1.34
1	A	1229	G	N1-C2	-6.15	1.32	1.37
1	A	1256	U	C4-O4	-6.15	1.18	1.23
1	A	1349	U	C2-N3	-6.15	1.33	1.37
1	A	2475	A	P-OP2	-6.15	1.38	1.49
1	A	2717	A	N9-C4	-6.15	1.34	1.37
1	A	1820	G	C6-N1	-6.15	1.35	1.39
1	A	2850	G	C5-C6	-6.15	1.36	1.42
1	A	2540	A	C6-N1	-6.15	1.31	1.35
1	A	645	A	N3-C4	-6.15	1.31	1.34
1	A	701	G	C6-N1	-6.15	1.35	1.39
1	A	1703	U	C2-N3	-6.15	1.33	1.37
1	A	2439	A	C5-C6	-6.15	1.35	1.41
1	A	2444	C	N3-C4	-6.15	1.29	1.33
1	A	2481	G	C3'-O3'	6.15	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1300	G	C6-O6	-6.15	1.18	1.24
1	A	1807	A	C6-N1	-6.14	1.31	1.35
1	A	1856	A	N9-C4	-6.14	1.34	1.37
1	A	2462	A	N9-C4	-6.14	1.34	1.37
1	A	1475	A	N7-C5	-6.14	1.35	1.39
1	A	1816	A	C6-N6	-6.14	1.29	1.33
1	A	2479	C	C5-C6	-6.14	1.29	1.34
1	A	28	A	N3-C4	-6.14	1.31	1.34
1	A	219	A	N7-C5	-6.14	1.35	1.39
1	A	662	G	C5-C4	-6.14	1.34	1.38
1	A	839	A	N9-C4	-6.14	1.34	1.37
1	A	987	U	C5-C6	-6.14	1.28	1.34
1	A	1244	G	C5-C4	-6.14	1.34	1.38
1	A	1741	G	N1-C2	-6.14	1.32	1.37
1	A	222	A	N7-C5	-6.14	1.35	1.39
1	A	2308	C	N1-C6	-6.14	1.33	1.37
1	A	1202	C	C2-O2	-6.13	1.19	1.24
1	A	2100	C	C2-N3	-6.13	1.30	1.35
1	A	973	A	C5-C6	-6.13	1.35	1.41
1	A	2552	G	N3-C4	-6.13	1.31	1.35
1	A	561	C	C5-C6	-6.13	1.29	1.34
1	A	956	A	N7-C5	-6.13	1.35	1.39
1	A	1055	A	C5-C4	-6.13	1.34	1.38
1	A	244	A	C5-C4	-6.13	1.34	1.38
1	A	444	C	C2-O2	-6.13	1.19	1.24
1	A	535	G	N9-C8	-6.13	1.33	1.37
1	A	1015	C	C4-N4	-6.13	1.28	1.33
1	A	1303	A	N9-C8	-6.13	1.32	1.37
1	A	1696	C	N1-C6	-6.13	1.33	1.37
1	A	2010	U	C2-N3	-6.13	1.33	1.37
1	A	2910	G	N7-C5	-6.13	1.35	1.39
1	A	508	C	C2-N3	-6.12	1.30	1.35
1	A	2844	U	C4-C5	-6.12	1.38	1.43
1	A	1055	A	C5-C6	-6.12	1.35	1.41
1	A	1171	A	N7-C5	-6.12	1.35	1.39
1	A	2900	C	C4-C5	-6.12	1.38	1.43
1	A	249	C	N1-C6	-6.12	1.33	1.37
1	A	501	C	N3-C4	-6.12	1.29	1.33
1	A	644	C	N1-C6	-6.12	1.33	1.37
1	A	1238	U	C2-N3	-6.12	1.33	1.37
1	A	1811	A	C8-N7	-6.12	1.27	1.31
1	A	421	C	C4-C5	-6.12	1.38	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1355	A	N7-C5	-6.12	1.35	1.39
1	A	2063	C	C2-N3	-6.12	1.30	1.35
1	A	1862	G	C6-N1	-6.12	1.35	1.39
1	A	2305	A	N7-C5	-6.12	1.35	1.39
1	A	53	A	N9-C8	-6.12	1.32	1.37
1	A	349	U	C4-C5	-6.12	1.38	1.43
1	A	545	G	N1-C2	-6.12	1.32	1.37
1	A	596	G	C2-N3	-6.12	1.27	1.32
1	A	2304	G	C8-N7	-6.12	1.27	1.30
1	A	253	G	N9-C8	-6.11	1.33	1.37
1	A	668	C	C4-N4	-6.11	1.28	1.33
1	A	851	C	N3-C4	-6.11	1.29	1.33
1	A	2084	G	N3-C4	-6.11	1.31	1.35
1	A	2521	G	N7-C5	-6.11	1.35	1.39
1	A	874	A	C6-N6	-6.11	1.29	1.33
1	A	2086	A	C5-C6	-6.11	1.35	1.41
1	A	2812	U	C4-C5	-6.11	1.38	1.43
1	A	734	A	C5-C4	-6.11	1.34	1.38
1	A	999	U	N1-C2	6.11	1.44	1.38
1	A	1055	A	N9-C4	-6.11	1.34	1.37
1	A	1290	G	C5-C4	-6.11	1.34	1.38
1	A	1414	G	N7-C5	-6.11	1.35	1.39
1	A	1826	G	N3-C4	-6.11	1.31	1.35
1	A	737	C	N3-C4	-6.11	1.29	1.33
1	A	1030	C	C5-C6	-6.11	1.29	1.34
1	A	1245	G	C5-C4	-6.11	1.34	1.38
1	A	1858	G	N9-C8	-6.11	1.33	1.37
1	A	2018	U	C2-N3	-6.11	1.33	1.37
1	A	629	A	C2-N3	-6.10	1.28	1.33
1	A	1345	A	N7-C5	-6.10	1.35	1.39
1	A	193	A	N1-C2	-6.10	1.28	1.34
1	A	901	G	C6-N1	-6.10	1.35	1.39
1	A	255	G	C5-C6	-6.10	1.36	1.42
1	A	2741	G	C2-N3	-6.10	1.27	1.32
1	A	428	G	N3-C4	-6.09	1.31	1.35
1	A	986	G	C5-C4	-6.09	1.34	1.38
1	A	1055	A	P-O5'	-6.09	1.53	1.59
1	A	1036	C	N3-C4	-6.09	1.29	1.33
1	A	2104	A	N9-C8	-6.09	1.32	1.37
1	A	200	A	C2-N3	-6.09	1.28	1.33
1	A	616	G	C6-N1	-6.09	1.35	1.39
1	A	709	U	C4-O4	-6.09	1.18	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	706	U	C4-C5	-6.09	1.38	1.43
1	A	894	A	C5-C6	-6.09	1.35	1.41
1	A	2105	C	N3-C4	-6.09	1.29	1.33
1	A	2030	A	C6-N1	-6.08	1.31	1.35
1	A	2509	A	C5-C6	-6.08	1.35	1.41
1	A	127	C	N3-C4	-6.08	1.29	1.33
1	A	1278	G	C2-N3	-6.08	1.27	1.32
1	A	615	A	O3'-P	6.08	1.68	1.61
1	A	639	U	N3-C4	-6.08	1.32	1.38
1	A	977	A	N1-C2	-6.08	1.28	1.34
1	A	208	G	N3-C4	-6.08	1.31	1.35
1	A	2041	A	N9-C8	-6.08	1.32	1.37
1	A	370	G	C5-C4	-6.08	1.34	1.38
1	A	1043	U	C2-N3	-6.08	1.33	1.37
1	A	2086	A	N9-C4	-6.08	1.34	1.37
1	A	2624	G	C5-C4	-6.08	1.34	1.38
1	A	378	C	N3-C4	-6.08	1.29	1.33
1	A	809	A	N3-C4	-6.08	1.31	1.34
1	A	890	G	C8-N7	-6.08	1.27	1.30
1	A	1007	U	C2-O2	-6.08	1.16	1.22
1	A	1800	A	C5-C4	-6.08	1.34	1.38
1	A	499	A	N9-C4	-6.07	1.34	1.37
1	A	788	A	C5-C4	-6.07	1.34	1.38
1	A	204	C	N3-C4	-6.07	1.29	1.33
1	A	635	G	N9-C8	-6.07	1.33	1.37
1	A	1833	C	N1-C6	-6.07	1.33	1.37
1	A	2307	G	C2-N3	-6.07	1.27	1.32
1	A	2379	A	N9-C8	-6.07	1.32	1.37
1	A	2386	C	N1-C6	-6.07	1.33	1.37
1	A	2420	U	N3-C4	-6.07	1.32	1.38
1	A	2038	U	C5-C6	-6.07	1.28	1.34
1	A	203	U	C5-C6	-6.07	1.28	1.34
1	A	654	C	N3-C4	-6.07	1.29	1.33
1	A	1055	A	N1-C2	-6.07	1.28	1.34
1	A	2099	G	C8-N7	-6.07	1.27	1.30
1	A	2741	G	N7-C5	-6.07	1.35	1.39
1	A	1273	G	N9-C4	-6.07	1.33	1.38
1	A	2078	A	C6-N1	-6.07	1.31	1.35
1	A	2663	U	P-O5'	6.07	1.65	1.59
1	A	973	A	N3-C4	-6.06	1.31	1.34
1	A	1010	G	C2-N3	-6.06	1.27	1.32
1	A	1259	U	N3-C4	-6.06	1.32	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2869	G	C5'-C4'	6.06	1.58	1.51
1	A	726	G	N9-C8	-6.06	1.33	1.37
1	A	810	A	C8-N7	-6.06	1.27	1.31
1	A	1023	A	N9-C4	6.06	1.41	1.37
1	A	1738	C	N1-C6	-6.06	1.33	1.37
1	A	475	A	N7-C5	-6.06	1.35	1.39
1	A	2716	U	N3-C4	-6.06	1.32	1.38
1	A	189	G	C6-N1	-6.06	1.35	1.39
1	A	252	C	C2-N3	-6.06	1.30	1.35
1	A	636	A	C5-C4	-6.06	1.34	1.38
1	A	843	G	N7-C5	-6.06	1.35	1.39
1	A	901	G	N9-C8	-6.06	1.33	1.37
1	A	1418	G	N1-C2	-6.06	1.32	1.37
1	A	2653	C	N3-C4	-6.06	1.29	1.33
1	A	122	G	N7-C5	-6.06	1.35	1.39
1	A	606	G	N9-C8	-6.06	1.33	1.37
1	A	648	G	N1-C2	-6.06	1.32	1.37
1	A	2849	A	N3-C4	-6.06	1.31	1.34
1	A	2627	A	C6-N1	-6.06	1.31	1.35
1	A	1292	A	C8-N7	-6.05	1.27	1.31
1	A	1820	G	N1-C2	-6.05	1.32	1.37
1	A	2099	G	N1-C2	-6.05	1.32	1.37
1	A	251	G	N1-C2	-6.05	1.32	1.37
1	A	826	A	N9-C4	-6.05	1.34	1.37
1	A	1208	A	C6-N1	-6.05	1.31	1.35
1	A	1239	C	P-O5'	-6.05	1.53	1.59
1	A	733	U	C2-N3	-6.05	1.33	1.37
1	A	853	G	C2-N3	-6.05	1.27	1.32
1	A	1614	A	N7-C5	-6.05	1.35	1.39
1	A	998	G	C2-N3	-6.05	1.27	1.32
1	A	1654	A	C5-C6	-6.05	1.35	1.41
1	A	2022	U	C2-N3	-6.05	1.33	1.37
1	A	2703	C	C2-N3	-6.05	1.30	1.35
1	A	2074	C	C4-C5	-6.05	1.38	1.43
1	A	2601	G	C6-N1	-6.05	1.35	1.39
1	A	416	G	C6-N1	-6.05	1.35	1.39
1	A	488	G	P-O5'	6.05	1.65	1.59
1	A	894	A	C8-N7	-6.05	1.27	1.31
1	A	1320	G	C5-C4	-6.05	1.34	1.38
1	A	1417	G	C6-N1	-6.05	1.35	1.39
1	A	1814	A	C6-N1	-6.05	1.31	1.35
1	A	2077	C	C2'-C1'	-6.05	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2286	G	C8-N7	-6.05	1.27	1.30
1	A	2378	G	N7-C5	-6.05	1.35	1.39
1	A	730	A	N9-C8	-6.04	1.32	1.37
1	A	849	A	C6-N6	-6.04	1.29	1.33
1	A	1708	A	C6-N1	-6.04	1.31	1.35
1	A	1752	C	N3-C4	-6.04	1.29	1.33
1	A	1286	G	C2-N3	-6.04	1.27	1.32
1	A	1329	G	C5-C4	-6.04	1.34	1.38
1	A	1365	G	N1-C2	-6.04	1.32	1.37
1	A	2594	G	C2-N3	6.04	1.37	1.32
1	A	21	A	N7-C5	-6.04	1.35	1.39
1	A	2604	A	N9-C8	-6.04	1.32	1.37
1	A	640	G	C6-N1	-6.04	1.35	1.39
1	A	1269	A	C6-N6	-6.04	1.29	1.33
1	A	118	A	C8-N7	-6.04	1.27	1.31
1	A	552	A	C5-C4	-6.04	1.34	1.38
1	A	633	A	C8-N7	-6.04	1.27	1.31
1	A	1235	C	C2-O2	-6.04	1.19	1.24
1	A	1417	G	N1-C2	-6.04	1.32	1.37
1	A	785	C	N1-C6	-6.03	1.33	1.37
1	A	1262	U	C2-N3	-6.03	1.33	1.37
1	A	1430	A	N3-C4	-6.03	1.31	1.34
1	A	848	U	C4-O4	-6.03	1.18	1.23
1	A	1191	U	N3-C4	-6.03	1.33	1.38
1	A	2004	A	C8-N7	-6.03	1.27	1.31
1	A	2068	U	C4-C5	-6.03	1.38	1.43
1	A	2367	A	C5-C4	-6.03	1.34	1.38
1	A	2701	G	N1-C2	-6.03	1.32	1.37
1	A	2743	U	C2-N3	-6.03	1.33	1.37
1	A	485	A	N7-C5	-6.03	1.35	1.39
1	A	1313	G	C5-C4	-6.03	1.34	1.38
1	A	1689	G	N1-C2	-6.03	1.32	1.37
1	A	2033	C	N1-C6	-6.03	1.33	1.37
1	A	2634	G	N7-C5	-6.03	1.35	1.39
1	A	856	U	N3-C4	-6.03	1.33	1.38
1	A	2002	G	N1-C2	-6.03	1.32	1.37
1	A	2064	A	C5'-C4'	6.03	1.58	1.51
1	A	2522	G	C5-C6	-6.03	1.36	1.42
1	A	2587	C	N1-C6	-6.03	1.33	1.37
1	A	2596	G	C6-N1	-6.03	1.35	1.39
1	A	513	G	C8-N7	-6.03	1.27	1.30
1	A	664	G	N1-C2	-6.03	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1706	U	N3-C4	-6.03	1.33	1.38
1	A	2619	G	C8-N7	-6.03	1.27	1.30
1	A	26	G	C5-C4	-6.02	1.34	1.38
1	A	534	G	C6-N1	-6.02	1.35	1.39
1	A	2605	G	N1-C2	-6.02	1.32	1.37
1	A	220	A	N3-C4	-6.02	1.31	1.34
1	A	221	G	N3-C4	-6.02	1.31	1.35
1	A	642	U	C2-O2	-6.02	1.17	1.22
1	A	1030	C	C2-O2	-6.02	1.19	1.24
1	A	1830	A	C5-C4	-6.02	1.34	1.38
1	A	775	A	C6-N1	-6.02	1.31	1.35
1	A	31	C	C2-O2	-6.02	1.19	1.24
1	A	727	G	N9-C8	-6.02	1.33	1.37
1	A	1858	G	N3-C4	-6.02	1.31	1.35
1	A	2622	G	C5-C6	-6.02	1.36	1.42
1	A	1790	G	C5-C4	-6.01	1.34	1.38
1	A	2304	G	N1-C2	-6.01	1.32	1.37
1	A	35	G	C2-N3	-6.01	1.27	1.32
1	A	1784	U	C2-N3	-6.01	1.33	1.37
1	A	1819	G	N7-C5	-6.01	1.35	1.39
1	A	495	A	N3-C4	-6.01	1.31	1.34
1	A	725	A	C6-N1	-6.01	1.31	1.35
1	A	1026	C	N3-C4	6.01	1.38	1.33
1	A	693	G	C6-N1	-6.01	1.35	1.39
1	A	1706	U	C2-O2	-6.01	1.17	1.22
1	A	1789	A	N9-C4	-6.01	1.34	1.37
1	A	554	C	N1-C2	-6.01	1.34	1.40
1	A	545	G	C2-N3	-6.01	1.27	1.32
1	A	2055	U	C2-O2	-6.01	1.17	1.22
1	A	2714	U	C2-O2	-6.01	1.17	1.22
1	A	726	G	C6-N1	-6.00	1.35	1.39
1	A	1289	A	C3'-O3'	6.00	1.50	1.42
1	A	1841	G	C5-C4	-6.00	1.34	1.38
1	A	1317	G	C6-N1	-6.00	1.35	1.39
1	A	826	A	C6-N1	-6.00	1.31	1.35
1	A	1000	G	N9-C8	-6.00	1.33	1.37
1	A	2669	G	N1-C2	-6.00	1.32	1.37
1	A	779	A	C5-C4	-6.00	1.34	1.38
1	A	837	G	C6-N1	-6.00	1.35	1.39
1	A	1801	C	C2-N3	-6.00	1.30	1.35
1	A	2850	G	N1-C2	-6.00	1.32	1.37
1	A	486	G	N3-C4	-6.00	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1821	U	C2-N3	-6.00	1.33	1.37
1	A	2011	U	C2-N3	-6.00	1.33	1.37
1	A	353	A	C5-C6	-5.99	1.35	1.41
1	A	734	A	C6-N1	-5.99	1.31	1.35
1	A	778	G	C6-N1	-5.99	1.35	1.39
1	A	1388	C	C2-N3	-5.99	1.30	1.35
1	A	2899	A	N7-C5	-5.99	1.35	1.39
1	A	40	U	N3-C4	-5.99	1.33	1.38
1	A	739	U	C4-O4	-5.99	1.18	1.23
1	A	2642	U	N1-C6	-5.99	1.32	1.38
1	A	556	U	C4-C5	-5.99	1.38	1.43
1	A	876	G	C2-N3	-5.99	1.27	1.32
1	A	1267	A	C2-N3	-5.99	1.28	1.33
1	A	1976	G	N9-C4	-5.99	1.33	1.38
1	A	2285	C	C4-C5	-5.99	1.38	1.43
1	A	2305	A	N9-C8	-5.99	1.32	1.37
1	A	126	A	N9-C8	-5.99	1.32	1.37
1	A	2719	C	N3-C4	-5.99	1.29	1.33
1	A	1743	G	C5-C4	-5.98	1.34	1.38
1	A	833	A	C5-C6	-5.98	1.35	1.41
1	A	1809	C	N3-C4	-5.98	1.29	1.33
1	A	2591	A	C6-N1	-5.98	1.31	1.35
1	A	2754	G	C5-C4	-5.98	1.34	1.38
1	A	1742	A	C6-N1	-5.98	1.31	1.35
1	A	2074	C	C2-N3	-5.98	1.30	1.35
1	A	724	C	N3-C4	-5.98	1.29	1.33
1	A	1030	C	C4-C5	-5.98	1.38	1.43
1	A	1805	U	N3-C4	-5.98	1.33	1.38
1	A	194	A	C6-N1	-5.98	1.31	1.35
1	A	1383	G	N1-C2	-5.98	1.32	1.37
1	A	2468	C	N1-C6	-5.98	1.33	1.37
1	A	774	G	N9-C8	-5.97	1.33	1.37
1	A	1473	G	N9-C8	-5.97	1.33	1.37
1	A	1842	A	C5-C4	-5.97	1.34	1.38
1	A	39	C	N1-C6	-5.97	1.33	1.37
1	A	217	G	C5-C4	-5.97	1.34	1.38
1	A	560	A	N7-C5	-5.97	1.35	1.39
1	A	1469	G	N7-C5	-5.97	1.35	1.39
2	B	77	G	C6-N1	-5.97	1.35	1.39
1	A	954	A	C5-C4	-5.97	1.34	1.38
1	A	1926	A	N7-C5	-5.97	1.35	1.39
1	A	2791	A	N3-C4	-5.97	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	190	G	C5-C4	-5.97	1.34	1.38
1	A	852	U	C4-O4	-5.97	1.18	1.23
1	A	880	A	C8-N7	-5.97	1.27	1.31
1	A	1786	A	N7-C5	-5.97	1.35	1.39
1	A	2768	A	N9-C4	-5.97	1.34	1.37
2	B	73	G	C5-C4	-5.97	1.34	1.38
1	A	725	A	C8-N7	-5.97	1.27	1.31
1	A	820	G	C5-C4	-5.97	1.34	1.38
1	A	1716	C	N1-C6	-5.97	1.33	1.37
1	A	2322	C	N1-C6	-5.97	1.33	1.37
1	A	2849	A	C6-N1	-5.97	1.31	1.35
1	A	36	G	C5-C4	-5.97	1.34	1.38
1	A	1415	A	N1-C2	-5.97	1.28	1.34
1	A	1822	C	N1-C6	-5.97	1.33	1.37
1	A	2015	C	N1-C6	-5.97	1.33	1.37
1	A	975	U	C2-O2	-5.96	1.17	1.22
1	A	1347	G	N9-C8	-5.96	1.33	1.37
1	A	1395	G	N7-C5	-5.96	1.35	1.39
1	A	2479	C	N1-C6	-5.96	1.33	1.37
1	A	1021	G	N7-C5	-5.96	1.35	1.39
1	A	1652	A	N7-C5	-5.96	1.35	1.39
1	A	1792	C	C4-C5	-5.96	1.38	1.43
1	A	15	G	C8-N7	-5.96	1.27	1.30
1	A	37	C	P-O5'	5.96	1.65	1.59
1	A	1322	G	C5-C4	-5.96	1.34	1.38
1	A	1978	U	C2-N3	-5.96	1.33	1.37
1	A	2068	U	C4-O4	-5.96	1.18	1.23
1	A	2277	G	C5-C6	-5.96	1.36	1.42
1	A	2285	C	N1-C6	-5.96	1.33	1.37
1	A	2805	A	O3'-P	5.96	1.68	1.61
1	A	2855	A	C5-C6	-5.96	1.35	1.41
1	A	1304	G	C6-N1	-5.96	1.35	1.39
1	A	1677	G	C8-N7	-5.96	1.27	1.30
1	A	2481	G	C3'-C2'	5.96	1.59	1.52
1	A	474	A	C6-N6	-5.96	1.29	1.33
1	A	1650	G	N9-C4	-5.96	1.33	1.38
1	A	2442	G	N9-C8	-5.96	1.33	1.37
1	A	2547	C	N1-C6	-5.96	1.33	1.37
1	A	2709	U	C2-N3	-5.96	1.33	1.37
1	A	513	G	C5-C6	-5.96	1.36	1.42
1	A	1257	G	C8-N7	-5.96	1.27	1.30
1	A	2665	G	N9-C8	-5.96	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	854	G	N3-C4	-5.96	1.31	1.35
1	A	984	G	C6-O6	-5.96	1.18	1.24
1	A	377	U	O3'-P	5.95	1.68	1.61
1	A	2519	U	C4'-C3'	5.95	1.59	1.53
1	A	421	C	N3-C4	-5.95	1.29	1.33
1	A	1290	G	N7-C5	-5.95	1.35	1.39
1	A	2035	C	N1-C6	-5.95	1.33	1.37
1	A	816	G	C8-N7	-5.95	1.27	1.30
1	A	2303	G	N7-C5	-5.95	1.35	1.39
1	A	2483	C	C2-O2	-5.95	1.19	1.24
1	A	1698	A	C5-C4	-5.95	1.34	1.38
1	A	2109	A	N7-C5	-5.95	1.35	1.39
1	A	2276	U	N1-C2	-5.95	1.33	1.38
1	A	2714	U	N3-C4	-5.95	1.33	1.38
1	A	2868	G	C5-C4	-5.95	1.34	1.38
1	A	497	U	N1-C2	-5.95	1.33	1.38
1	A	1613	G	N7-C5	-5.95	1.35	1.39
1	A	1742	A	N9-C8	-5.95	1.32	1.37
1	A	23	G	N3-C4	-5.95	1.31	1.35
1	A	855	U	N3-C4	-5.95	1.33	1.38
1	A	872	U	C5-C6	-5.95	1.28	1.34
1	A	977	A	N9-C4	-5.95	1.34	1.37
1	A	2019	G	N1-C2	-5.95	1.32	1.37
1	A	2319	U	C4-C5	-5.95	1.38	1.43
1	A	2850	G	C2-N3	-5.95	1.27	1.32
1	A	1054	A	C5-C6	-5.94	1.35	1.41
1	A	1746	G	C6-N1	-5.94	1.35	1.39
1	A	1819	G	N9-C8	-5.94	1.33	1.37
1	A	2249	G	N7-C5	-5.94	1.35	1.39
1	A	2389	G	N1-C2	-5.94	1.32	1.37
1	A	26	G	C6-O6	-5.94	1.18	1.24
1	A	878	C	C2-N3	-5.94	1.30	1.35
1	A	2024	A	C4'-C3'	5.94	1.59	1.53
1	A	425	G	N9-C4	-5.94	1.33	1.38
1	A	907	G	C2-N3	5.94	1.37	1.32
1	A	1308	C	N1-C6	-5.94	1.33	1.37
1	A	1208	A	N9-C8	-5.94	1.33	1.37
1	A	1363	U	C4-C5	-5.94	1.38	1.43
1	A	1686	G	N1-C2	-5.94	1.33	1.37
1	A	2482	G	C2'-C1'	-5.94	1.46	1.53
1	A	58	G	N9-C8	-5.93	1.33	1.37
1	A	802	G	C2-N3	-5.93	1.28	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1663	G	C5-C4	-5.93	1.34	1.38
1	A	2042	A	C5-C6	-5.93	1.35	1.41
1	A	2312	C	C4-C5	-5.93	1.38	1.43
1	A	2542	C	N1-C6	-5.93	1.33	1.37
1	A	56	A	N3-C4	-5.93	1.31	1.34
1	A	832	C	C5-C6	-5.93	1.29	1.34
1	A	853	G	N9-C8	-5.93	1.33	1.37
1	A	1710	G	C8-N7	-5.93	1.27	1.30
1	A	2040	A	N9-C8	-5.93	1.33	1.37
1	A	1850	G	N9-C8	-5.93	1.33	1.37
1	A	2229	C	C4-C5	-5.93	1.38	1.43
1	A	2355	A	N7-C5	-5.93	1.35	1.39
1	A	2494	C	N3-C4	-5.93	1.29	1.33
1	A	2700	G	C6-N1	-5.93	1.35	1.39
1	A	2733	A	C5-C6	-5.93	1.35	1.41
1	A	94	A	N9-C4	-5.92	1.34	1.37
1	A	538	G	N3-C4	-5.92	1.31	1.35
1	A	180	G	N1-C2	-5.92	1.33	1.37
1	A	782	C	C4-C5	-5.92	1.38	1.43
1	A	2061	U	P-O5'	5.92	1.65	1.59
1	A	2096	G	C8-N7	-5.92	1.27	1.30
1	A	2292	U	N1-C2	-5.92	1.33	1.38
1	A	521	U	C4-C5	-5.92	1.38	1.43
1	A	709	U	C2-O2	-5.92	1.17	1.22
1	A	823	G	C8-N7	-5.92	1.27	1.30
1	A	2364	G	C4'-C3'	5.92	1.59	1.53
1	A	2745	G	N1-C2	-5.92	1.33	1.37
1	A	1375	G	N7-C5	-5.92	1.35	1.39
1	A	1739	G	C2-N3	-5.92	1.28	1.32
1	A	2659	A	C5-C4	-5.92	1.34	1.38
1	A	2747	U	C2-N3	-5.92	1.33	1.37
1	A	2851	G	C6-N1	-5.92	1.35	1.39
1	A	255	G	C2-N3	-5.92	1.28	1.32
1	A	1377	U	C2-N3	-5.92	1.33	1.37
1	A	1848	A	N9-C4	-5.92	1.34	1.37
1	A	2593	A	C3'-O3'	5.92	1.50	1.42
1	A	468	A	N3-C4	-5.92	1.31	1.34
1	A	842	U	C2-N3	-5.92	1.33	1.37
1	A	958	U	N1-C2	5.92	1.43	1.38
1	A	2535	G	N1-C2	-5.92	1.33	1.37
1	A	2846	A	N9-C8	-5.92	1.33	1.37
1	A	1781	C	N3-C4	-5.91	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1817	C	N1-C2	-5.91	1.34	1.40
1	A	199	A	N7-C5	-5.91	1.35	1.39
1	A	1046	G	C6-N1	-5.91	1.35	1.39
1	A	1336	G	C5-C4	-5.91	1.34	1.38
1	A	1390	A	N9-C8	-5.91	1.33	1.37
1	A	1674	U	C2-N3	-5.91	1.33	1.37
1	A	2642	U	P-O5'	-5.91	1.53	1.59
1	A	520	G	N1-C2	-5.91	1.33	1.37
1	A	695	C	C2-N3	-5.91	1.31	1.35
1	A	733	U	N3-C4	-5.91	1.33	1.38
1	A	1318	G	N7-C5	-5.91	1.35	1.39
1	A	1856	A	C5-C4	-5.91	1.34	1.38
1	A	2513	G	C6-N1	-5.91	1.35	1.39
1	A	19	G	N3-C4	-5.91	1.31	1.35
1	A	120	G	C6-N1	-5.91	1.35	1.39
1	A	726	G	N9-C4	-5.91	1.33	1.38
1	A	1003	A	C2'-C1'	-5.91	1.46	1.53
1	A	2887	G	C3'-O3'	5.91	1.50	1.42
1	A	16	G	N3-C4	-5.90	1.31	1.35
1	A	478	A	N7-C5	-5.90	1.35	1.39
1	A	1046	G	C5-C6	-5.90	1.36	1.42
1	A	2052	C	C4-N4	-5.90	1.28	1.33
1	A	579	U	C2-O2	-5.90	1.17	1.22
1	A	620	G	C5-C6	-5.90	1.36	1.42
1	A	706	U	C5-C6	-5.90	1.28	1.34
1	A	1348	U	C2-N3	-5.90	1.33	1.37
1	A	2300	A	C8-N7	-5.90	1.27	1.31
1	A	2326	G	C8-N7	-5.90	1.27	1.30
1	A	2707	C	C2-N3	-5.90	1.31	1.35
1	A	67	G	C6-N1	-5.90	1.35	1.39
1	A	789	C	N1-C6	-5.90	1.33	1.37
1	A	914	G	C5-C6	-5.90	1.36	1.42
1	A	28	A	C2-N3	-5.90	1.28	1.33
1	A	997	G	C8-N7	-5.90	1.27	1.30
1	A	2861	U	C2-N3	-5.90	1.33	1.37
1	A	378	C	C5-C6	-5.90	1.29	1.34
1	A	1848	A	N9-C8	-5.90	1.33	1.37
1	A	2515	A	C5-C4	-5.90	1.34	1.38
1	A	822	G	N9-C8	-5.90	1.33	1.37
1	A	200	A	C6-N1	-5.89	1.31	1.35
1	A	585	C	N3-C4	-5.89	1.29	1.33
1	A	813	G	C2-N3	-5.89	1.28	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	851	C	C4-C5	-5.89	1.38	1.43
1	A	1207	G	C5-C4	-5.89	1.34	1.38
1	A	1434	U	N3-C4	-5.89	1.33	1.38
1	A	1802	U	N3-C4	-5.89	1.33	1.38
1	A	2799	C	C2-N3	-5.89	1.31	1.35
1	A	2568	A	C6-N6	-5.89	1.29	1.33
1	A	94	A	C6-N6	-5.89	1.29	1.33
1	A	540	G	N3-C4	-5.89	1.31	1.35
1	A	1169	G	N3-C4	-5.89	1.31	1.35
1	A	1612	C	N1-C6	-5.89	1.33	1.37
1	A	1781	C	N1-C6	-5.89	1.33	1.37
1	A	2513	G	N9-C8	-5.89	1.33	1.37
1	A	271	C	N3-C4	-5.89	1.29	1.33
1	A	844	G	N1-C2	-5.89	1.33	1.37
1	A	2605	G	N3-C4	-5.89	1.31	1.35
1	A	865	A	N3-C4	-5.89	1.31	1.34
1	A	1255	A	C5-C4	-5.89	1.34	1.38
1	A	1618	A	C5-C4	-5.89	1.34	1.38
1	A	303	G	N9-C4	-5.88	1.33	1.38
1	A	1710	G	N9-C8	-5.88	1.33	1.37
1	A	2605	G	N9-C4	-5.88	1.33	1.38
1	A	510	U	N3-C4	-5.88	1.33	1.38
1	A	1274	G	N1-C2	-5.88	1.33	1.37
1	A	2307	G	N1-C2	-5.88	1.33	1.37
1	A	465	C	N3-C4	-5.88	1.29	1.33
1	A	1844	G	C8-N7	-5.88	1.27	1.30
1	A	2042	A	C8-N7	-5.88	1.27	1.31
1	A	2062	G	C5-C4	-5.88	1.34	1.38
1	A	30	G	C5-C6	-5.88	1.36	1.42
1	A	1721	A	C6-N1	-5.88	1.31	1.35
1	A	1730	C	N3-C4	-5.88	1.29	1.33
1	A	2372	G	C6-N1	-5.88	1.35	1.39
16	P	89	ARG	C-N	-5.88	1.20	1.34
1	A	122	G	N1-C2	-5.88	1.33	1.37
1	A	1694	A	C6-N1	-5.88	1.31	1.35
1	A	1783	G	N1-C2	-5.88	1.33	1.37
1	A	2108	U	N3-C4	-5.88	1.33	1.38
1	A	2277	G	N7-C5	-5.88	1.35	1.39
1	A	2434	A	N3-C4	-5.88	1.31	1.34
1	A	236	A	C6-N1	-5.88	1.31	1.35
1	A	529	A	N9-C4	5.88	1.41	1.37
1	A	677	A	N7-C5	-5.88	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2651	G	N7-C5	-5.88	1.35	1.39
1	A	734	A	C8-N7	-5.87	1.27	1.31
1	A	847	A	C6-N1	-5.87	1.31	1.35
1	A	1849	G	N7-C5	-5.87	1.35	1.39
1	A	1855	G	C5-C4	-5.87	1.34	1.38
1	A	2303	G	C6-N1	-5.87	1.35	1.39
1	A	659	A	C5-C6	-5.87	1.35	1.41
1	A	701	G	C5-C4	-5.87	1.34	1.38
1	A	2472	G	C2'-C1'	-5.87	1.46	1.53
1	A	545	G	N9-C8	-5.87	1.33	1.37
1	A	554	C	C4-N4	-5.87	1.28	1.33
1	A	877	G	C8-N7	-5.87	1.27	1.30
1	A	488	G	C5-C4	-5.87	1.34	1.38
1	A	570	U	N3-C4	-5.87	1.33	1.38
1	A	781	C	N3-C4	-5.87	1.29	1.33
1	A	1188	A	C4'-C3'	5.87	1.59	1.53
1	A	2277	G	N3-C4	-5.87	1.31	1.35
1	A	560	A	N9-C4	-5.87	1.34	1.37
1	A	1316	G	N7-C5	-5.87	1.35	1.39
1	A	1731	G	C6-N1	-5.87	1.35	1.39
1	A	1810	A	C5-C4	-5.87	1.34	1.38
1	A	257	G	C6-N1	-5.86	1.35	1.39
1	A	476	A	C6-N1	-5.86	1.31	1.35
1	A	984	G	N9-C8	-5.86	1.33	1.37
1	A	2735	G	N1-C2	-5.86	1.33	1.37
1	A	2749	G	N3-C4	-5.86	1.31	1.35
1	A	115	C	C2-N3	-5.86	1.31	1.35
1	A	1033	G	C6-O6	-5.86	1.18	1.24
1	A	1246	C	N1-C6	-5.86	1.33	1.37
1	A	1306	A	N9-C4	-5.86	1.34	1.37
1	A	2042	A	N7-C5	-5.86	1.35	1.39
1	A	2102	U	C5-C6	-5.86	1.28	1.34
1	A	2412	C	N3-C4	-5.86	1.29	1.33
1	A	532	C	N3-C4	-5.86	1.29	1.33
1	A	680	C	N3-C4	-5.86	1.29	1.33
1	A	2843	A	N9-C8	-5.86	1.33	1.37
1	A	638	U	C5-C6	-5.86	1.28	1.34
1	A	858	U	C5'-C4'	-5.86	1.44	1.51
1	A	1031	C	C2-N3	-5.86	1.31	1.35
1	A	2844	U	N3-C4	-5.86	1.33	1.38
1	A	212	C	N3-C4	-5.86	1.29	1.33
1	A	1198	G	C2-N3	-5.86	1.28	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2288	C	N3-C4	-5.86	1.29	1.33
1	A	2306	G	N9-C8	-5.86	1.33	1.37
1	A	2576	G	N1-C2	-5.86	1.33	1.37
1	A	738	U	C2-N3	-5.85	1.33	1.37
1	A	1869	G	C5-C4	-5.85	1.34	1.38
1	A	2259	C	N3-C4	-5.85	1.29	1.33
1	A	776	C	C4-C5	-5.85	1.38	1.43
1	A	805	G	C6-N1	-5.85	1.35	1.39
1	A	2270	U	C4-O4	-5.85	1.19	1.23
1	A	2325	A	N7-C5	-5.85	1.35	1.39
1	A	2652	G	O3'-P	5.85	1.68	1.61
1	A	963	A	N3-C4	-5.85	1.31	1.34
1	A	21	A	N9-C4	-5.85	1.34	1.37
1	A	1314	A	C5-C4	-5.85	1.34	1.38
1	A	840	C	C4-C5	-5.85	1.38	1.43
1	A	1189	C	N3-C4	-5.85	1.29	1.33
1	A	2848	G	C5-C4	-5.85	1.34	1.38
1	A	2869	G	C5-C6	-5.85	1.36	1.42
1	A	258	A	N7-C5	-5.85	1.35	1.39
1	A	1718	G	C8-N7	-5.85	1.27	1.30
1	A	592	A	C5-C4	-5.84	1.34	1.38
1	A	675	G	N1-C2	-5.84	1.33	1.37
1	A	780	A	C8-N7	-5.84	1.27	1.31
1	A	874	A	C5-C6	-5.84	1.35	1.41
1	A	2083	G	C2-N2	-5.84	1.28	1.34
1	A	601	G	N1-C2	-5.84	1.33	1.37
1	A	602	G	N7-C5	-5.84	1.35	1.39
1	A	633	A	N3-C4	5.84	1.38	1.34
1	A	1706	U	C5-C6	-5.84	1.28	1.34
1	A	2005	A	C5-C4	-5.84	1.34	1.38
1	A	2700	G	N1-C2	-5.84	1.33	1.37
2	B	96	A	C5-C4	-5.84	1.34	1.38
1	A	846	G	N9-C8	-5.84	1.33	1.37
1	A	1286	G	C2'-C1'	-5.84	1.47	1.53
1	A	1399	C	N3-C4	-5.84	1.29	1.33
1	A	1723	A	C6-N1	-5.84	1.31	1.35
1	A	2295	A	N9-C4	-5.84	1.34	1.37
1	A	2368	G	C2-N3	-5.84	1.28	1.32
1	A	1791	G	N9-C4	-5.84	1.33	1.38
1	A	1810	A	N9-C8	-5.84	1.33	1.37
1	A	2482	G	C2-N3	-5.84	1.28	1.32
1	A	54	G	C6-N1	-5.83	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	818	U	N3-C4	-5.83	1.33	1.38
1	A	2039	G	N1-C2	-5.83	1.33	1.37
1	A	2749	G	C6-N1	-5.83	1.35	1.39
2	B	77	G	N7-C5	-5.83	1.35	1.39
1	A	616	G	N7-C5	-5.83	1.35	1.39
1	A	1182	G	C5-C6	-5.83	1.36	1.42
1	A	1817	C	C2-O2	-5.83	1.19	1.24
1	A	2093	C	N1-C6	5.83	1.40	1.37
1	A	2538	U	C4-O4	-5.83	1.19	1.23
1	A	2605	G	C6-O6	-5.83	1.19	1.24
1	A	2649	U	C5-C6	-5.83	1.28	1.34
1	A	538	G	N1-C2	-5.83	1.33	1.37
1	A	636	A	N3-C4	-5.83	1.31	1.34
1	A	988	C	C2-O2	-5.83	1.19	1.24
1	A	2038	U	C4'-C3'	-5.83	1.46	1.52
1	A	1202	C	N3-C4	-5.83	1.29	1.33
1	A	1255	A	N7-C5	-5.83	1.35	1.39
1	A	1302	G	C8-N7	-5.83	1.27	1.30
1	A	1599	G	N3-C4	-5.83	1.31	1.35
1	A	1820	G	C5-C4	-5.83	1.34	1.38
1	A	2304	G	N9-C8	-5.83	1.33	1.37
1	A	237	U	C4'-C3'	-5.83	1.46	1.52
1	A	377	U	C3'-O3'	5.83	1.50	1.42
1	A	1238	U	C2-O2	-5.83	1.17	1.22
1	A	2099	G	N9-C8	-5.83	1.33	1.37
1	A	1298	G	C6-N1	-5.82	1.35	1.39
1	A	1345	A	N9-C8	-5.82	1.33	1.37
1	A	2352	G	N3-C4	-5.82	1.31	1.35
1	A	2495	A	N7-C5	-5.82	1.35	1.39
1	A	2535	G	C6-N1	-5.82	1.35	1.39
1	A	2591	A	N3-C4	-5.82	1.31	1.34
1	A	496	G	C2-N3	-5.82	1.28	1.32
1	A	1186	A	N9-C4	5.82	1.41	1.37
1	A	1704	C	N3-C4	-5.82	1.29	1.33
1	A	2098	A	C6-N1	-5.82	1.31	1.35
1	A	2473	G	C6-N1	-5.82	1.35	1.39
1	A	1004	A	C4'-C3'	-5.82	1.46	1.52
1	A	66	C	N3-C4	-5.82	1.29	1.33
1	A	263	G	N9-C4	-5.82	1.33	1.38
1	A	556	U	C2-N3	-5.82	1.33	1.37
1	A	1714	C	C2-N3	-5.82	1.31	1.35
1	A	1744	A	C5-C4	-5.82	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2548	C	N1-C6	-5.82	1.33	1.37
1	A	2418	G	C6-N1	-5.82	1.35	1.39
1	A	576	U	N3-C4	-5.82	1.33	1.38
1	A	1614	A	N9-C4	-5.82	1.34	1.37
1	A	1718	G	N7-C5	-5.82	1.35	1.39
1	A	2064	A	N3-C4	-5.82	1.31	1.34
1	A	1013	U	C4-C5	-5.81	1.38	1.43
1	A	2520	U	C4-O4	-5.81	1.19	1.23
1	A	254	A	N9-C4	-5.81	1.34	1.37
1	A	2509	A	N3-C4	-5.81	1.31	1.34
1	A	2648	G	N7-C5	-5.81	1.35	1.39
1	A	1181	G	C6-O6	-5.81	1.19	1.24
1	A	1353	A	N3-C4	-5.81	1.31	1.34
1	A	1392	G	C8-N7	-5.81	1.27	1.30
1	A	1656	C	N3-C4	-5.81	1.29	1.33
1	A	2726	C	C5-C6	-5.81	1.29	1.34
1	A	876	G	N9-C8	-5.81	1.33	1.37
1	A	1257	G	N1-C2	-5.81	1.33	1.37
1	A	1842	A	N7-C5	-5.81	1.35	1.39
1	A	2567	C	C2-O2	-5.81	1.19	1.24
1	A	825	G	C5-C6	-5.81	1.36	1.42
1	A	1333	A	C5-C4	-5.81	1.34	1.38
1	A	1347	G	N7-C5	-5.81	1.35	1.39
1	A	1368	C	C5-C6	-5.81	1.29	1.34
1	A	2550	G	C2-N3	5.81	1.37	1.32
1	A	2720	A	N7-C5	-5.81	1.35	1.39
1	A	2841	A	N3-C4	-5.81	1.31	1.34
15	O	45	TYR	CD2-CE2	-5.81	1.30	1.39
37	g	132	GLY	C-O	-5.81	1.14	1.23
1	A	616	G	C8-N7	-5.80	1.27	1.30
1	A	2000	G	N9-C8	-5.80	1.33	1.37
1	A	2864	A	N9-C4	-5.80	1.34	1.37
1	A	684	U	C2-N3	-5.80	1.33	1.37
1	A	1848	A	N3-C4	-5.80	1.31	1.34
1	A	55	G	C8-N7	-5.80	1.27	1.30
1	A	571	A	C6-N6	-5.80	1.29	1.33
1	A	652	A	N3-C4	-5.80	1.31	1.34
1	A	2536	G	C6-N1	-5.80	1.35	1.39
2	B	77	G	N3-C4	-5.80	1.31	1.35
1	A	901	G	C5-C4	-5.80	1.34	1.38
1	A	983	G	C6-O6	-5.80	1.19	1.24
1	A	1278	G	C5-C4	-5.80	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1417	G	C8-N7	-5.80	1.27	1.30
1	A	1667	G	C5-C4	-5.80	1.34	1.38
1	A	2452	A	C5-C6	-5.80	1.35	1.41
1	A	2481	G	N1-C2	-5.80	1.33	1.37
1	A	545	G	N7-C5	-5.80	1.35	1.39
1	A	1355	A	C5-C4	-5.80	1.34	1.38
1	A	2572	G	N3-C4	-5.80	1.31	1.35
1	A	2849	A	C5-C4	-5.80	1.34	1.38
1	A	505	U	C4-O4	-5.80	1.19	1.23
1	A	236	A	N7-C5	-5.79	1.35	1.39
1	A	245	G	N7-C5	-5.79	1.35	1.39
1	A	820	G	N7-C5	-5.79	1.35	1.39
1	A	1226	G	C8-N7	-5.79	1.27	1.30
1	A	2890	C	C2-N3	-5.79	1.31	1.35
1	A	526	A	C6-N6	-5.79	1.29	1.33
1	A	724	C	C5-C6	-5.79	1.29	1.34
1	A	1343	U	C2-N3	-5.79	1.33	1.37
1	A	1733	A	C5-C4	-5.79	1.34	1.38
1	A	2298	G	C5-C4	-5.79	1.34	1.38
1	A	2454	C	C1'-N1	5.79	1.57	1.48
1	A	263	G	C5-C6	-5.79	1.36	1.42
1	A	702	U	N1-C6	-5.79	1.32	1.38
1	A	872	U	C5'-C4'	5.79	1.58	1.51
1	A	1202	C	C4-N4	-5.79	1.28	1.33
1	A	1824	C	C4-C5	-5.79	1.38	1.43
1	A	1844	G	N7-C5	-5.79	1.35	1.39
1	A	2854	A	C5-C4	-5.79	1.34	1.38
1	A	23	G	C6-O6	-5.79	1.19	1.24
1	A	649	U	C4-C5	-5.79	1.38	1.43
1	A	2721	G	C6-N1	-5.79	1.35	1.39
1	A	880	A	C5-C4	-5.79	1.34	1.38
1	A	2022	U	C2-O2	-5.79	1.17	1.22
1	A	2350	G	C6-N1	-5.79	1.35	1.39
1	A	2623	U	C2-N3	-5.79	1.33	1.37
1	A	1270	U	N1-C6	-5.79	1.32	1.38
1	A	28	A	N1-C2	-5.79	1.29	1.34
1	A	543	G	C2-N3	-5.79	1.28	1.32
1	A	2297	G	N3-C4	-5.79	1.31	1.35
1	A	2303	G	N9-C8	-5.79	1.33	1.37
1	A	2496	A	C6-N6	-5.79	1.29	1.33
1	A	713	A	N3-C4	-5.78	1.31	1.34
1	A	1812	A	N3-C4	-5.78	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2267	C	N3-C4	-5.78	1.29	1.33
1	A	2607	U	N3-C4	-5.78	1.33	1.38
1	A	201	C	O3'-P	-5.78	1.54	1.61
1	A	601	G	C2-N3	-5.78	1.28	1.32
1	A	664	G	N7-C5	-5.78	1.35	1.39
1	A	2384	U	C2-N3	-5.78	1.33	1.37
1	A	248	G	N3-C4	-5.78	1.31	1.35
1	A	1432	A	N3-C4	-5.78	1.31	1.34
1	A	2041	A	C8-N7	-5.78	1.27	1.31
1	A	90	A	N9-C4	5.78	1.41	1.37
1	A	150	A	N3-C4	5.78	1.38	1.34
1	A	2416	G	C5-C4	-5.78	1.34	1.38
1	A	372	A	N7-C5	-5.78	1.35	1.39
1	A	818	U	C5-C6	-5.78	1.28	1.34
1	A	828	A	C8-N7	-5.78	1.27	1.31
1	A	1695	G	C5-C4	-5.78	1.34	1.38
1	A	2070	C	C4-C5	-5.78	1.38	1.43
1	A	2537	C	C2-N3	-5.78	1.31	1.35
1	A	909	G	C8-N7	-5.77	1.27	1.30
1	A	2708	C	C2-N3	-5.77	1.31	1.35
1	A	581	A	C8-N7	-5.77	1.27	1.31
1	A	640	G	O5'-C5'	5.77	1.53	1.44
1	A	812	U	C4-O4	-5.77	1.19	1.23
1	A	844	G	N3-C4	-5.77	1.31	1.35
1	A	2544	C	C5-C6	-5.77	1.29	1.34
1	A	2726	C	N1-C6	-5.77	1.33	1.37
1	A	2794	C	N1-C6	-5.77	1.33	1.37
1	A	506	A	C6-N1	-5.77	1.31	1.35
1	A	633	A	C5-C4	5.77	1.42	1.38
1	A	962	A	N7-C5	-5.77	1.35	1.39
1	A	1028	G	C8-N7	-5.77	1.27	1.30
1	A	1180	G	C2-N3	5.77	1.37	1.32
1	A	1302	G	N7-C5	-5.77	1.35	1.39
1	A	1710	G	N1-C2	-5.77	1.33	1.37
1	A	67	G	C5-C4	-5.77	1.34	1.38
1	A	366	G	N9-C4	-5.77	1.33	1.38
1	A	489	A	C6-N1	-5.77	1.31	1.35
1	A	1181	G	N7-C5	-5.77	1.35	1.39
1	A	1315	C	C2-N3	-5.77	1.31	1.35
1	A	1795	A	N3-C4	-5.77	1.31	1.34
1	A	2117	A	N9-C4	-5.77	1.34	1.37
1	A	2419	A	C6-N1	-5.77	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2737	C	C4-C5	-5.77	1.38	1.43
1	A	58	G	C5-C4	-5.77	1.34	1.38
1	A	632	U	P-O5'	-5.77	1.53	1.59
1	A	820	G	C2-N3	-5.77	1.28	1.32
1	A	2472	G	C5'-C4'	-5.77	1.44	1.51
1	A	2719	C	C4-C5	-5.77	1.38	1.43
1	A	2007	G	C6-N1	-5.76	1.35	1.39
1	A	623	C	C2-O2	-5.76	1.19	1.24
1	A	1175	G	C6-O6	-5.76	1.19	1.24
1	A	1815	C	N1-C6	-5.76	1.33	1.37
1	A	2039	G	C5-C4	-5.76	1.34	1.38
1	A	2279	G	C6-N1	-5.76	1.35	1.39
1	A	470	G	C5-C4	-5.76	1.34	1.38
1	A	779	A	N9-C8	-5.76	1.33	1.37
1	A	1029	C	N1-C6	-5.76	1.33	1.37
1	A	1846	A	N9-C4	-5.76	1.34	1.37
1	A	2298	G	N1-C2	-5.76	1.33	1.37
1	A	2362	A	C5-C6	-5.76	1.35	1.41
1	A	2888	A	N3-C4	-5.76	1.31	1.34
1	A	201	C	N3-C4	-5.76	1.29	1.33
1	A	437	A	N7-C5	-5.76	1.35	1.39
1	A	726	G	C5-C4	-5.76	1.34	1.38
1	A	878	C	C5-C6	-5.76	1.29	1.34
1	A	562	C	P-O5'	-5.76	1.53	1.59
1	A	1615	G	N7-C5	-5.76	1.35	1.39
1	A	1747	G	C5-C4	-5.76	1.34	1.38
1	A	199	A	N9-C8	-5.76	1.33	1.37
1	A	221	G	C6-N1	-5.76	1.35	1.39
1	A	365	A	C5-C4	-5.76	1.34	1.38
1	A	1335	C	N1-C6	-5.76	1.33	1.37
1	A	1346	G	N7-C5	-5.76	1.35	1.39
1	A	1350	U	N3-C4	-5.76	1.33	1.38
1	A	1791	G	C6-N1	-5.76	1.35	1.39
1	A	2007	G	C5-C4	-5.76	1.34	1.38
1	A	2266	G	C5-C4	-5.76	1.34	1.38
1	A	2419	A	C5'-C4'	5.76	1.58	1.51
1	A	2421	C	C5-C6	-5.76	1.29	1.34
1	A	836	C	C2-N3	-5.75	1.31	1.35
1	A	1842	A	C6-N1	-5.75	1.31	1.35
1	A	2073	G	N7-C5	-5.75	1.35	1.39
1	A	2257	G	C5-C4	-5.75	1.34	1.38
1	A	2368	G	N7-C5	-5.75	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	520	G	C5-C6	-5.75	1.36	1.42
1	A	1932	C	N3-C4	-5.75	1.29	1.33
1	A	1294	G	N9-C8	-5.75	1.33	1.37
1	A	2484	U	N3-C4	-5.75	1.33	1.38
1	A	1044	A	C6-N6	-5.75	1.29	1.33
1	A	490	C	N3-C4	-5.75	1.29	1.33
1	A	1653	A	N9-C4	-5.75	1.34	1.37
1	A	1857	C	N1-C6	-5.75	1.33	1.37
1	A	2364	G	C6-N1	-5.75	1.35	1.39
1	A	512	A	C5-C6	-5.75	1.35	1.41
1	A	858	U	C4-C5	-5.75	1.38	1.43
1	A	1744	A	C8-N7	-5.75	1.27	1.31
1	A	247	A	C5-C4	-5.75	1.34	1.38
1	A	1849	G	C5-C4	-5.75	1.34	1.38
1	A	565	G	N9-C8	-5.74	1.33	1.37
1	A	612	U	C2-O2	-5.74	1.17	1.22
1	A	638	U	N3-C4	-5.74	1.33	1.38
1	A	2093	C	C2-O2	5.74	1.29	1.24
1	A	2269	G	N9-C8	-5.74	1.33	1.37
1	A	2544	C	C3'-O3'	5.74	1.50	1.42
1	A	951	G	C5-C4	-5.74	1.34	1.38
1	A	1049	C	C1'-N1	5.74	1.57	1.48
1	A	2075	G	N9-C8	-5.74	1.33	1.37
1	A	2469	C	C2-O2	-5.74	1.19	1.24
1	A	126	A	N9-C4	-5.74	1.34	1.37
1	A	378	C	N1-C6	-5.74	1.33	1.37
1	A	488	G	C5-C6	-5.74	1.36	1.42
1	A	750	A	C5-C4	-5.74	1.34	1.38
1	A	832	C	C4-C5	-5.74	1.38	1.43
1	A	2061	U	C2'-C1'	-5.74	1.47	1.53
1	A	2278	G	N3-C4	-5.74	1.31	1.35
1	A	679	G	C6-N1	-5.74	1.35	1.39
1	A	715	A	C6-N6	-5.74	1.29	1.33
1	A	716	C	N1-C6	-5.74	1.33	1.37
1	A	2040	A	C8-N7	-5.74	1.27	1.31
1	A	2733	A	N7-C5	-5.74	1.35	1.39
1	A	2757	U	C4-O4	-5.74	1.19	1.23
1	A	367	A	C6-N1	-5.74	1.31	1.35
1	A	740	G	C2-N3	-5.74	1.28	1.32
1	A	353	A	N7-C5	-5.73	1.35	1.39
1	A	713	A	N1-C2	-5.73	1.29	1.34
1	A	774	G	C2-N3	-5.73	1.28	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2249	G	C5-C6	-5.73	1.36	1.42
1	A	2296	A	N3-C4	-5.73	1.31	1.34
1	A	2511	G	C2-N3	-5.73	1.28	1.32
1	A	966	C	N1-C6	-5.73	1.33	1.37
1	A	1062	U	C2-N3	-5.73	1.33	1.37
1	A	2032	A	C8-N7	-5.73	1.27	1.31
1	A	2415	A	N3-C4	-5.73	1.31	1.34
1	A	2566	C	C2-N3	-5.73	1.31	1.35
1	A	722	A	N9-C8	-5.73	1.33	1.37
1	A	879	U	C4-C5	-5.73	1.38	1.43
1	A	1283	G	N1-C2	-5.73	1.33	1.37
1	A	1329	G	N1-C2	-5.73	1.33	1.37
1	A	1797	G	N7-C5	-5.73	1.35	1.39
1	A	2079	G	C5-C4	-5.73	1.34	1.38
1	A	2746	G	C8-N7	-5.73	1.27	1.30
1	A	2737	C	N1-C6	-5.73	1.33	1.37
1	A	2888	A	C5-C4	-5.73	1.34	1.38
1	A	70	G	N1-C2	-5.73	1.33	1.37
1	A	1032	A	C4'-C3'	-5.73	1.46	1.52
1	A	2266	G	N7-C5	-5.73	1.35	1.39
1	A	2469	C	C4-C5	-5.73	1.38	1.43
1	A	2887	G	N1-C2	-5.73	1.33	1.37
1	A	28	A	C5-C4	-5.73	1.34	1.38
1	A	478	A	C5-C6	-5.73	1.35	1.41
1	A	649	U	C5-C6	-5.73	1.28	1.34
1	A	2026	C	C4-N4	-5.73	1.28	1.33
1	A	445	G	N9-C4	-5.72	1.33	1.38
1	A	1200	A	P-O5'	5.72	1.65	1.59
1	A	1675	G	C6-N1	-5.72	1.35	1.39
1	A	1783	G	C6-N1	-5.72	1.35	1.39
1	A	824	A	C6-N1	-5.72	1.31	1.35
1	A	948	U	C4-C5	-5.72	1.38	1.43
1	A	955	A	N9-C8	-5.72	1.33	1.37
1	A	2409	G	N9-C8	-5.72	1.33	1.37
1	A	2812	U	C5'-C4'	5.72	1.58	1.51
1	A	1749	G	N1-C2	-5.72	1.33	1.37
1	A	2568	A	P-O5'	-5.72	1.54	1.59
1	A	424	C	C4-C5	5.72	1.47	1.43
1	A	1435	C	C4-C5	-5.72	1.38	1.43
1	A	2048	G	C2-N3	-5.72	1.28	1.32
1	A	2297	G	N1-C2	-5.72	1.33	1.37
1	A	2483	C	N1-C2	5.72	1.45	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2862	C	N3-C4	-5.72	1.29	1.33
1	A	2004	A	C5-C4	-5.72	1.34	1.38
1	A	118	A	N9-C4	-5.72	1.34	1.37
1	A	982	G	C6-N1	-5.72	1.35	1.39
1	A	1299	U	N1-C2	5.72	1.43	1.38
1	A	1716	C	N3-C4	-5.72	1.29	1.33
1	A	2609	G	C5-C4	-5.72	1.34	1.38
1	A	352	A	C6-N1	-5.71	1.31	1.35
1	A	2419	A	N7-C5	-5.71	1.35	1.39
1	A	2492	C	N3-C4	-5.71	1.29	1.33
1	A	2593	A	O3'-P	5.71	1.68	1.61
1	A	2706	A	N3-C4	-5.71	1.31	1.34
1	A	14	A	N1-C2	-5.71	1.29	1.34
1	A	949	C	N3-C4	-5.71	1.29	1.33
1	A	517	A	C6-N1	-5.71	1.31	1.35
1	A	1336	G	N1-C2	-5.71	1.33	1.37
1	A	1347	G	N3-C4	-5.71	1.31	1.35
1	A	1741	G	C6-N1	-5.71	1.35	1.39
1	A	2385	A	N3-C4	-5.71	1.31	1.34
1	A	2855	A	P-O5'	-5.71	1.54	1.59
1	A	192	G	C5-C4	-5.71	1.34	1.38
1	A	613	G	P-O5'	-5.71	1.54	1.59
1	A	627	C	C2-O2	-5.71	1.19	1.24
1	A	1619	A	C5-C4	-5.71	1.34	1.38
1	A	1836	A	C5-C4	-5.71	1.34	1.38
1	A	263	G	P-O5'	5.71	1.65	1.59
1	A	1083	G	C8-N7	-5.71	1.27	1.30
1	A	1278	G	C8-N7	-5.71	1.27	1.30
1	A	1332	C	N3-C4	-5.71	1.29	1.33
1	A	1858	G	N1-C2	-5.71	1.33	1.37
1	A	1254	C	C2-N3	-5.71	1.31	1.35
1	A	2275	C	C4'-C3'	5.71	1.59	1.53
1	A	13	A	C5-C4	-5.70	1.34	1.38
1	A	248	G	C5-C4	-5.70	1.34	1.38
1	A	521	U	N1-C2	5.70	1.43	1.38
1	A	1242	A	C5-C4	-5.70	1.34	1.38
1	A	2809	G	C2-N3	-5.70	1.28	1.32
1	A	369	G	N3-C4	-5.70	1.31	1.35
1	A	574	A	C8-N7	-5.70	1.27	1.31
1	A	441	C	C2-N3	-5.70	1.31	1.35
1	A	482	U	C2-O2	-5.70	1.17	1.22
1	A	489	A	P-O5'	5.70	1.65	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2314	A	C5-C6	-5.70	1.35	1.41
1	A	2465	U	C2-N3	-5.70	1.33	1.37
1	A	1198	G	C5-C4	-5.70	1.34	1.38
1	A	1290	G	C6-N1	-5.70	1.35	1.39
1	A	1035	C	C4-N4	-5.70	1.28	1.33
1	A	1351	C	C4-C5	-5.70	1.38	1.43
1	A	1721	A	C8-N7	-5.70	1.27	1.31
1	A	2387	A	C5-C4	-5.70	1.34	1.38
1	A	490	C	C4-C5	-5.70	1.38	1.43
1	A	652	A	N7-C5	-5.70	1.35	1.39
1	A	676	A	N7-C5	-5.70	1.35	1.39
1	A	1007	U	N3-C4	-5.70	1.33	1.38
1	A	1679	A	N7-C5	-5.70	1.35	1.39
1	A	2050	A	C5-C6	-5.70	1.35	1.41
1	A	2434	A	N7-C5	-5.70	1.35	1.39
1	A	2452	A	N9-C8	-5.70	1.33	1.37
1	A	723	C	C2-N3	-5.69	1.31	1.35
1	A	1389	U	C4-C5	-5.69	1.38	1.43
1	A	55	G	C2-N3	-5.69	1.28	1.32
1	A	341	G	C8-N7	-5.69	1.27	1.30
1	A	1067	U	C4-C5	-5.69	1.38	1.43
1	A	1405	G	N3-C4	-5.69	1.31	1.35
1	A	1818	A	N9-C4	-5.69	1.34	1.37
1	A	2759	G	N1-C2	-5.69	1.33	1.37
1	A	239	C	N1-C6	-5.69	1.33	1.37
1	A	621	A	C2-N3	-5.69	1.28	1.33
1	A	1345	A	C5-C4	-5.69	1.34	1.38
1	A	1844	G	C5-C4	-5.69	1.34	1.38
1	A	2865	G	C5-C6	-5.69	1.36	1.42
15	O	34	VAL	CB-CG2	-5.69	1.41	1.52
1	A	1699	A	N7-C5	-5.69	1.35	1.39
1	A	2842	G	N3-C4	-5.69	1.31	1.35
1	A	552	A	C5-C6	-5.69	1.35	1.41
1	A	619	U	C4-C5	-5.69	1.38	1.43
1	A	629	A	C6-N1	-5.69	1.31	1.35
1	A	637	U	N3-C4	-5.69	1.33	1.38
1	A	700	A	N7-C5	-5.69	1.35	1.39
1	A	1408	G	C5-C4	-5.69	1.34	1.38
1	A	1645	G	C5-C4	-5.69	1.34	1.38
1	A	2297	G	C5-C4	-5.69	1.34	1.38
1	A	515	G	C8-N7	-5.69	1.27	1.30
1	A	1718	G	C5-C4	-5.69	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	190	G	N1-C2	-5.68	1.33	1.37
1	A	676	A	N9-C8	-5.68	1.33	1.37
1	A	679	G	C5-C4	-5.68	1.34	1.38
1	A	809	A	C6-N1	-5.68	1.31	1.35
1	A	956	A	N3-C4	-5.68	1.31	1.34
1	A	1010	G	C6-O6	-5.68	1.19	1.24
1	A	1181	G	C4'-C3'	-5.68	1.46	1.52
1	A	1820	G	N7-C5	-5.68	1.35	1.39
1	A	1996	A	N9-C4	-5.68	1.34	1.37
1	A	2712	G	N1-C2	-5.68	1.33	1.37
1	A	110	A	N9-C4	-5.68	1.34	1.37
1	A	788	A	N9-C4	-5.68	1.34	1.37
1	A	2014	G	C6-N1	-5.68	1.35	1.39
1	A	513	G	N9-C8	-5.68	1.33	1.37
1	A	1183	G	N9-C8	-5.68	1.33	1.37
1	A	1649	C	C4-C5	-5.68	1.38	1.43
1	A	2364	G	C5'-C4'	5.68	1.58	1.51
1	A	559	A	C8-N7	-5.68	1.27	1.31
1	A	2480	A	C8-N7	-5.68	1.27	1.31
1	A	118	A	N7-C5	-5.67	1.35	1.39
1	A	304	G	N9-C4	-5.67	1.33	1.38
1	A	2898	U	C4-C5	-5.67	1.38	1.43
1	A	55	G	N9-C8	-5.67	1.33	1.37
1	A	663	U	C2-N3	-5.67	1.33	1.37
1	A	682	A	N7-C5	-5.67	1.35	1.39
1	A	1036	C	P-O5'	-5.67	1.54	1.59
1	A	2301	A	C8-N7	-5.67	1.27	1.31
1	A	2704	A	C6-N1	-5.67	1.31	1.35
1	A	1014	U	N1-C2	5.67	1.43	1.38
1	A	2471	G	C1'-N9	-5.67	1.39	1.46
1	A	245	G	N1-C2	-5.67	1.33	1.37
1	A	485	A	C5-C4	-5.67	1.34	1.38
1	A	731	U	C2-O2	-5.67	1.17	1.22
1	A	810	A	N9-C8	-5.67	1.33	1.37
1	A	1282	A	N9-C8	-5.67	1.33	1.37
1	A	1680	U	C2-N3	-5.67	1.33	1.37
1	A	2671	A	C5-C4	-5.67	1.34	1.38
1	A	121	G	N9-C8	-5.67	1.33	1.37
1	A	226	A	C5-C6	-5.67	1.35	1.41
1	A	2388	A	N7-C5	-5.67	1.35	1.39
1	A	2718	C	C4-C5	-5.67	1.38	1.43
1	A	2845	G	C6-O6	-5.67	1.19	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2851	G	N1-C2	-5.67	1.33	1.37
1	A	556	U	N1-C6	-5.67	1.32	1.38
1	A	873	U	C4-C5	-5.67	1.38	1.43
1	A	574	A	N3-C4	-5.66	1.31	1.34
1	A	912	C	C5-C6	-5.66	1.29	1.34
1	A	1225	G	P-O5'	5.66	1.65	1.59
1	A	1337	A	N9-C4	-5.66	1.34	1.37
1	A	1705	G	N9-C4	-5.66	1.33	1.38
1	A	2601	G	N7-C5	-5.66	1.35	1.39
1	A	2605	G	C2-N3	-5.66	1.28	1.32
1	A	512	A	C8-N7	-5.66	1.27	1.31
1	A	813	G	N1-C2	-5.66	1.33	1.37
1	A	1799	G	N9-C8	-5.66	1.33	1.37
1	A	2074	C	C5-C6	-5.66	1.29	1.34
1	A	48	G	C2'-C1'	-5.66	1.47	1.53
1	A	1375	G	C8-N7	-5.66	1.27	1.30
1	A	1709	A	C5-C4	-5.66	1.34	1.38
1	A	1832	C	C4-C5	-5.66	1.38	1.43
1	A	2267	C	N1-C6	-5.66	1.33	1.37
1	A	2538	U	C2-O2	-5.66	1.17	1.22
1	A	2644	C	C4'-C3'	-5.66	1.46	1.52
1	A	2660	A	C5-C4	-5.66	1.34	1.38
1	A	808	G	C6-N1	-5.66	1.35	1.39
1	A	1855	G	C6-N1	-5.66	1.35	1.39
1	A	2050	A	C8-N7	-5.66	1.27	1.31
1	A	720	A	C5-C4	-5.65	1.34	1.38
1	A	1697	G	N9-C8	-5.65	1.33	1.37
1	A	37	C	C5'-C4'	5.65	1.58	1.51
1	A	1173	A	N3-C4	-5.65	1.31	1.34
1	A	194	A	C5-C6	5.65	1.46	1.41
1	A	525	A	C5-C4	-5.65	1.34	1.38
1	A	900	G	C5-C4	-5.65	1.34	1.38
1	A	1472	C	N3-C4	-5.65	1.29	1.33
1	A	120	G	C8-N7	-5.65	1.27	1.30
1	A	236	A	N1-C2	-5.65	1.29	1.34
1	A	707	G	C4'-C3'	5.65	1.59	1.53
1	A	816	G	C2-N3	-5.65	1.28	1.32
1	A	2064	A	O5'-C5'	5.65	1.53	1.44
1	A	241	C	P-O5'	5.65	1.65	1.59
1	A	524	A	C6-N1	-5.65	1.31	1.35
1	A	645	A	N9-C8	-5.65	1.33	1.37
1	A	668	C	C4'-C3'	5.65	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	255	G	N9-C4	-5.64	1.33	1.38
1	A	1614	A	N3-C4	-5.64	1.31	1.34
1	A	2290	C	C4-C5	-5.64	1.38	1.43
10	J	19	VAL	CB-CG1	-5.64	1.41	1.52
1	A	656	G	C6-N1	-5.64	1.35	1.39
1	A	676	A	N9-C4	-5.64	1.34	1.37
1	A	831	C	N3-C4	-5.64	1.29	1.33
1	A	879	U	C4-O4	-5.64	1.19	1.23
1	A	1853	C	C4-C5	-5.64	1.38	1.43
1	A	2056	G	N9-C8	-5.64	1.33	1.37
1	A	2095	U	C2-N3	-5.64	1.33	1.37
1	A	845	A	C6-N1	-5.64	1.31	1.35
1	A	871	U	C4-O4	-5.64	1.19	1.23
1	A	1845	U	C4-O4	-5.64	1.19	1.23
1	A	2063	C	C3'-O3'	5.64	1.50	1.42
1	A	1406	G	C5-C4	-5.64	1.34	1.38
1	A	1851	G	C8-N7	-5.64	1.27	1.30
1	A	1996	A	N7-C5	-5.64	1.35	1.39
1	A	217	G	N1-C2	-5.64	1.33	1.37
1	A	703	A	N9-C4	5.64	1.41	1.37
1	A	1201	G	C2-N3	-5.64	1.28	1.32
1	A	1735	C	N1-C6	-5.64	1.33	1.37
1	A	630	G	C2-N3	-5.63	1.28	1.32
1	A	847	A	C6-N6	-5.63	1.29	1.33
1	A	867	U	C4-O4	-5.63	1.19	1.23
1	A	2285	C	N1-C2	5.63	1.45	1.40
1	A	30	G	C2-N3	-5.63	1.28	1.32
1	A	805	G	N7-C5	-5.63	1.35	1.39
1	A	2086	A	C6-N1	-5.63	1.31	1.35
2	B	86	A	N9-C4	-5.63	1.34	1.37
29	3	62	LEU	CA-CB	-5.63	1.40	1.53
1	A	674	C	N3-C4	-5.63	1.30	1.33
1	A	696	G	N9-C8	-5.63	1.33	1.37
1	A	978	A	N9-C4	-5.63	1.34	1.37
1	A	1035	C	O3'-P	5.63	1.68	1.61
1	A	2746	G	N7-C5	-5.63	1.35	1.39
1	A	531	C	N3-C4	-5.63	1.30	1.33
1	A	2594	G	C6-N1	-5.63	1.35	1.39
1	A	2858	G	C2-N3	-5.63	1.28	1.32
1	A	622	A	C8-N7	-5.63	1.27	1.31
1	A	659	A	N7-C5	-5.63	1.35	1.39
1	A	660	A	N3-C4	-5.63	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	872	U	P-O5'	5.63	1.65	1.59
1	A	2058	A	C6-N1	-5.63	1.31	1.35
1	A	2278	G	N9-C8	-5.63	1.33	1.37
1	A	2408	C	N3-C4	-5.63	1.30	1.33
1	A	2599	A	N3-C4	-5.63	1.31	1.34
1	A	2746	G	N9-C8	-5.63	1.33	1.37
1	A	546	A	N9-C4	-5.62	1.34	1.37
1	A	1370	C	C2-N3	-5.62	1.31	1.35
1	A	42	G	N9-C4	-5.62	1.33	1.38
1	A	115	C	N1-C6	-5.62	1.33	1.37
1	A	428	G	C5-C6	5.62	1.48	1.42
1	A	1412	G	C6-N1	-5.62	1.35	1.39
1	A	2523	C	P-O5'	-5.62	1.54	1.59
1	A	2868	G	P-O5'	5.62	1.65	1.59
1	A	187	C	N3-C4	-5.62	1.30	1.33
1	A	255	G	N3-C4	-5.62	1.31	1.35
1	A	561	C	C2-O2	-5.62	1.19	1.24
1	A	2737	C	C2-N3	-5.62	1.31	1.35
1	A	983	G	N7-C5	-5.62	1.35	1.39
1	A	2615	G	C2-N3	-5.62	1.28	1.32
1	A	583	A	N9-C8	-5.62	1.33	1.37
1	A	735	C	C4-C5	-5.62	1.38	1.43
1	A	841	C	N1-C2	-5.62	1.34	1.40
1	A	893	G	N3-C4	5.62	1.39	1.35
1	A	1019	A	P-O5'	-5.62	1.54	1.59
1	A	1323	A	N9-C4	-5.62	1.34	1.37
1	A	1708	A	C5-C4	-5.62	1.34	1.38
1	A	2608	G	C6-O6	-5.62	1.19	1.24
1	A	2626	G	C5-C4	-5.62	1.34	1.38
1	A	823	G	N1-C2	-5.62	1.33	1.37
1	A	1657	G	N7-C5	-5.62	1.35	1.39
1	A	1747	G	N7-C5	-5.62	1.35	1.39
1	A	1183	G	C2'-C1'	-5.61	1.47	1.53
1	A	1355	A	C5-C6	-5.61	1.35	1.41
1	A	1813	A	N9-C8	-5.61	1.33	1.37
1	A	811	C	N1-C6	-5.61	1.33	1.37
1	A	905	U	C3'-O3'	5.61	1.50	1.42
1	A	918	G	N7-C5	-5.61	1.35	1.39
1	A	1230	G	C5-C6	-5.61	1.36	1.42
1	A	1665	U	C2-N3	-5.61	1.33	1.37
1	A	1846	A	N9-C8	-5.61	1.33	1.37
1	A	2523	C	C4'-C3'	-5.61	1.47	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	881	G	N7-C5	-5.61	1.35	1.39
1	A	2051	C	C4-C5	-5.61	1.38	1.43
31	a	1505	G	N7-C5	-5.61	1.35	1.39
1	A	416	G	N3-C4	-5.61	1.31	1.35
1	A	1055	A	C2-N3	-5.61	1.28	1.33
1	A	1284	A	N9-C8	-5.61	1.33	1.37
1	A	1323	A	N3-C4	-5.61	1.31	1.34
1	A	1714	C	C4-C5	-5.61	1.38	1.43
1	A	2024	A	C5-C4	-5.61	1.34	1.38
1	A	2902	A	C5-C4	-5.61	1.34	1.38
1	A	1172	A	N3-C4	-5.61	1.31	1.34
1	A	1200	A	C8-N7	-5.61	1.27	1.31
1	A	1253	G	C2-N3	-5.61	1.28	1.32
1	A	2792	A	C8-N7	-5.61	1.27	1.31
1	A	365	A	C5-C6	-5.60	1.36	1.41
1	A	623	C	N1-C6	-5.60	1.33	1.37
1	A	1812	A	N9-C8	-5.60	1.33	1.37
1	A	1819	G	C8-N7	-5.60	1.27	1.30
1	A	2552	G	C2-N3	-5.60	1.28	1.32
1	A	1787	A	N9-C8	-5.60	1.33	1.37
1	A	2382	C	C5'-C4'	5.60	1.58	1.51
1	A	2479	C	C4-C5	-5.60	1.38	1.43
1	A	20	C	N1-C6	-5.60	1.33	1.37
1	A	350	G	C5-C6	-5.60	1.36	1.42
1	A	393	G	N7-C5	-5.60	1.35	1.39
1	A	1007	U	C2-N3	-5.60	1.33	1.37
1	A	1823	U	N3-C4	-5.60	1.33	1.38
1	A	2062	G	C2-N3	-5.60	1.28	1.32
1	A	2710	C	N1-C6	-5.60	1.33	1.37
1	A	25	U	N1-C6	-5.60	1.32	1.38
1	A	67	G	N7-C5	-5.60	1.35	1.39
1	A	876	G	C8-N7	-5.60	1.27	1.30
1	A	1225	G	N1-C2	-5.60	1.33	1.37
1	A	1244	G	N1-C2	-5.60	1.33	1.37
1	A	1253	G	C6-O6	-5.60	1.19	1.24
1	A	1805	U	N1-C2	-5.60	1.33	1.38
1	A	1837	A	C6-N1	-5.60	1.31	1.35
1	A	1857	C	N3-C4	-5.60	1.30	1.33
1	A	2610	G	N7-C5	-5.60	1.35	1.39
1	A	560	A	C6-N6	-5.60	1.29	1.33
1	A	2068	U	C5-C6	-5.60	1.29	1.34
1	A	212	C	C5-C6	-5.59	1.29	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	873	U	N1-C2	-5.59	1.33	1.38
1	A	1253	G	N9-C8	-5.59	1.33	1.37
1	A	1276	G	N7-C5	-5.59	1.35	1.39
1	A	2633	C	C2-N3	-5.59	1.31	1.35
1	A	2664	U	C4-O4	-5.59	1.19	1.23
1	A	1470	G	C5-C4	-5.59	1.34	1.38
1	A	1687	G	N7-C5	-5.59	1.35	1.39
1	A	540	G	C6-N1	-5.59	1.35	1.39
1	A	1048	U	C2-O2	-5.59	1.17	1.22
1	A	1239	C	C2'-C1'	-5.59	1.47	1.53
1	A	1791	G	C5-C4	-5.59	1.34	1.38
1	A	1798	C	C5-C6	-5.59	1.29	1.34
1	A	1844	G	N9-C8	-5.59	1.33	1.37
1	A	27	G	C5-C6	5.59	1.48	1.42
1	A	961	G	C8-N7	-5.59	1.27	1.30
1	A	1003	A	N3-C4	-5.59	1.31	1.34
1	A	2318	U	C2-O2	-5.59	1.17	1.22
1	A	497	U	N3-C4	-5.59	1.33	1.38
1	A	890	G	C5-C6	-5.59	1.36	1.42
1	A	962	A	C5-C6	-5.59	1.36	1.41
1	A	1267	A	C6-N6	-5.59	1.29	1.33
1	A	2008	A	N7-C5	-5.59	1.35	1.39
1	A	1228	A	C8-N7	-5.59	1.27	1.31
1	A	2603	G	C8-N7	-5.59	1.27	1.30
1	A	583	A	O3'-P	5.58	1.67	1.61
1	A	2568	A	C4'-C3'	-5.58	1.47	1.52
1	A	2796	C	C4-C5	-5.58	1.38	1.43
1	A	376	A	N1-C2	-5.58	1.29	1.34
1	A	627	C	C4-C5	-5.58	1.38	1.43
1	A	802	G	N1-C2	-5.58	1.33	1.37
1	A	1827	C	C4-C5	-5.58	1.38	1.43
1	A	121	G	C5-C4	-5.58	1.34	1.38
1	A	808	G	N9-C8	-5.58	1.33	1.37
1	A	1264	A	C6-N6	-5.58	1.29	1.33
1	A	1853	C	C4-N4	-5.58	1.28	1.33
1	A	2462	A	N9-C8	-5.58	1.33	1.37
1	A	2651	G	N3-C4	-5.58	1.31	1.35
1	A	178	A	C5-C4	-5.58	1.34	1.38
1	A	573	A	C6-N1	-5.58	1.31	1.35
1	A	628	G	C2-N2	-5.58	1.28	1.34
1	A	2044	C	C3'-C2'	5.58	1.59	1.52
1	A	2514	G	N7-C5	-5.58	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2756	G	N7-C5	-5.58	1.35	1.39
1	A	1059	A	N3-C4	-5.58	1.31	1.34
1	A	1856	A	N3-C4	-5.58	1.31	1.34
1	A	739	U	N3-C4	-5.57	1.33	1.38
1	A	750	A	N7-C5	-5.57	1.35	1.39
1	A	2479	C	P-O5'	5.57	1.65	1.59
1	A	2590	U	N3-C4	-5.57	1.33	1.38
1	A	1346	G	N1-C2	-5.57	1.33	1.37
1	A	1648	C	N1-C6	-5.57	1.33	1.37
1	A	1825	U	C2-N3	-5.57	1.33	1.37
1	A	217	G	N3-C4	-5.57	1.31	1.35
1	A	573	A	N9-C8	-5.57	1.33	1.37
1	A	741	G	N1-C2	-5.57	1.33	1.37
1	A	2383	C	N3-C4	-5.57	1.30	1.33
1	A	916	U	N3-C4	-5.57	1.33	1.38
1	A	2068	U	C2-O2	-5.57	1.17	1.22
1	A	123	G	C5-C4	-5.57	1.34	1.38
1	A	1957	G	C2-N3	-5.57	1.28	1.32
1	A	2042	A	C5-C4	-5.57	1.34	1.38
1	A	2855	A	C2-N3	-5.57	1.28	1.33
1	A	200	A	C6-N6	-5.57	1.29	1.33
1	A	207	A	N9-C8	-5.57	1.33	1.37
1	A	505	U	N3-C4	-5.57	1.33	1.38
1	A	702	U	C5-C6	-5.57	1.29	1.34
1	A	815	G	N3-C4	-5.57	1.31	1.35
1	A	853	G	N7-C5	-5.57	1.35	1.39
1	A	1183	G	C6-N1	-5.57	1.35	1.39
1	A	1265	G	C2-N3	-5.57	1.28	1.32
1	A	1712	A	C2-N3	-5.57	1.28	1.33
1	A	2651	G	C2-N3	-5.57	1.28	1.32
1	A	1187	A	C6-N1	-5.56	1.31	1.35
1	A	2296	A	C6-N1	-5.56	1.31	1.35
1	A	803	C	N3-C4	-5.56	1.30	1.33
1	A	1036	C	C5'-C4'	-5.56	1.44	1.51
1	A	1298	G	C8-N7	-5.56	1.27	1.30
1	A	2464	C	N1-C6	-5.56	1.33	1.37
1	A	2593	A	N7-C5	-5.56	1.35	1.39
1	A	2720	A	N9-C8	-5.56	1.33	1.37
1	A	2724	G	C6-N1	-5.56	1.35	1.39
1	A	369	G	C5-C4	-5.56	1.34	1.38
1	A	514	G	N9-C8	-5.56	1.33	1.37
1	A	862	C	N1-C6	-5.56	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1744	A	C5-C6	-5.56	1.36	1.41
1	A	471	G	N3-C4	-5.56	1.31	1.35
1	A	1057	A	N9-C8	-5.56	1.33	1.37
1	A	2389	G	C8-N7	-5.56	1.27	1.30
1	A	631	U	C2-N3	-5.56	1.33	1.37
1	A	969	A	C6-N6	-5.56	1.29	1.33
1	A	1331	C	C5-C6	-5.56	1.29	1.34
1	A	2079	G	N9-C4	-5.56	1.33	1.38
1	A	2473	G	C4'-C3'	-5.56	1.47	1.52
1	A	2734	C	N1-C6	-5.56	1.33	1.37
1	A	1252	A	N3-C4	-5.56	1.31	1.34
1	A	1401	G	N9-C4	-5.56	1.33	1.38
1	A	2280	G	C6-N1	-5.56	1.35	1.39
1	A	614	U	C2-N3	-5.55	1.33	1.37
1	A	804	G	N9-C8	-5.55	1.33	1.37
1	A	1996	A	C5-C4	-5.55	1.34	1.38
1	A	1328	C	C4-C5	-5.55	1.38	1.43
1	A	886	A	C5-C6	-5.55	1.36	1.41
1	A	628	G	C2-N3	-5.55	1.28	1.32
1	A	860	U	N1-C6	-5.55	1.32	1.38
1	A	908	A	C2-N3	5.55	1.38	1.33
1	A	1172	A	N9-C4	-5.55	1.34	1.37
1	A	1230	G	C2-N3	5.55	1.37	1.32
1	A	1699	A	C6-N6	-5.55	1.29	1.33
1	A	2832	A	N7-C5	-5.55	1.35	1.39
1	A	726	G	C8-N7	-5.55	1.27	1.30
1	A	971	U	N1-C2	5.55	1.43	1.38
1	A	1226	G	N3-C4	-5.55	1.31	1.35
1	A	2393	A	C6-N6	-5.55	1.29	1.33
1	A	65	A	C6-N1	-5.55	1.31	1.35
1	A	705	U	N3-C4	-5.55	1.33	1.38
1	A	965	G	N7-C5	-5.55	1.35	1.39
1	A	2473	G	O3'-P	-5.55	1.54	1.61
1	A	2630	G	C6-N1	-5.55	1.35	1.39
1	A	2663	U	C2-N3	-5.55	1.33	1.37
1	A	2895	G	C6-N1	-5.55	1.35	1.39
1	A	206	U	N3-C4	-5.54	1.33	1.38
1	A	2809	G	C5-C4	-5.54	1.34	1.38
1	A	25	U	C4-O4	-5.54	1.19	1.23
1	A	998	G	N7-C5	-5.54	1.35	1.39
1	A	1745	A	N9-C8	-5.54	1.33	1.37
1	A	1810	A	N1-C2	-5.54	1.29	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2268	A	C5-C6	-5.54	1.36	1.41
1	A	2522	G	N7-C5	-5.54	1.35	1.39
1	A	300	G	C6-O6	-5.54	1.19	1.24
1	A	812	U	C5-C6	-5.54	1.29	1.34
1	A	883	C	C4-C5	-5.54	1.38	1.43
1	A	886	A	N7-C5	-5.54	1.35	1.39
1	A	901	G	N1-C2	-5.54	1.33	1.37
1	A	986	G	C5-C6	-5.54	1.36	1.42
1	A	1037	A	C4'-C3'	-5.54	1.47	1.52
1	A	1242	A	N7-C5	-5.54	1.35	1.39
1	A	672	A	N7-C5	-5.54	1.35	1.39
1	A	989	A	C8-N7	-5.54	1.27	1.31
1	A	1327	C	N1-C6	-5.54	1.33	1.37
1	A	1780	G	C5-C4	-5.54	1.34	1.38
1	A	1841	G	N3-C4	-5.54	1.31	1.35
1	A	2272	U	N1-C6	-5.54	1.32	1.38
1	A	2812	U	C4'-C3'	5.54	1.59	1.53
1	A	2454	C	O3'-P	5.54	1.67	1.61
1	A	57	C	C2-N3	-5.54	1.31	1.35
1	A	129	C	N3-C4	-5.54	1.30	1.33
1	A	427	A	C6-N1	-5.54	1.31	1.35
1	A	996	G	C2-N2	-5.54	1.29	1.34
1	A	1734	A	N9-C4	-5.54	1.34	1.37
1	A	1841	G	N9-C8	-5.54	1.33	1.37
1	A	2480	A	C2'-C1'	-5.54	1.47	1.53
1	A	2859	G	N7-C5	-5.54	1.35	1.39
1	A	1709	A	N9-C8	-5.53	1.33	1.37
1	A	2081	A	N9-C4	-5.53	1.34	1.37
1	A	2355	A	C8-N7	-5.53	1.27	1.31
1	A	194	A	N1-C2	-5.53	1.29	1.34
1	A	493	A	C6-N6	-5.53	1.29	1.33
1	A	2910	G	C6-N1	-5.53	1.35	1.39
1	A	7	G	N3-C4	-5.53	1.31	1.35
1	A	257	G	N7-C5	-5.53	1.35	1.39
1	A	627	C	C4-N4	-5.53	1.28	1.33
1	A	1027	A	N9-C8	-5.53	1.33	1.37
1	A	1262	U	N3-C4	-5.53	1.33	1.38
1	A	2356	A	C8-N7	-5.53	1.27	1.31
1	A	739	U	C2-O2	-5.53	1.17	1.22
1	A	1615	G	N3-C4	-5.53	1.31	1.35
1	A	1795	A	N9-C4	-5.53	1.34	1.37
1	A	2377	C	N1-C6	-5.53	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2655	U	C4-C5	-5.53	1.38	1.43
1	A	804	G	N1-C2	-5.53	1.33	1.37
1	A	1034	A	C5-C6	5.53	1.46	1.41
1	A	1702	C	N3-C4	-5.53	1.30	1.33
1	A	1745	A	C5-C4	-5.53	1.34	1.38
1	A	1979	A	N3-C4	-5.53	1.31	1.34
1	A	2045	A	C8-N7	-5.53	1.27	1.31
1	A	2275	C	C2'-C1'	5.53	1.59	1.53
1	A	2295	A	O3'-P	-5.53	1.54	1.61
1	A	46	C	C4-C5	-5.53	1.38	1.43
1	A	118	A	C6-N1	-5.53	1.31	1.35
1	A	1003	A	C6-N6	-5.53	1.29	1.33
1	A	1697	G	P-O5'	5.53	1.65	1.59
1	A	2086	A	N7-C5	-5.53	1.35	1.39
1	A	2310	C	N3-C4	-5.53	1.30	1.33
1	A	2851	G	N9-C4	-5.53	1.33	1.38
1	A	240	C	N3-C4	-5.52	1.30	1.33
1	A	1290	G	C2-N3	-5.52	1.28	1.32
1	A	2457	A	C2-N3	5.52	1.38	1.33
1	A	2654	G	N1-C2	-5.52	1.33	1.37
1	A	26	G	N7-C5	-5.52	1.35	1.39
1	A	712	U	C4-O4	-5.52	1.19	1.23
1	A	852	U	C5-C6	-5.52	1.29	1.34
1	A	1675	G	C8-N7	-5.52	1.27	1.30
1	A	2067	U	C2-N3	-5.52	1.33	1.37
2	B	77	G	N9-C8	-5.52	1.33	1.37
1	A	2742	C	N1-C6	-5.52	1.33	1.37
1	A	827	A	C8-N7	-5.52	1.27	1.31
1	A	1246	C	N3-C4	-5.52	1.30	1.33
1	A	1783	G	N7-C5	-5.52	1.35	1.39
1	A	2117	A	C5-C4	-5.52	1.34	1.38
1	A	2476	U	C2-O2	-5.52	1.17	1.22
1	A	2032	A	C6-N6	-5.52	1.29	1.33
1	A	2653	C	P-O5'	5.52	1.65	1.59
1	A	414	C	N1-C6	-5.51	1.33	1.37
1	A	905	U	C2-O2	-5.51	1.17	1.22
1	A	2914	A	N7-C5	-5.51	1.35	1.39
1	A	1700	C	N1-C6	-5.51	1.33	1.37
1	A	2095	U	N1-C2	5.51	1.43	1.38
1	A	196	U	C2-N3	-5.51	1.33	1.37
1	A	244	A	C8-N7	-5.51	1.27	1.31
1	A	907	G	N9-C4	5.51	1.42	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	992	A	C5-C6	-5.51	1.36	1.41
1	A	2443	C	N3-C4	-5.51	1.30	1.33
1	A	2645	G	C2-N3	5.51	1.37	1.32
1	A	53	A	N7-C5	-5.51	1.35	1.39
1	A	73	A	C5-C4	-5.51	1.34	1.38
1	A	218	G	N1-C2	-5.51	1.33	1.37
1	A	860	U	C5-C6	-5.51	1.29	1.34
1	A	951	G	C5-C6	-5.51	1.36	1.42
1	A	1619	A	N3-C4	-5.51	1.31	1.34
1	A	2286	G	C6-N1	-5.51	1.35	1.39
2	B	98	A	N7-C5	-5.51	1.35	1.39
1	A	55	G	N1-C2	-5.51	1.33	1.37
1	A	2069	A	C5-C4	-5.51	1.34	1.38
1	A	2271	U	C4-C5	-5.51	1.38	1.43
1	A	12	U	N3-C4	-5.51	1.33	1.38
1	A	191	A	C5-C4	-5.51	1.34	1.38
1	A	1372	C	N1-C2	-5.51	1.34	1.40
1	A	358	G	N7-C5	-5.50	1.35	1.39
1	A	1320	G	C6-N1	-5.50	1.35	1.39
1	A	2434	A	C2-N3	-5.50	1.28	1.33
1	A	673	G	N7-C5	-5.50	1.35	1.39
1	A	2445	A	C5-C4	-5.50	1.34	1.38
1	A	2805	A	C3'-O3'	5.50	1.49	1.42
1	A	44	A	C5-C6	-5.50	1.36	1.41
1	A	416	G	C2-N3	-5.50	1.28	1.32
1	A	2365	G	C6-N1	-5.50	1.35	1.39
1	A	2719	C	C5-C6	-5.50	1.29	1.34
1	A	2758	G	C5-C4	-5.50	1.34	1.38
1	A	201	C	C4-N4	-5.50	1.28	1.33
1	A	1411	G	C5-C4	-5.50	1.34	1.38
1	A	238	U	C4'-C3'	-5.50	1.47	1.52
1	A	816	G	N3-C4	-5.50	1.31	1.35
1	A	878	C	C4-N4	-5.50	1.29	1.33
1	A	1250	G	N9-C8	-5.50	1.34	1.37
1	A	1709	A	C8-N7	-5.50	1.27	1.31
1	A	2280	G	N7-C5	-5.50	1.35	1.39
1	A	41	A	C6-N1	-5.50	1.31	1.35
1	A	509	G	C8-N7	-5.50	1.27	1.30
1	A	1282	A	N9-C4	-5.50	1.34	1.37
1	A	2792	A	C6-N6	-5.50	1.29	1.33
1	A	54	G	C5-C4	-5.50	1.34	1.38
1	A	1366	U	C4-C5	-5.50	1.38	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2356	A	N7-C5	-5.50	1.35	1.39
1	A	517	A	N3-C4	-5.49	1.31	1.34
1	A	517	A	N7-C5	-5.49	1.35	1.39
1	A	1473	G	C5-C6	-5.49	1.36	1.42
1	A	1833	C	N3-C4	-5.49	1.30	1.33
1	A	1856	A	N9-C8	-5.49	1.33	1.37
1	A	1929	C	N3-C4	-5.49	1.30	1.33
1	A	28	A	C6-N1	-5.49	1.31	1.35
1	A	368	A	C5-C6	-5.49	1.36	1.41
1	A	1328	C	N3-C4	-5.49	1.30	1.33
1	A	773	G	N1-C2	-5.49	1.33	1.37
1	A	880	A	N1-C2	-5.49	1.29	1.34
1	A	1060	U	N3-C4	-5.49	1.33	1.38
1	A	1375	G	C5-C6	-5.49	1.36	1.42
1	A	2841	A	N9-C8	-5.49	1.33	1.37
1	A	550	A	C6-N1	-5.49	1.31	1.35
1	A	595	G	C4'-C3'	-5.49	1.47	1.52
1	A	1410	A	C5-C4	-5.49	1.34	1.38
1	A	1708	A	N3-C4	-5.49	1.31	1.34
1	A	1748	G	C6-N1	-5.49	1.35	1.39
1	A	2307	G	C6-N1	-5.49	1.35	1.39
1	A	2797	C	C5-C6	-5.49	1.29	1.34
1	A	842	U	N3-C4	-5.49	1.33	1.38
1	A	1986	G	N9-C8	-5.49	1.34	1.37
1	A	1999	G	C8-N7	-5.49	1.27	1.30
1	A	2528	C	C4-N4	-5.49	1.29	1.33
1	A	2628	C	N1-C6	-5.49	1.33	1.37
1	A	1253	G	N9-C4	-5.48	1.33	1.38
1	A	1388	C	N3-C4	-5.48	1.30	1.33
3	C	62	TYR	CD1-CE1	-5.48	1.31	1.39
1	A	723	C	N3-C4	-5.48	1.30	1.33
1	A	774	G	N3-C4	-5.48	1.31	1.35
1	A	1245	G	N1-C2	-5.48	1.33	1.37
1	A	1394	U	C2-N3	-5.48	1.33	1.37
1	A	1398	G	C5-C4	-5.48	1.34	1.38
1	A	1818	A	C5-C6	-5.48	1.36	1.41
1	A	901	G	C2-N2	-5.48	1.29	1.34
1	A	44	A	C2'-C1'	-5.48	1.47	1.53
1	A	630	G	C3'-O3'	5.48	1.49	1.42
1	A	1742	A	C5-C4	-5.48	1.34	1.38
1	A	2715	G	C5-C4	-5.48	1.34	1.38
1	A	111	U	C2-N3	-5.48	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	239	C	N3-C4	-5.48	1.30	1.33
1	A	491	C	C4-C5	-5.48	1.38	1.43
1	A	725	A	N9-C4	-5.48	1.34	1.37
1	A	740	G	C8-N7	-5.48	1.27	1.30
1	A	779	A	N9-C4	-5.48	1.34	1.37
1	A	1794	C	N3-C4	-5.48	1.30	1.33
1	A	1814	A	C5-C4	-5.48	1.34	1.38
1	A	2029	G	N9-C4	-5.48	1.33	1.38
1	A	2899	A	C6-N1	-5.48	1.31	1.35
1	A	711	G	N9-C8	-5.48	1.34	1.37
1	A	1376	G	C2-N3	-5.48	1.28	1.32
1	A	1379	A	C8-N7	-5.48	1.27	1.31
1	A	1721	A	C5-C4	-5.48	1.34	1.38
1	A	2387	A	C5-C6	-5.48	1.36	1.41
1	A	151	U	P-O5'	5.47	1.65	1.59
1	A	250	G	N3-C4	-5.47	1.31	1.35
1	A	1390	A	N3-C4	-5.47	1.31	1.34
1	A	1826	G	C6-O6	-5.47	1.19	1.24
1	A	510	U	C5-C6	-5.47	1.29	1.34
1	A	534	G	N1-C2	-5.47	1.33	1.37
1	A	780	A	C6-N1	-5.47	1.31	1.35
1	A	1305	U	C4-C5	-5.47	1.38	1.43
1	A	1844	G	C2-N3	-5.47	1.28	1.32
1	A	2043	U	C4-O4	-5.47	1.19	1.23
1	A	2057	A	N7-C5	-5.47	1.35	1.39
1	A	2309	G	C5-C4	-5.47	1.34	1.38
1	A	2890	C	N1-C6	-5.47	1.33	1.37
1	A	206	U	C4-O4	-5.47	1.19	1.23
1	A	2019	G	C2-N2	-5.47	1.29	1.34
1	A	527	G	N7-C5	-5.47	1.35	1.39
1	A	1209	U	N3-C4	-5.47	1.33	1.38
1	A	1285	A	C8-N7	-5.47	1.27	1.31
1	A	1307	G	C5-C6	-5.47	1.36	1.42
1	A	1408	G	C6-N1	-5.47	1.35	1.39
1	A	2091	C	C2-O2	-5.47	1.19	1.24
17	Q	17	VAL	CB-CG2	-5.47	1.41	1.52
1	A	1039	C	P-O5'	-5.47	1.54	1.59
1	A	2409	G	C8-N7	-5.47	1.27	1.30
1	A	2801	C	C5-C6	-5.47	1.29	1.34
1	A	354	A	N9-C4	5.47	1.41	1.37
1	A	899	U	N1-C2	-5.47	1.33	1.38
1	A	962	A	C8-N7	-5.47	1.27	1.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1733	A	N9-C4	-5.47	1.34	1.37
1	A	1801	C	C4-C5	-5.47	1.38	1.43
1	A	2068	U	N1-C6	-5.47	1.33	1.38
1	A	2117	A	N7-C5	-5.47	1.35	1.39
1	A	696	G	N1-C2	-5.46	1.33	1.37
1	A	785	C	C2-N3	-5.46	1.31	1.35
1	A	855	U	C4-C5	-5.46	1.38	1.43
1	A	1669	C	N1-C6	-5.46	1.33	1.37
1	A	1807	A	C8-N7	-5.46	1.27	1.31
1	A	2004	A	C5-C6	-5.46	1.36	1.41
1	A	2087	A	N9-C8	-5.46	1.33	1.37
1	A	2463	G	N7-C5	-5.46	1.35	1.39
1	A	1285	A	N1-C2	-5.46	1.29	1.34
1	A	2792	A	N7-C5	-5.46	1.35	1.39
1	A	18	C	C4-N4	-5.46	1.29	1.33
1	A	127	C	C2-N3	-5.46	1.31	1.35
1	A	559	A	N9-C8	-5.46	1.33	1.37
1	A	564	U	C2-N3	-5.46	1.33	1.37
1	A	598	G	N3-C4	-5.46	1.31	1.35
1	A	773	G	N7-C5	-5.46	1.35	1.39
1	A	1182	G	N1-C2	-5.46	1.33	1.37
1	A	1806	U	N1-C2	-5.46	1.33	1.38
1	A	2543	G	P-O5'	5.46	1.65	1.59
1	A	1037	A	C5-C4	-5.46	1.34	1.38
1	A	2279	G	N9-C8	-5.46	1.34	1.37
1	A	653	G	C5-C4	-5.46	1.34	1.38
1	A	975	U	C2-N3	-5.46	1.33	1.37
1	A	996	G	N1-C2	-5.46	1.33	1.37
1	A	998	G	C6-N1	-5.46	1.35	1.39
1	A	1244	G	N9-C4	-5.46	1.33	1.38
1	A	2319	U	P-O5'	-5.46	1.54	1.59
1	A	2900	C	C2-N3	-5.46	1.31	1.35
1	A	656	G	C8-N7	-5.46	1.27	1.30
1	A	742	U	N3-C4	-5.46	1.33	1.38
1	A	879	U	N3-C4	-5.46	1.33	1.38
1	A	1856	A	N7-C5	-5.46	1.35	1.39
1	A	2273	G	C8-N7	-5.46	1.27	1.30
1	A	2601	G	N1-C2	-5.46	1.33	1.37
28	2	6	TYR	CD1-CE1	-5.46	1.31	1.39
1	A	421	C	C2-O2	-5.46	1.19	1.24
1	A	1840	U	C4-C5	-5.46	1.38	1.43
1	A	2663	U	C2'-C1'	-5.46	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1176	U	N3-C4	-5.45	1.33	1.38
1	A	2893	A	N3-C4	-5.45	1.31	1.34
1	A	116	G	C6-N1	-5.45	1.35	1.39
1	A	806	A	C5-C6	-5.45	1.36	1.41
1	A	1040	A	N3-C4	-5.45	1.31	1.34
1	A	2741	G	N9-C8	-5.45	1.34	1.37
1	A	495	A	N1-C2	-5.45	1.29	1.34
1	A	537	A	N7-C5	-5.45	1.35	1.39
1	A	871	U	C4-C5	-5.45	1.38	1.43
1	A	875	G	C6-N1	-5.45	1.35	1.39
1	A	2005	A	C6-N1	-5.45	1.31	1.35
1	A	195	C	N1-C2	-5.45	1.34	1.40
1	A	1276	G	N9-C8	-5.45	1.34	1.37
1	A	2264	G	N7-C5	-5.45	1.35	1.39
1	A	2461	A	C5-C4	-5.45	1.34	1.38
1	A	1682	C	N1-C6	-5.45	1.33	1.37
1	A	2665	G	C5-C6	-5.45	1.36	1.42
1	A	96	G	C5-C6	-5.45	1.36	1.42
1	A	518	A	N7-C5	-5.45	1.35	1.39
1	A	2528	C	C2-O2	-5.45	1.19	1.24
1	A	2647	C	N3-C4	-5.45	1.30	1.33
1	A	357	U	C5-C6	-5.44	1.29	1.34
1	A	370	G	C8-N7	-5.44	1.27	1.30
1	A	243	U	C4-O4	-5.44	1.19	1.23
1	A	1269	A	N9-C4	-5.44	1.34	1.37
1	A	1813	A	C5-C4	-5.44	1.34	1.38
15	O	32	TYR	CD2-CE2	-5.44	1.31	1.39
1	A	1928	A	N7-C5	-5.44	1.35	1.39
1	A	2262	G	C5-C4	-5.44	1.34	1.38
1	A	2635	G	N9-C8	-5.44	1.34	1.37
1	A	681	G	C6-N1	-5.44	1.35	1.39
1	A	2051	C	C2-N3	-5.44	1.31	1.35
1	A	2478	A	N1-C2	-5.44	1.29	1.34
1	A	503	A	C6-N6	-5.44	1.29	1.33
1	A	914	G	N3-C4	-5.44	1.31	1.35
1	A	2079	G	N3-C4	-5.44	1.31	1.35
1	A	2535	G	C5-C4	-5.44	1.34	1.38
1	A	2615	G	N3-C4	-5.44	1.31	1.35
1	A	614	U	N1-C2	-5.43	1.33	1.38
1	A	2752	A	C6-N1	-5.43	1.31	1.35
1	A	2839	A	N9-C8	-5.43	1.33	1.37
1	A	421	C	C5-C6	-5.43	1.30	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	470	G	N3-C4	-5.43	1.31	1.35
1	A	778	G	N7-C5	-5.43	1.35	1.39
1	A	1004	A	P-O5'	5.43	1.65	1.59
1	A	1295	C	N1-C2	-5.43	1.34	1.40
1	A	1694	A	C6-N6	-5.43	1.29	1.33
1	A	1697	G	C5-C4	-5.43	1.34	1.38
1	A	1727	C	C4-C5	-5.43	1.38	1.43
1	A	1810	A	C8-N7	-5.43	1.27	1.31
1	A	2292	U	C4-O4	-5.43	1.19	1.23
1	A	2715	G	N9-C4	-5.43	1.33	1.38
1	A	604	G	C5-C6	-5.43	1.36	1.42
1	A	55	G	N7-C5	-5.43	1.35	1.39
1	A	620	G	N7-C5	-5.43	1.35	1.39
1	A	1709	A	N9-C4	-5.43	1.34	1.37
1	A	2260	A	N7-C5	-5.43	1.35	1.39
1	A	2387	A	N7-C5	-5.43	1.35	1.39
1	A	2462	A	N3-C4	-5.43	1.31	1.34
1	A	2619	G	C6-N1	-5.43	1.35	1.39
1	A	1025	A	N7-C5	5.43	1.42	1.39
1	A	677	A	N9-C4	-5.43	1.34	1.37
1	A	812	U	C2-N3	-5.43	1.33	1.37
1	A	2001	C	N1-C6	-5.43	1.33	1.37
1	A	2463	G	C6-N1	-5.43	1.35	1.39
1	A	2701	G	N9-C4	-5.43	1.33	1.38
1	A	631	U	N3-C4	-5.42	1.33	1.38
1	A	1298	G	N3-C4	-5.42	1.31	1.35
1	A	1725	G	N7-C5	-5.42	1.35	1.39
1	A	2753	U	N1-C6	-5.42	1.33	1.38
1	A	441	C	C2-O2	-5.42	1.19	1.24
1	A	1303	A	C8-N7	-5.42	1.27	1.31
1	A	784	A	N7-C5	-5.42	1.35	1.39
1	A	1678	A	C5-C4	-5.42	1.34	1.38
1	A	653	G	C6-N1	-5.42	1.35	1.39
1	A	827	A	C6-N1	-5.42	1.31	1.35
1	A	1271	G	C5-C4	-5.42	1.34	1.38
1	A	1355	A	C2-N3	-5.42	1.28	1.33
1	A	1647	A	C2-N3	-5.42	1.28	1.33
1	A	2028	A	N9-C4	-5.42	1.34	1.37
1	A	2079	G	C8-N7	-5.42	1.27	1.30
1	A	2474	G	C6-O6	-5.42	1.19	1.24
1	A	2804	G	C2-N3	-5.42	1.28	1.32
1	A	568	C	N1-C6	-5.42	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	672	A	C5-C4	-5.42	1.34	1.38
1	A	737	C	N1-C6	-5.42	1.33	1.37
1	A	896	U	N1-C2	-5.42	1.33	1.38
1	A	1251	A	C6-N6	-5.42	1.29	1.33
1	A	2102	U	N3-C4	-5.42	1.33	1.38
1	A	476	A	N7-C5	-5.42	1.36	1.39
1	A	246	U	C4-C5	-5.41	1.38	1.43
1	A	247	A	N9-C8	-5.41	1.33	1.37
1	A	1708	A	C5-C6	-5.41	1.36	1.41
1	A	2024	A	N9-C4	-5.41	1.34	1.37
1	A	2422	C	C2-N3	-5.41	1.31	1.35
1	A	2542	C	C5-C6	-5.41	1.30	1.34
1	A	2548	C	N3-C4	-5.41	1.30	1.33
1	A	2712	G	N9-C8	-5.41	1.34	1.37
1	A	73	A	C8-N7	-5.41	1.27	1.31
1	A	955	A	C6-N1	-5.41	1.31	1.35
1	A	2078	A	O3'-P	5.41	1.67	1.61
1	A	247	A	N3-C4	-5.41	1.31	1.34
1	A	541	G	N7-C5	-5.41	1.36	1.39
1	A	1384	G	C5-C4	-5.41	1.34	1.38
1	A	2577	G	C6-N1	-5.41	1.35	1.39
1	A	2744	G	C6-O6	-5.41	1.19	1.24
1	A	115	C	C4-C5	-5.41	1.38	1.43
1	A	533	C	P-O5'	5.41	1.65	1.59
1	A	721	A	C6-N6	-5.41	1.29	1.33
1	A	809	A	N9-C4	-5.41	1.34	1.37
1	A	1242	A	N1-C2	-5.41	1.29	1.34
1	A	1703	U	C4-C5	-5.41	1.38	1.43
1	A	2059	G	N3-C4	-5.41	1.31	1.35
1	A	2268	A	C6-N1	-5.41	1.31	1.35
1	A	1044	A	N1-C2	-5.41	1.29	1.34
1	A	1297	G	C2-N2	-5.41	1.29	1.34
1	A	1373	U	C2-N3	-5.41	1.33	1.37
1	A	1409	U	N3-C4	-5.41	1.33	1.38
1	A	2069	A	N3-C4	-5.41	1.31	1.34
1	A	19	G	C5-C4	-5.41	1.34	1.38
1	A	1827	C	N3-C4	-5.41	1.30	1.33
1	A	2107	G	N7-C5	-5.41	1.36	1.39
1	A	2568	A	C8-N7	-5.41	1.27	1.31
1	A	2669	G	N9-C8	-5.41	1.34	1.37
1	A	1649	C	N3-C4	-5.40	1.30	1.33
1	A	2673	C	N1-C2	5.40	1.45	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	73	A	C5-C6	-5.40	1.36	1.41
1	A	267	G	N9-C8	-5.40	1.34	1.37
1	A	849	A	N9-C8	-5.40	1.33	1.37
1	A	1344	A	N3-C4	-5.40	1.31	1.34
1	A	1729	C	N3-C4	-5.40	1.30	1.33
1	A	1811	A	N9-C8	-5.40	1.33	1.37
1	A	2412	C	C4-C5	-5.40	1.38	1.43
1	A	533	C	C3'-O3'	5.40	1.49	1.42
1	A	1840	U	C4-O4	-5.40	1.19	1.23
1	A	2034	U	C4-O4	-5.40	1.19	1.23
1	A	12	U	C4-C5	-5.40	1.38	1.43
1	A	700	A	C5-C4	-5.40	1.34	1.38
1	A	841	C	C5-C6	-5.40	1.30	1.34
1	A	863	G	C6-O6	-5.40	1.19	1.24
1	A	1370	C	C4-C5	-5.40	1.38	1.43
1	A	1431	U	C2-N3	-5.40	1.33	1.37
1	A	2710	C	C2-N3	-5.40	1.31	1.35
1	A	2850	G	C8-N7	-5.40	1.27	1.30
1	A	1617	A	N9-C4	-5.40	1.34	1.37
1	A	1650	G	N9-C8	-5.40	1.34	1.37
1	A	2378	G	C8-N7	-5.40	1.27	1.30
1	A	524	A	N9-C8	-5.39	1.33	1.37
1	A	2022	U	C5-C6	-5.39	1.29	1.34
1	A	2305	A	C5-C4	-5.39	1.34	1.38
1	A	2421	C	N1-C6	-5.39	1.33	1.37
1	A	36	G	C2-N3	-5.39	1.28	1.32
1	A	987	U	N1-C2	-5.39	1.33	1.38
1	A	2577	G	C2-N3	-5.39	1.28	1.32
1	A	2861	U	C4-C5	-5.39	1.38	1.43
1	A	41	A	N7-C5	-5.39	1.36	1.39
1	A	120	G	C5-C4	-5.39	1.34	1.38
1	A	383	A	C6-N6	-5.39	1.29	1.33
1	A	781	C	N1-C6	-5.39	1.33	1.37
1	A	1364	C	N3-C4	-5.39	1.30	1.33
1	A	1927	A	N3-C4	-5.39	1.31	1.34
1	A	209	U	C4-O4	-5.39	1.19	1.23
1	A	192	G	C6-O6	-5.39	1.19	1.24
1	A	461	A	C5-C6	-5.39	1.36	1.41
1	A	1306	A	C5-C6	-5.39	1.36	1.41
1	A	1378	U	C2-O2	-5.39	1.17	1.22
1	A	2740	A	N7-C5	-5.39	1.36	1.39
1	A	75	G	N3-C4	-5.38	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	270	C	N3-C4	-5.38	1.30	1.33
1	A	543	G	P-O5'	-5.38	1.54	1.59
1	A	1699	A	N3-C4	-5.38	1.31	1.34
1	A	1852	G	N9-C4	-5.38	1.33	1.38
1	A	192	G	N7-C5	-5.38	1.36	1.39
1	A	849	A	N1-C2	-5.38	1.29	1.34
1	A	1243	G	N7-C5	-5.38	1.36	1.39
1	A	2050	A	N9-C8	-5.38	1.33	1.37
1	A	2708	C	N3-C4	-5.38	1.30	1.33
1	A	1846	A	N3-C4	-5.38	1.31	1.34
1	A	2233	C	N1-C6	-5.38	1.33	1.37
1	A	2516	G	C2'-C1'	-5.38	1.47	1.53
1	A	1697	G	N7-C5	-5.38	1.36	1.39
1	A	2485	U	N3-C4	-5.38	1.33	1.38
1	A	248	G	N9-C8	-5.38	1.34	1.37
1	A	302	A	C6-N6	-5.38	1.29	1.33
1	A	653	G	N9-C8	-5.38	1.34	1.37
1	A	681	G	C5-C4	-5.38	1.34	1.38
1	A	1355	A	C6-N1	-5.38	1.31	1.35
1	A	1413	C	N1-C6	-5.38	1.33	1.37
1	A	1733	A	N3-C4	-5.38	1.31	1.34
1	A	2015	C	N3-C4	-5.38	1.30	1.33
1	A	2082	C	C4-C5	-5.38	1.38	1.43
1	A	504	G	N9-C4	-5.38	1.33	1.38
1	A	518	A	N3-C4	-5.38	1.31	1.34
1	A	1296	C	N1-C2	-5.38	1.34	1.40
1	A	618	A	C6-N1	-5.38	1.31	1.35
1	A	618	A	P-OP2	-5.38	1.39	1.49
1	A	727	G	C2-N2	-5.37	1.29	1.34
1	A	1712	A	N1-C2	-5.37	1.29	1.34
1	A	2423	G	C6-N1	-5.37	1.35	1.39
1	A	2536	G	N1-C2	-5.37	1.33	1.37
1	A	576	U	C4-O4	-5.37	1.19	1.23
1	A	1015	C	C5-C6	-5.37	1.30	1.34
1	A	1021	G	N9-C8	-5.37	1.34	1.37
1	A	1250	G	C5-C4	-5.37	1.34	1.38
1	A	1797	G	N9-C4	-5.37	1.33	1.38
1	A	2279	G	N7-C5	-5.37	1.36	1.39
1	A	2394	G	C6-N1	-5.37	1.35	1.39
1	A	2599	A	N9-C8	-5.37	1.33	1.37
1	A	2744	G	C5-C4	-5.37	1.34	1.38
1	A	2896	A	C5-C6	-5.37	1.36	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	439	U	N1-C6	-5.37	1.33	1.38
1	A	716	C	C2-N3	-5.37	1.31	1.35
1	A	602	G	N3-C4	-5.37	1.31	1.35
1	A	678	A	N7-C5	-5.37	1.36	1.39
1	A	833	A	N9-C8	-5.37	1.33	1.37
1	A	1015	C	C3'-O3'	5.37	1.49	1.42
1	A	1698	A	C8-N7	-5.37	1.27	1.31
1	A	2115	A	C5-C4	-5.37	1.34	1.38
1	A	2809	G	N7-C5	-5.37	1.36	1.39
1	A	2888	A	C5'-C4'	5.37	1.57	1.51
1	A	213	C	N1-C6	-5.37	1.33	1.37
1	A	992	A	C5-C4	-5.37	1.34	1.38
1	A	1806	U	C5-C6	-5.37	1.29	1.34
1	A	2668	A	N1-C2	5.37	1.39	1.34
1	A	546	A	N3-C4	-5.37	1.31	1.34
1	A	884	U	C5-C6	-5.37	1.29	1.34
1	A	890	G	C6-N1	-5.37	1.35	1.39
1	A	1742	A	C8-N7	-5.37	1.27	1.31
1	A	2305	A	C8-N7	-5.37	1.27	1.31
1	A	2628	C	N3-C4	-5.37	1.30	1.33
1	A	2725	U	C5-C6	-5.37	1.29	1.34
1	A	16	G	C8-N7	-5.36	1.27	1.30
1	A	569	U	C2-N3	-5.36	1.33	1.37
1	A	712	U	C2-O2	-5.36	1.17	1.22
1	A	809	A	N1-C2	-5.36	1.29	1.34
1	A	2456	G	C3'-C2'	5.36	1.58	1.52
1	A	1695	G	N1-C2	-5.36	1.33	1.37
1	A	127	C	C4-C5	-5.36	1.38	1.43
1	A	237	U	N1-C2	5.36	1.43	1.38
1	A	250	G	N7-C5	-5.36	1.36	1.39
1	A	595	G	N3-C4	-5.36	1.31	1.35
1	A	908	A	N1-C2	5.36	1.39	1.34
1	A	968	A	N7-C5	-5.36	1.36	1.39
1	A	2072	C	C5-C6	-5.36	1.30	1.34
1	A	2075	G	C8-N7	-5.36	1.27	1.30
1	A	2511	G	N9-C8	-5.36	1.34	1.37
1	A	517	A	N1-C2	-5.36	1.29	1.34
1	A	578	G	N1-C2	-5.36	1.33	1.37
1	A	884	U	N3-C4	-5.36	1.33	1.38
1	A	964	U	N1-C6	-5.36	1.33	1.38
1	A	2382	C	P-O5'	5.36	1.65	1.59
1	A	2455	G	N7-C5	-5.36	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2531	U	P-OP1	-5.36	1.39	1.49
1	A	2754	G	C8-N7	-5.36	1.27	1.30
1	A	2843	A	C6-N1	-5.36	1.31	1.35
1	A	539	G	C8-N7	-5.35	1.27	1.30
1	A	2724	G	N7-C5	-5.35	1.36	1.39
1	A	1259	U	N1-C6	-5.35	1.33	1.38
1	A	1268	C	P-O5'	5.35	1.65	1.59
1	A	1313	G	N1-C2	-5.35	1.33	1.37
1	A	1316	G	C5-C4	-5.35	1.34	1.38
1	A	2014	G	N1-C2	-5.35	1.33	1.37
1	A	2805	A	N3-C4	-5.35	1.31	1.34
1	A	351	G	N1-C2	-5.35	1.33	1.37
1	A	1733	A	C5-C6	-5.35	1.36	1.41
1	A	2463	G	N1-C2	-5.35	1.33	1.37
1	A	1335	C	C5-C6	-5.35	1.30	1.34
1	A	2068	U	N3-C4	-5.35	1.33	1.38
1	A	2626	G	N9-C8	-5.35	1.34	1.37
1	A	2867	U	N1-C6	-5.35	1.33	1.38
1	A	612	U	C5-C6	-5.35	1.29	1.34
1	A	885	C	N1-C6	-5.35	1.33	1.37
1	A	2377	C	C2-N3	-5.35	1.31	1.35
1	A	2717	A	N7-C5	-5.35	1.36	1.39
2	B	74	G	N1-C2	-5.35	1.33	1.37
1	A	621	A	N7-C5	-5.35	1.36	1.39
1	A	2474	G	C2-N2	-5.35	1.29	1.34
1	A	2793	G	C2-N3	-5.35	1.28	1.32
2	B	96	A	N7-C5	-5.35	1.36	1.39
8	H	45	TYR	CD1-CE1	-5.35	1.31	1.39
1	A	42	G	N1-C2	-5.34	1.33	1.37
1	A	1747	G	C6-N1	-5.34	1.35	1.39
1	A	2294	A	C8-N7	-5.34	1.27	1.31
1	A	2618	C	N3-C4	-5.34	1.30	1.33
1	A	2719	C	C2-N3	-5.34	1.31	1.35
1	A	185	A	C5-C4	-5.34	1.35	1.38
1	A	1321	A	N3-C4	5.34	1.38	1.34
1	A	2104	A	C5-C6	-5.34	1.36	1.41
1	A	348	C	C5-C6	-5.34	1.30	1.34
1	A	894	A	N7-C5	-5.34	1.36	1.39
1	A	1379	A	C6-N1	-5.34	1.31	1.35
1	A	2635	G	C6-N1	-5.34	1.35	1.39
1	A	2747	U	N1-C6	-5.34	1.33	1.38
1	A	520	G	C8-N7	-5.34	1.27	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	628	G	C6-O6	-5.34	1.19	1.24
1	A	853	G	C5-C6	-5.34	1.37	1.42
1	A	1689	G	N9-C8	-5.34	1.34	1.37
1	A	2280	G	N9-C4	-5.34	1.33	1.38
1	A	2670	G	C6-N1	-5.34	1.35	1.39
1	A	444	C	C2-N3	-5.34	1.31	1.35
1	A	472	C	N3-C4	-5.34	1.30	1.33
1	A	2007	G	N7-C5	-5.34	1.36	1.39
1	A	2699	U	C4-C5	-5.34	1.38	1.43
1	A	2901	U	C4'-C3'	-5.34	1.47	1.52
1	A	492	G	C5-C6	-5.34	1.37	1.42
1	A	802	G	C6-N1	-5.34	1.35	1.39
1	A	1257	G	N9-C4	-5.34	1.33	1.38
1	A	1434	U	C2-N3	-5.34	1.34	1.37
1	A	1615	G	C6-N1	-5.34	1.35	1.39
1	A	1652	A	C5-C4	-5.34	1.35	1.38
1	A	1792	C	N1-C6	-5.34	1.33	1.37
1	A	2102	U	N1-C6	-5.34	1.33	1.38
1	A	2512	G	N1-C2	-5.34	1.33	1.37
1	A	2515	A	C6-N1	-5.34	1.31	1.35
1	A	2313	A	N9-C4	-5.33	1.34	1.37
1	A	2646	U	N3-C4	-5.33	1.33	1.38
1	A	37	C	C5-C6	-5.33	1.30	1.34
1	A	548	A	C6-N6	5.33	1.38	1.33
1	A	711	G	N7-C5	-5.33	1.36	1.39
1	A	784	A	N9-C4	-5.33	1.34	1.37
1	A	817	G	C5-C6	-5.33	1.37	1.42
1	A	1021	G	C5-C4	-5.33	1.34	1.38
1	A	1256	U	C5-C6	-5.33	1.29	1.34
1	A	2013	G	N9-C8	-5.33	1.34	1.37
1	A	2514	G	C6-N1	-5.33	1.35	1.39
1	A	569	U	C4-O4	-5.33	1.19	1.23
1	A	771	G	C5-C4	-5.33	1.34	1.38
1	A	1331	C	N1-C6	-5.33	1.33	1.37
1	A	1382	C	N1-C6	-5.33	1.33	1.37
1	A	1647	A	C5-C4	-5.33	1.35	1.38
1	A	1647	A	N3-C4	-5.33	1.31	1.34
1	A	1714	C	C2-O2	-5.33	1.19	1.24
1	A	1742	A	C6-N6	-5.33	1.29	1.33
1	A	833	A	C8-N7	-5.33	1.27	1.31
1	A	1700	C	C2-N3	5.33	1.40	1.35
1	A	1845	U	C2-O2	-5.33	1.17	1.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	E	52	LYS	CB-CG	-5.33	1.38	1.52
1	A	376	A	C2-N3	-5.33	1.28	1.33
1	A	789	C	N3-C4	-5.33	1.30	1.33
1	A	1202	C	N1-C6	-5.33	1.33	1.37
1	A	1314	A	N3-C4	-5.33	1.31	1.34
1	A	1336	G	C5-C6	-5.33	1.37	1.42
1	A	1707	U	N1-C2	-5.33	1.33	1.38
1	A	1789	A	N3-C4	-5.33	1.31	1.34
1	A	2052	C	C2'-C1'	-5.33	1.47	1.53
1	A	2258	U	C2-N3	-5.33	1.34	1.37
1	A	2316	G	C5-C4	-5.33	1.34	1.38
1	A	2525	C	N1-C2	5.33	1.45	1.40
1	A	2743	U	C4-C5	-5.33	1.38	1.43
2	B	80	G	N1-C2	-5.33	1.33	1.37
1	A	651	A	N9-C4	-5.33	1.34	1.37
1	A	1748	G	C5-C4	-5.33	1.34	1.38
1	A	2046	U	C2-N3	5.33	1.41	1.37
1	A	634	C	C4'-C3'	-5.33	1.47	1.52
1	A	1350	U	N1-C6	-5.33	1.33	1.38
1	A	1409	U	C2-N3	-5.33	1.34	1.37
1	A	1620	G	C5-C4	-5.33	1.34	1.38
1	A	1803	G	N1-C2	-5.33	1.33	1.37
1	A	1207	G	N9-C8	-5.32	1.34	1.37
1	A	1259	U	C4-C5	-5.32	1.38	1.43
1	A	1368	C	C4-C5	-5.32	1.38	1.43
1	A	1814	A	N3-C4	-5.32	1.31	1.34
1	A	2090	C	C3'-O3'	5.32	1.49	1.42
1	A	2759	G	N7-C5	-5.32	1.36	1.39
1	A	1300	G	N9-C4	-5.32	1.33	1.38
1	A	2477	A	C3'-C2'	5.32	1.58	1.52
1	A	2551	G	C5-C4	-5.32	1.34	1.38
1	A	248	G	C8-N7	-5.32	1.27	1.30
1	A	376	A	N9-C4	5.32	1.41	1.37
1	A	430	A	N7-C5	-5.32	1.36	1.39
1	A	973	A	C8-N7	-5.32	1.27	1.31
1	A	601	G	C6-N1	-5.32	1.35	1.39
1	A	711	G	N3-C4	-5.32	1.31	1.35
1	A	884	U	C2-N3	-5.32	1.34	1.37
1	A	1320	G	N3-C4	-5.32	1.31	1.35
1	A	1346	G	C6-N1	-5.32	1.35	1.39
1	A	2087	A	C5-C4	-5.32	1.35	1.38
1	A	2107	G	C8-N7	-5.32	1.27	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	23	G	N1-C2	-5.32	1.33	1.37
1	A	659	A	N9-C4	-5.32	1.34	1.37
1	A	733	U	N1-C2	-5.32	1.33	1.38
1	A	2522	G	N3-C4	-5.32	1.31	1.35
1	A	870	C	C2-O2	-5.31	1.19	1.24
1	A	978	A	C6-N1	-5.31	1.31	1.35
1	A	1300	G	C5-C6	-5.31	1.37	1.42
1	A	1830	A	N3-C4	-5.31	1.31	1.34
1	A	1849	G	N1-C2	-5.31	1.33	1.37
1	A	1991	G	N3-C4	-5.31	1.31	1.35
1	A	2272	U	C4-O4	-5.31	1.19	1.23
1	A	2749	G	C5-C4	-5.31	1.34	1.38
1	A	359	A	C6-N1	-5.31	1.31	1.35
1	A	597	U	C5-C6	-5.31	1.29	1.34
1	A	1470	G	N7-C5	-5.31	1.36	1.39
1	A	1824	C	C5-C6	-5.31	1.30	1.34
1	A	2598	U	C4'-C3'	-5.31	1.47	1.52
1	A	2744	G	C6-N1	-5.31	1.35	1.39
29	3	64	TYR	CD1-CE1	-5.31	1.31	1.39
1	A	725	A	C5-C6	-5.31	1.36	1.41
1	A	841	C	C4-C5	-5.31	1.38	1.43
1	A	985	A	C5-C4	-5.31	1.35	1.38
1	A	2372	G	N1-C2	-5.31	1.33	1.37
1	A	2713	G	N7-C5	-5.31	1.36	1.39
1	A	116	G	C6-O6	-5.31	1.19	1.24
1	A	775	A	N3-C4	-5.31	1.31	1.34
1	A	1608	C	N3-C4	-5.31	1.30	1.33
1	A	1777	G	N3-C4	-5.31	1.31	1.35
1	A	2471	G	N9-C8	-5.31	1.34	1.37
1	A	2650	G	N3-C4	-5.31	1.31	1.35
1	A	177	G	C6-N1	-5.31	1.35	1.39
1	A	601	G	N7-C5	-5.31	1.36	1.39
1	A	614	U	C2-O2	-5.31	1.17	1.22
1	A	776	C	C2-N3	-5.31	1.31	1.35
1	A	819	A	N9-C8	-5.31	1.33	1.37
1	A	906	A	N3-C4	5.31	1.38	1.34
1	A	1009	C	C4-C5	-5.31	1.38	1.43
1	A	1169	G	C5-C4	-5.31	1.34	1.38
1	A	1834	G	N9-C4	-5.31	1.33	1.38
1	A	2536	G	N3-C4	-5.31	1.31	1.35
1	A	1279	C	N1-C6	-5.31	1.33	1.37
1	A	1375	G	C5-C4	-5.31	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2669	G	C8-N7	-5.31	1.27	1.30
1	A	809	A	C8-N7	-5.30	1.27	1.31
1	A	1277	C	N1-C6	-5.30	1.33	1.37
1	A	1282	A	C2-N3	-5.30	1.28	1.33
1	A	1819	G	C6-N1	-5.30	1.35	1.39
1	A	2003	U	C2-N3	-5.30	1.34	1.37
1	A	2793	G	N1-C2	-5.30	1.33	1.37
1	A	959	C	P-O5'	5.30	1.65	1.59
1	A	1417	G	N3-C4	-5.30	1.31	1.35
1	A	1185	U	N1-C2	5.30	1.43	1.38
1	A	1416	U	C5-C6	-5.30	1.29	1.34
1	A	2474	G	C8-N7	-5.30	1.27	1.30
1	A	1057	A	N3-C4	-5.30	1.31	1.34
1	A	1673	A	N9-C8	-5.30	1.33	1.37
1	A	2043	U	N1-C6	5.30	1.42	1.38
1	A	2381	A	C5-C6	-5.30	1.36	1.41
1	A	2646	U	C2'-C1'	5.30	1.59	1.53
1	A	533	C	N3-C4	-5.30	1.30	1.33
1	A	1307	G	N9-C8	-5.30	1.34	1.37
1	A	2045	A	N1-C2	-5.30	1.29	1.34
1	A	2261	G	N1-C2	-5.30	1.33	1.37
1	A	817	G	C6-O6	-5.30	1.19	1.24
1	A	872	U	C4'-C3'	5.30	1.58	1.53
1	A	1011	U	N3-C4	-5.30	1.33	1.38
1	A	1058	U	C2-N3	-5.30	1.34	1.37
1	A	1804	U	C4-O4	-5.30	1.19	1.23
1	A	2703	C	C4-N4	-5.30	1.29	1.33
1	A	2107	G	N1-C2	-5.29	1.33	1.37
1	A	245	G	N9-C8	-5.29	1.34	1.37
1	A	770	G	C5-C4	-5.29	1.34	1.38
1	A	1980	A	C6-N1	-5.29	1.31	1.35
1	A	2630	G	C8-N7	-5.29	1.27	1.30
1	A	128	C	N1-C6	-5.29	1.33	1.37
1	A	523	A	N3-C4	-5.29	1.31	1.34
1	A	531	C	N1-C6	-5.29	1.33	1.37
1	A	555	C	O3'-P	5.29	1.67	1.61
1	A	1285	A	N9-C8	-5.29	1.33	1.37
1	A	1373	U	N1-C2	-5.29	1.33	1.38
1	A	1814	A	N1-C2	-5.29	1.29	1.34
1	A	2060	A	C6-N1	-5.29	1.31	1.35
1	A	2655	U	N1-C6	5.29	1.42	1.38
1	A	996	G	C5-C6	-5.29	1.37	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2539	C	C5-C6	-5.29	1.30	1.34
1	A	361	U	O3'-P	5.29	1.67	1.61
1	A	1745	A	N9-C4	-5.29	1.34	1.37
1	A	1751	G	C6-N1	-5.29	1.35	1.39
1	A	1852	G	C2-N3	-5.29	1.28	1.32
1	A	2393	A	C5-C6	-5.29	1.36	1.41
1	A	1838	G	N9-C8	-5.29	1.34	1.37
1	A	120	G	C5-C6	-5.29	1.37	1.42
1	A	515	G	C2-N3	-5.29	1.28	1.32
1	A	1408	G	N9-C8	-5.29	1.34	1.37
1	A	1418	G	C6-N1	-5.29	1.35	1.39
1	A	2250	A	N7-C5	-5.29	1.36	1.39
1	A	2510	C	C2-N3	-5.29	1.31	1.35
1	A	444	C	N1-C6	-5.28	1.33	1.37
1	A	730	A	N1-C2	-5.28	1.29	1.34
1	A	1395	G	C8-N7	-5.28	1.27	1.30
1	A	2042	A	N3-C4	-5.28	1.31	1.34
1	A	2289	U	C4-O4	-5.28	1.19	1.23
1	A	831	C	C5-C6	-5.28	1.30	1.34
1	A	1702	C	C2-N3	-5.28	1.31	1.35
1	A	2484	U	C4-O4	-5.28	1.19	1.23
1	A	540	G	N9-C4	-5.28	1.33	1.38
1	A	1681	U	C2-N3	-5.28	1.34	1.37
1	A	2529	G	C6-N1	-5.28	1.35	1.39
1	A	2638	C	N1-C6	-5.28	1.33	1.37
1	A	519	G	C5-C6	-5.28	1.37	1.42
1	A	815	G	N9-C4	-5.28	1.33	1.38
1	A	2392	G	C5-C6	-5.28	1.37	1.42
1	A	2616	A	C5-C4	-5.28	1.35	1.38
1	A	662	G	N9-C8	-5.28	1.34	1.37
1	A	1188	A	C5'-C4'	5.28	1.57	1.51
1	A	2717	A	N3-C4	-5.28	1.31	1.34
1	A	2755	U	N3-C4	-5.28	1.33	1.38
1	A	602	G	C2-N3	-5.28	1.28	1.32
1	A	1019	A	C8-N7	-5.28	1.27	1.31
1	A	2264	G	C5-C6	-5.28	1.37	1.42
1	A	2516	G	N7-C5	-5.28	1.36	1.39
1	A	2744	G	N1-C2	-5.28	1.33	1.37
1	A	2571	G	C8-N7	-5.27	1.27	1.30
1	A	125	A	C2-N3	-5.27	1.28	1.33
1	A	183	A	N7-C5	-5.27	1.36	1.39
1	A	536	A	C5-C4	-5.27	1.35	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	848	U	C4-C5	-5.27	1.38	1.43
1	A	908	A	C6-N1	-5.27	1.31	1.35
1	A	1400	C	N1-C6	-5.27	1.33	1.37
1	A	1698	A	C5-C6	-5.27	1.36	1.41
1	A	2095	U	C4-O4	-5.27	1.19	1.23
1	A	2395	C	C4-C5	-5.27	1.38	1.43
1	A	2879	G	N7-C5	-5.27	1.36	1.39
1	A	357	U	N3-C4	-5.27	1.33	1.38
1	A	905	U	C4-C5	-5.27	1.38	1.43
1	A	2063	C	C4-C5	-5.27	1.38	1.43
1	A	2877	G	C5-C4	-5.27	1.34	1.38
1	A	992	A	N9-C4	-5.27	1.34	1.37
1	A	1407	C	C4-C5	-5.27	1.38	1.43
1	A	1679	A	C6-N1	-5.27	1.31	1.35
1	A	2372	G	C5-C4	-5.27	1.34	1.38
1	A	2545	A	C5'-C4'	5.27	1.57	1.51
1	A	2662	U	C2-O2	-5.27	1.17	1.22
1	A	120	G	N1-C2	-5.27	1.33	1.37
1	A	205	U	N3-C4	-5.27	1.33	1.38
1	A	718	C	C4-N4	-5.27	1.29	1.33
1	A	719	G	C5-C6	-5.27	1.37	1.42
1	A	885	C	C2-N3	-5.27	1.31	1.35
1	A	983	G	N9-C8	-5.27	1.34	1.37
1	A	1244	G	C6-N1	-5.27	1.35	1.39
1	A	2077	C	O5'-C5'	5.27	1.52	1.44
1	A	2458	U	N1-C6	-5.27	1.33	1.38
1	A	1667	G	N1-C2	-5.27	1.33	1.37
1	A	2104	A	C6-N6	-5.27	1.29	1.33
1	A	2485	U	C4-C5	-5.27	1.38	1.43
1	A	2547	C	C4-C5	-5.27	1.38	1.43
1	A	250	G	N9-C4	-5.26	1.33	1.38
1	A	638	U	C4-C5	-5.26	1.38	1.43
1	A	730	A	C6-N1	-5.26	1.31	1.35
1	A	1017	A	N1-C2	-5.26	1.29	1.34
1	A	2617	A	N9-C8	-5.26	1.33	1.37
1	A	2777	A	N9-C4	-5.26	1.34	1.37
1	A	710	C	C2-N3	-5.26	1.31	1.35
1	A	743	C	N1-C6	-5.26	1.33	1.37
1	A	1388	C	C4-C5	-5.26	1.38	1.43
1	A	2269	G	N1-C2	-5.26	1.33	1.37
1	A	192	G	C8-N7	-5.26	1.27	1.30
1	A	1006	G	C4'-C3'	5.26	1.58	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1677	G	N3-C4	-5.26	1.31	1.35
1	A	2319	U	C5-C6	-5.26	1.29	1.34
1	A	2714	U	N1-C2	-5.26	1.33	1.38
1	A	258	A	N9-C8	-5.26	1.33	1.37
1	A	263	G	N1-C2	-5.26	1.33	1.37
1	A	654	C	C4-C5	-5.26	1.38	1.43
1	A	718	C	C4-C5	-5.26	1.38	1.43
1	A	1224	U	C2-O2	-5.26	1.17	1.22
1	A	2099	G	C6-O6	-5.26	1.19	1.24
1	A	2589	U	N3-C4	-5.26	1.33	1.38
1	A	2621	C	N1-C6	-5.26	1.33	1.37
1	A	700	A	C6-N6	-5.26	1.29	1.33
1	A	805	G	C5-C4	-5.26	1.34	1.38
1	A	178	A	C5-C6	-5.26	1.36	1.41
1	A	255	G	N1-C2	-5.26	1.33	1.37
1	A	727	G	N9-C4	-5.26	1.33	1.38
1	A	801	A	N7-C5	-5.26	1.36	1.39
1	A	1280	U	N1-C2	-5.26	1.33	1.38
1	A	2114	G	C8-N7	-5.26	1.27	1.30
1	A	2435	U	C2-N3	-5.26	1.34	1.37
1	A	2918	A	N7-C5	-5.26	1.36	1.39
1	A	854	G	C2-N3	-5.25	1.28	1.32
1	A	2033	C	C2-N3	-5.25	1.31	1.35
1	A	2509	A	C6-N6	-5.25	1.29	1.33
1	A	2856	U	C4-O4	-5.25	1.19	1.23
1	A	2897	A	C5-C4	-5.25	1.35	1.38
1	A	193	A	N9-C4	-5.25	1.34	1.37
1	A	741	G	C8-N7	-5.25	1.27	1.30
1	A	885	C	C4-C5	-5.25	1.38	1.43
1	A	1350	U	C2-N3	-5.25	1.34	1.37
1	A	1776	A	N9-C4	-5.25	1.34	1.37
1	A	2535	G	N7-C5	-5.25	1.36	1.39
1	A	2736	G	C8-N7	-5.25	1.27	1.30
1	A	638	U	C4-O4	-5.25	1.19	1.23
1	A	709	U	C4-C5	-5.25	1.38	1.43
1	A	1174	U	C3'-C2'	-5.25	1.47	1.52
1	A	1722	A	N9-C8	-5.25	1.33	1.37
1	A	2529	G	C6-O6	-5.25	1.19	1.24
1	A	670	G	C6-N1	-5.25	1.35	1.39
1	A	2808	A	N3-C4	-5.25	1.31	1.34
1	A	245	G	C5-C4	-5.25	1.34	1.38
1	A	613	G	N3-C4	-5.25	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	741	G	C5-C4	-5.25	1.34	1.38
1	A	772	A	N7-C5	-5.25	1.36	1.39
1	A	889	U	C4-C5	-5.25	1.38	1.43
1	A	1836	A	N9-C4	-5.25	1.34	1.37
1	A	1852	G	C6-N1	-5.25	1.35	1.39
1	A	2513	G	N3-C4	-5.25	1.31	1.35
1	A	2649	U	C4-O4	-5.25	1.19	1.23
1	A	202	A	C5-C4	-5.25	1.35	1.38
1	A	619	U	N3-C4	-5.25	1.33	1.38
1	A	709	U	C5-C6	-5.25	1.29	1.34
1	A	788	A	C6-N1	-5.25	1.31	1.35
1	A	1393	C	C2-N3	-5.25	1.31	1.35
1	A	2847	U	N3-C4	-5.25	1.33	1.38
1	A	604	G	N9-C8	-5.25	1.34	1.37
1	A	994	A	C5-C4	-5.24	1.35	1.38
1	A	2228	C	N3-C4	-5.24	1.30	1.33
1	A	17	G	N9-C8	-5.24	1.34	1.37
1	A	240	C	C4-C5	-5.24	1.38	1.43
1	A	67	G	N3-C4	-5.24	1.31	1.35
1	A	1379	A	N9-C8	-5.24	1.33	1.37
1	A	1470	G	N1-C2	-5.24	1.33	1.37
1	A	2052	C	N1-C6	-5.24	1.34	1.37
2	B	82	A	N9-C4	-5.24	1.34	1.37
1	A	2020	U	C2-N3	-5.24	1.34	1.37
1	A	2455	G	C2-N3	-5.24	1.28	1.32
1	A	2846	A	N3-C4	-5.24	1.31	1.34
1	A	207	A	N9-C4	-5.24	1.34	1.37
1	A	2262	G	C6-N1	-5.24	1.35	1.39
1	A	2895	G	C5-C4	-5.24	1.34	1.38
1	A	23	G	C8-N7	-5.24	1.27	1.30
1	A	125	A	C8-N7	-5.24	1.27	1.31
1	A	2026	C	C2-O2	-5.24	1.19	1.24
1	A	2051	C	N3-C4	-5.24	1.30	1.33
1	A	2701	G	C6-O6	-5.24	1.19	1.24
1	A	2705	U	C4-C5	-5.24	1.38	1.43
1	A	2755	U	C2-O2	-5.24	1.17	1.22
1	A	208	G	C6-O6	-5.23	1.19	1.24
1	A	710	C	C5-C6	-5.23	1.30	1.34
1	A	1016	G	N1-C2	-5.23	1.33	1.37
1	A	2512	G	C5-C4	-5.23	1.34	1.38
1	A	2572	G	C2-N3	-5.23	1.28	1.32
1	A	2910	G	N1-C2	-5.23	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	258	A	C8-N7	-5.23	1.27	1.31
1	A	749	G	C5-C4	-5.23	1.34	1.38
1	A	2624	G	N1-C2	-5.23	1.33	1.37
1	A	2635	G	C8-N7	-5.23	1.27	1.30
1	A	779	A	C8-N7	-5.23	1.27	1.31
1	A	816	G	C5-C6	-5.23	1.37	1.42
1	A	347	U	N1-C6	-5.23	1.33	1.38
1	A	498	G	C5-C4	-5.23	1.34	1.38
1	A	637	U	C4-C5	-5.23	1.38	1.43
1	A	1606	C	N1-C6	-5.23	1.34	1.37
1	A	1613	G	C6-N1	-5.23	1.35	1.39
1	A	2259	C	C2-N3	-5.23	1.31	1.35
1	A	2292	U	C4-C5	-5.23	1.38	1.43
1	A	2836	C	C2-N3	-5.23	1.31	1.35
1	A	1370	C	C4-N4	-5.23	1.29	1.33
1	A	1793	C	N3-C4	-5.23	1.30	1.33
1	A	2299	U	C4-C5	-5.23	1.38	1.43
1	A	2522	G	C5-C4	-5.23	1.34	1.38
1	A	2592	A	N9-C8	-5.23	1.33	1.37
1	A	1392	G	C2-N3	-5.22	1.28	1.32
1	A	2060	A	N1-C2	-5.22	1.29	1.34
1	A	2454	C	C3'-O3'	5.22	1.49	1.42
1	A	2616	A	C6-N1	-5.22	1.31	1.35
1	A	2719	C	N1-C6	-5.22	1.34	1.37
1	A	250	G	C2-N3	-5.22	1.28	1.32
1	A	340	C	N3-C4	-5.22	1.30	1.33
1	A	360	A	N3-C4	-5.22	1.31	1.34
1	A	516	A	N9-C8	-5.22	1.33	1.37
1	A	585	C	C2-N3	-5.22	1.31	1.35
1	A	853	G	C5-C4	-5.22	1.34	1.38
1	A	1365	G	C5-C6	-5.22	1.37	1.42
1	A	1613	G	N9-C8	-5.22	1.34	1.37
1	A	1820	G	C8-N7	-5.22	1.27	1.30
1	A	610	U	C4-C5	-5.22	1.38	1.43
1	A	783	G	N9-C8	-5.22	1.34	1.37
1	A	910	C	C5-C6	-5.22	1.30	1.34
1	A	17	G	N3-C4	-5.22	1.31	1.35
1	A	539	G	N7-C5	-5.22	1.36	1.39
1	A	1740	G	N7-C5	-5.22	1.36	1.39
1	A	2472	G	C4'-C3'	-5.22	1.47	1.52
1	A	2634	G	N9-C4	-5.22	1.33	1.38
1	A	372	A	N3-C4	-5.22	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	488	G	C6-O6	-5.22	1.19	1.24
1	A	640	G	C8-N7	-5.22	1.27	1.30
1	A	1242	A	O3'-P	-5.22	1.54	1.61
1	A	1310	A	N9-C4	-5.22	1.34	1.37
1	A	1976	G	N1-C2	-5.22	1.33	1.37
1	A	1978	U	C4-C5	-5.22	1.38	1.43
1	A	2293	A	N1-C2	-5.22	1.29	1.34
1	A	535	G	P-O5'	5.22	1.65	1.59
1	A	783	G	N7-C5	-5.22	1.36	1.39
1	A	865	A	N9-C4	-5.22	1.34	1.37
1	A	1752	C	C2-N3	-5.22	1.31	1.35
1	A	512	A	C6-N1	-5.21	1.31	1.35
1	A	579	U	C5-C6	-5.21	1.29	1.34
1	A	707	G	C2-N2	-5.21	1.29	1.34
1	A	2536	G	N9-C8	-5.21	1.34	1.37
1	A	2670	G	N3-C4	-5.21	1.31	1.35
1	A	543	G	N9-C8	-5.21	1.34	1.37
1	A	2709	U	N3-C4	-5.21	1.33	1.38
1	A	2738	A	C5-C4	-5.21	1.35	1.38
1	A	350	G	N9-C8	5.21	1.41	1.37
1	A	485	A	C5-C6	-5.21	1.36	1.41
1	A	806	A	C6-N6	-5.21	1.29	1.33
1	A	813	G	N9-C8	-5.21	1.34	1.37
1	A	1611	C	C2-N3	-5.21	1.31	1.35
1	A	2462	A	C8-N7	-5.21	1.27	1.31
1	A	2859	G	C2-N3	-5.21	1.28	1.32
1	A	226	A	N3-C4	-5.21	1.31	1.34
1	A	534	G	C4'-C3'	5.21	1.58	1.53
1	A	818	U	N1-C2	-5.21	1.33	1.38
1	A	1173	A	C6-N6	-5.21	1.29	1.33
1	A	1807	A	N3-C4	-5.21	1.31	1.34
4	D	180	VAL	CB-CG2	-5.21	1.42	1.52
1	A	251	G	C8-N7	-5.21	1.27	1.30
1	A	956	A	P-O5'	-5.21	1.54	1.59
1	A	1230	G	C6-O6	-5.21	1.19	1.24
1	A	1279	C	C4-C5	-5.21	1.38	1.43
1	A	2034	U	N1-C6	-5.21	1.33	1.38
1	A	2114	G	N1-C2	-5.21	1.33	1.37
1	A	575	G	C5-C6	-5.21	1.37	1.42
1	A	1001	A	C5-C6	-5.21	1.36	1.41
1	A	1069	G	C8-N7	-5.21	1.27	1.30
1	A	1245	G	N9-C8	-5.21	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1393	C	C4-C5	-5.21	1.38	1.43
1	A	2075	G	C6-O6	-5.21	1.19	1.24
1	A	2278	G	C2-N3	-5.21	1.28	1.32
1	A	2622	G	N3-C4	-5.21	1.31	1.35
1	A	2794	C	C4-C5	-5.21	1.38	1.43
1	A	715	A	C5-C6	-5.21	1.36	1.41
1	A	987	U	C4-O4	-5.21	1.19	1.23
1	A	206	U	N1-C2	-5.20	1.33	1.38
1	A	723	C	C2-O2	-5.20	1.19	1.24
1	A	816	G	C6-O6	-5.20	1.19	1.24
1	A	1791	G	N1-C2	-5.20	1.33	1.37
1	A	2718	C	N1-C6	-5.20	1.34	1.37
1	A	2745	G	C2-N3	-5.20	1.28	1.32
1	A	374	U	N3-C4	-5.20	1.33	1.38
1	A	869	G	C6-N1	-5.20	1.35	1.39
1	A	370	G	N7-C5	-5.20	1.36	1.39
1	A	509	G	C2-N3	-5.20	1.28	1.32
1	A	651	A	C5-C6	-5.20	1.36	1.41
1	A	861	C	C5'-C4'	-5.20	1.45	1.51
1	A	872	U	N3-C4	-5.20	1.33	1.38
1	A	1004	A	N7-C5	-5.20	1.36	1.39
1	A	1367	C	P-O5'	5.20	1.65	1.59
1	A	2265	G	N9-C8	-5.20	1.34	1.37
1	A	2528	C	O3'-P	-5.20	1.54	1.61
1	A	2626	G	C8-N7	-5.20	1.27	1.30
1	A	2721	G	N1-C2	-5.20	1.33	1.37
1	A	446	G	C6-O6	-5.20	1.19	1.24
1	A	708	G	O5'-C5'	5.20	1.52	1.44
1	A	1070	A	N1-C2	-5.20	1.29	1.34
1	A	1723	A	N3-C4	-5.20	1.31	1.34
1	A	1871	U	C2-N3	-5.20	1.34	1.37
1	A	2368	G	C6-N1	-5.20	1.35	1.39
1	A	2666	A	N9-C4	-5.20	1.34	1.37
1	A	2762	G	C5-C4	-5.20	1.34	1.38
1	A	2880	A	N3-C4	-5.20	1.31	1.34
1	A	2881	C	N3-C4	-5.20	1.30	1.33
1	A	208	G	N9-C8	-5.20	1.34	1.37
1	A	1075	G	C5-C4	-5.20	1.34	1.38
1	A	1405	G	N1-C2	-5.20	1.33	1.37
1	A	94	A	C5-C6	-5.20	1.36	1.41
1	A	1063	U	N3-C4	-5.20	1.33	1.38
1	A	1653	A	N7-C5	-5.20	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	647	G	N9-C8	-5.19	1.34	1.37
1	A	2628	C	C2-N3	-5.19	1.31	1.35
1	A	2797	C	C4-N4	-5.19	1.29	1.33
3	C	224	VAL	CB-CG2	-5.19	1.42	1.52
1	A	115	C	C2-O2	-5.19	1.19	1.24
1	A	887	A	N7-C5	-5.19	1.36	1.39
1	A	1050	C	C1'-N1	5.19	1.56	1.48
1	A	1296	C	P-O5'	-5.19	1.54	1.59
1	A	1334	C	C4-C5	-5.19	1.38	1.43
1	A	1405	G	C6-N1	-5.19	1.35	1.39
1	A	1711	G	N1-C2	-5.19	1.33	1.37
1	A	2104	A	N3-C4	-5.19	1.31	1.34
1	A	2621	C	N3-C4	-5.19	1.30	1.33
1	A	527	G	C8-N7	-5.19	1.27	1.30
1	A	1984	C	N3-C4	-5.19	1.30	1.33
1	A	2044	C	C5-C6	-5.19	1.30	1.34
1	A	2900	C	C5-C6	-5.19	1.30	1.34
1	A	214	G	N1-C2	-5.19	1.33	1.37
1	A	668	C	P-O5'	5.19	1.65	1.59
1	A	1352	C	C4-N4	-5.19	1.29	1.33
1	A	1686	G	C6-N1	-5.19	1.35	1.39
1	A	1997	A	N7-C5	-5.19	1.36	1.39
1	A	2353	U	C2-N3	-5.19	1.34	1.37
1	A	1714	C	N1-C6	-5.19	1.34	1.37
1	A	1791	G	N3-C4	-5.19	1.31	1.35
1	A	2033	C	C2-O2	-5.19	1.19	1.24
1	A	642	U	N3-C4	-5.18	1.33	1.38
1	A	711	G	C6-N1	-5.18	1.35	1.39
1	A	720	A	N9-C8	-5.18	1.33	1.37
1	A	1782	A	N9-C8	-5.18	1.33	1.37
1	A	2056	G	O3'-P	-5.18	1.54	1.61
1	A	2571	G	C6-N1	-5.18	1.35	1.39
1	A	486	G	C5-C4	-5.18	1.34	1.38
1	A	1206	G	N7-C5	-5.18	1.36	1.39
1	A	2083	G	P-O5'	5.18	1.65	1.59
1	A	2699	U	C5-C6	-5.18	1.29	1.34
1	A	2862	C	C4-C5	-5.18	1.38	1.43
1	A	1201	G	C2'-C1'	-5.18	1.47	1.53
1	A	1253	G	N1-C2	-5.18	1.33	1.37
1	A	1999	G	C6-N1	-5.18	1.35	1.39
1	A	2055	U	P-O5'	-5.18	1.54	1.59
1	A	2713	G	C2-N3	-5.18	1.28	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2806	U	N3-C4	-5.18	1.33	1.38
1	A	640	G	N9-C4	-5.18	1.33	1.38
1	A	670	G	N7-C5	-5.18	1.36	1.39
1	A	839	A	C5-C6	-5.18	1.36	1.41
1	A	1305	U	C5-C6	-5.18	1.29	1.34
1	A	2262	G	N3-C4	-5.18	1.31	1.35
1	A	21	A	C5-C4	-5.18	1.35	1.38
1	A	347	U	C5-C6	-5.18	1.29	1.34
1	A	1063	U	C2-N3	-5.18	1.34	1.37
1	A	1320	G	C8-N7	-5.18	1.27	1.30
1	A	1751	G	N7-C5	-5.18	1.36	1.39
1	A	2449	C	N1-C6	-5.18	1.34	1.37
1	A	2712	G	C2-N3	-5.18	1.28	1.32
1	A	16	G	N9-C8	-5.17	1.34	1.37
1	A	611	U	C4-O4	-5.17	1.19	1.23
1	A	718	C	C2-O2	-5.17	1.19	1.24
1	A	1179	C	P-O5'	-5.17	1.54	1.59
1	A	2438	A	C5-C6	-5.17	1.36	1.41
1	A	2541	U	C4-O4	-5.17	1.19	1.23
1	A	2601	G	C8-N7	-5.17	1.27	1.30
1	A	514	G	C6-O6	-5.17	1.19	1.24
1	A	129	C	C5-C6	-5.17	1.30	1.34
1	A	992	A	N7-C5	-5.17	1.36	1.39
1	A	1008	C	C2-O2	-5.17	1.19	1.24
1	A	1022	G	C6-N1	-5.17	1.35	1.39
1	A	1198	G	N9-C4	-5.17	1.33	1.38
1	A	1257	G	N9-C8	-5.17	1.34	1.37
1	A	1601	U	C2-N3	-5.17	1.34	1.37
1	A	2455	G	N9-C8	-5.17	1.34	1.37
1	A	648	G	N3-C4	5.17	1.39	1.35
1	A	1206	G	C5-C4	-5.17	1.34	1.38
1	A	1731	G	N7-C5	-5.17	1.36	1.39
1	A	2649	U	N3-C4	-5.17	1.33	1.38
1	A	440	C	N3-C4	-5.17	1.30	1.33
1	A	456	G	N7-C5	-5.17	1.36	1.39
1	A	596	G	N3-C4	-5.17	1.31	1.35
1	A	1057	A	C5-C6	-5.17	1.36	1.41
1	A	1645	G	N9-C8	-5.17	1.34	1.37
1	A	383	A	C6-N1	-5.17	1.31	1.35
1	A	510	U	C4-C5	-5.17	1.39	1.43
1	A	859	C	C2-N3	-5.17	1.31	1.35
1	A	1734	A	N3-C4	-5.17	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2577	G	N3-C4	-5.17	1.31	1.35
1	A	2888	A	C4'-C3'	5.17	1.58	1.53
1	A	617	A	N9-C4	-5.17	1.34	1.37
1	A	1045	A	N3-C4	-5.17	1.31	1.34
1	A	2530	A	C5-C6	-5.17	1.36	1.41
1	A	525	A	N7-C5	-5.16	1.36	1.39
1	A	670	G	C8-N7	-5.16	1.27	1.30
1	A	675	G	N7-C5	-5.16	1.36	1.39
1	A	683	G	N3-C4	-5.16	1.31	1.35
1	A	724	C	C4-N4	-5.16	1.29	1.33
1	A	886	A	C5-C4	-5.16	1.35	1.38
1	A	913	U	C4-O4	-5.16	1.19	1.23
1	A	1238	U	N1-C2	-5.16	1.33	1.38
1	A	1371	U	C2-N3	-5.16	1.34	1.37
1	A	2482	G	N7-C5	-5.16	1.36	1.39
1	A	2513	G	C2-N3	-5.16	1.28	1.32
1	A	2543	G	N9-C8	-5.16	1.34	1.37
1	A	2798	C	N1-C6	-5.16	1.34	1.37
1	A	2894	C	C4'-C3'	5.16	1.58	1.53
1	A	871	U	N3-C4	-5.16	1.33	1.38
1	A	1014	U	C1'-N1	5.16	1.56	1.48
1	A	129	C	N1-C6	-5.16	1.34	1.37
1	A	379	C	C5-C6	-5.16	1.30	1.34
1	A	530	C	C2-O2	-5.16	1.19	1.24
1	A	787	U	C2-N3	-5.16	1.34	1.37
1	A	1183	G	C5-C4	-5.16	1.34	1.38
1	A	2714	U	C4-C5	-5.16	1.39	1.43
1	A	2887	G	O3'-P	5.16	1.67	1.61
1	A	263	G	C2-N3	-5.16	1.28	1.32
1	A	503	A	C2-N3	-5.16	1.28	1.33
1	A	1384	G	C2-N3	-5.16	1.28	1.32
1	A	2289	U	N3-C4	-5.16	1.33	1.38
1	A	2572	G	C5-C4	-5.16	1.34	1.38
1	A	2888	A	C6-N6	-5.16	1.29	1.33
31	a	405	A	N9-C4	5.16	1.41	1.37
1	A	2017	C	C4-C5	-5.16	1.38	1.43
1	A	359	A	N3-C4	-5.16	1.31	1.34
1	A	535	G	N9-C4	-5.16	1.33	1.38
1	A	640	G	N9-C8	-5.16	1.34	1.37
1	A	1011	U	C4-O4	-5.16	1.19	1.23
1	A	1342	C	N1-C6	-5.16	1.34	1.37
1	A	1792	C	N3-C4	-5.16	1.30	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	14	A	N9-C8	-5.15	1.33	1.37
1	A	2483	C	C5-C6	-5.15	1.30	1.34
1	A	2884	G	C6-N1	-5.15	1.35	1.39
9	I	6	THR	CB-CG2	-5.15	1.35	1.52
21	U	46	TYR	CD2-CE2	-5.15	1.31	1.39
1	A	669	C	C4'-C3'	5.15	1.58	1.53
1	A	1649	C	C5-C6	-5.15	1.30	1.34
1	A	1731	G	C8-N7	-5.15	1.27	1.30
1	A	1815	C	C4-C5	-5.15	1.38	1.43
1	A	2602	C	C4-C5	-5.15	1.38	1.43
8	H	18	VAL	CB-CG2	-5.15	1.42	1.52
1	A	681	G	N7-C5	-5.15	1.36	1.39
1	A	1336	G	C6-O6	-5.15	1.19	1.24
1	A	1385	G	N9-C4	-5.15	1.33	1.38
1	A	2257	G	N7-C5	-5.15	1.36	1.39
1	A	2540	A	N3-C4	-5.15	1.31	1.34
3	C	51	VAL	CB-CG2	-5.15	1.42	1.52
1	A	569	U	N3-C4	-5.15	1.33	1.38
1	A	841	C	N3-C4	-5.15	1.30	1.33
1	A	2814	C	N1-C2	-5.15	1.35	1.40
1	A	517	A	C5-C4	-5.15	1.35	1.38
1	A	800	G	C6-N1	-5.15	1.35	1.39
1	A	915	U	N3-C4	-5.15	1.33	1.38
1	A	1232	G	C2-N2	-5.15	1.29	1.34
1	A	1777	G	C5-C4	-5.15	1.34	1.38
1	A	2040	A	N3-C4	-5.15	1.31	1.34
1	A	2616	A	N9-C8	-5.15	1.33	1.37
1	A	207	A	C6-N6	-5.15	1.29	1.33
1	A	719	G	N3-C4	-5.15	1.31	1.35
1	A	1289	A	N7-C5	-5.15	1.36	1.39
1	A	1650	G	N7-C5	-5.15	1.36	1.39
1	A	2012	G	N1-C2	-5.15	1.33	1.37
1	A	2839	A	N9-C4	-5.15	1.34	1.37
1	A	51	G	N1-C2	-5.14	1.33	1.37
1	A	1295	C	C4-C5	-5.14	1.38	1.43
1	A	1337	A	N3-C4	-5.14	1.31	1.34
1	A	2627	A	C5-C6	-5.14	1.36	1.41
1	A	1034	A	P-O5'	-5.14	1.54	1.59
1	A	1346	G	N9-C8	-5.14	1.34	1.37
1	A	1364	C	C4-C5	-5.14	1.38	1.43
1	A	2811	U	C4'-C3'	5.14	1.58	1.53
1	A	440	C	N1-C6	-5.14	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	778	G	C6-O6	-5.14	1.19	1.24
1	A	1328	C	C5-C6	-5.14	1.30	1.34
1	A	1329	G	N9-C8	-5.14	1.34	1.37
1	A	1838	G	C5-C4	-5.14	1.34	1.38
1	A	1842	A	N3-C4	-5.14	1.31	1.34
1	A	1851	G	C5-C4	-5.14	1.34	1.38
1	A	1987	A	N9-C4	-5.14	1.34	1.37
1	A	2086	A	C5-C4	-5.14	1.35	1.38
1	A	2317	G	N9-C4	-5.14	1.33	1.38
1	A	2701	G	N7-C5	-5.14	1.36	1.39
1	A	2734	C	N3-C4	-5.14	1.30	1.33
1	A	2812	U	O3'-P	5.14	1.67	1.61
1	A	176	A	C8-N7	-5.14	1.27	1.31
1	A	617	A	N3-C4	-5.14	1.31	1.34
1	A	817	G	C8-N7	-5.14	1.27	1.30
1	A	982	G	N7-C5	-5.14	1.36	1.39
1	A	1782	A	N9-C4	-5.14	1.34	1.37
1	A	2640	U	N1-C6	-5.14	1.33	1.38
1	A	476	A	N9-C8	-5.14	1.33	1.37
1	A	608	C	C4-C5	-5.14	1.38	1.43
1	A	728	U	C5-C6	-5.14	1.29	1.34
1	A	1327	C	C4-C5	-5.14	1.38	1.43
1	A	2422	C	N3-C4	-5.14	1.30	1.33
1	A	2495	A	C6-N1	-5.13	1.31	1.35
1	A	250	G	C6-O6	-5.13	1.19	1.24
1	A	498	G	N7-C5	-5.13	1.36	1.39
1	A	1417	G	C2-N3	-5.13	1.28	1.32
1	A	2265	G	C6-N1	-5.13	1.35	1.39
1	A	2362	A	N7-C5	-5.13	1.36	1.39
1	A	826	A	N9-C8	-5.13	1.33	1.37
1	A	1239	C	C4-C5	-5.13	1.38	1.43
1	A	2031	G	C6-O6	-5.13	1.19	1.24
1	A	954	A	C1'-N9	-5.13	1.39	1.46
1	A	1357	G	C5-C6	-5.13	1.37	1.42
1	A	68	A	C5-C4	-5.13	1.35	1.38
1	A	207	A	C6-N1	-5.13	1.31	1.35
1	A	478	A	C5-C4	-5.13	1.35	1.38
1	A	913	U	N3-C4	-5.13	1.33	1.38
1	A	1331	C	N3-C4	-5.13	1.30	1.33
1	A	2485	U	C2-O2	-5.13	1.17	1.22
1	A	2754	G	N7-C5	-5.13	1.36	1.39
1	A	2858	G	N1-C2	-5.13	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	777	C	N1-C6	-5.13	1.34	1.37
1	A	2063	C	P-OP1	-5.13	1.40	1.49
1	A	2733	A	C5-C4	-5.13	1.35	1.38
1	A	125	A	C6-N6	-5.12	1.29	1.33
1	A	2004	A	C6-N1	-5.12	1.31	1.35
1	A	195	C	C2-O2	-5.12	1.19	1.24
1	A	1305	U	C4-O4	-5.12	1.19	1.23
1	A	1610	G	N1-C2	-5.12	1.33	1.37
1	A	1648	C	C2-N3	-5.12	1.31	1.35
1	A	1698	A	O5'-C5'	5.12	1.52	1.44
1	A	2363	A	C3'-O3'	5.12	1.49	1.42
2	B	80	G	N3-C4	-5.12	1.31	1.35
1	A	2051	C	C2-O2	-5.12	1.19	1.24
1	A	2523	C	C2-N3	-5.12	1.31	1.35
1	A	2610	G	C8-N7	-5.12	1.27	1.30
1	A	646	A	C5-C4	-5.12	1.35	1.38
1	A	994	A	N1-C2	-5.12	1.29	1.34
1	A	2750	C	N1-C6	-5.12	1.34	1.37
1	A	666	A	N7-C5	-5.12	1.36	1.39
1	A	840	C	C2-O2	-5.12	1.19	1.24
1	A	870	C	C2-N3	-5.12	1.31	1.35
1	A	1245	G	C8-N7	-5.12	1.27	1.30
1	A	1652	A	N9-C4	-5.12	1.34	1.37
1	A	300	G	C5-C4	-5.12	1.34	1.38
1	A	341	G	N7-C5	-5.12	1.36	1.39
1	A	2105	C	C2-N3	-5.12	1.31	1.35
1	A	2531	U	C2-N3	-5.12	1.34	1.37
1	A	2726	C	C4-C5	-5.12	1.38	1.43
1	A	2840	A	C5-C6	-5.12	1.36	1.41
1	A	582	G	C5'-C4'	5.12	1.57	1.51
1	A	782	C	N1-C6	-5.12	1.34	1.37
1	A	2293	A	C5-C6	-5.12	1.36	1.41
1	A	51	G	C5-C4	-5.11	1.34	1.38
1	A	215	G	N1-C2	-5.11	1.33	1.37
1	A	505	U	C4-C5	-5.11	1.39	1.43
1	A	799	U	C2-N3	-5.11	1.34	1.37
1	A	807	U	N1-C6	-5.11	1.33	1.38
1	A	1806	U	C2-O2	-5.11	1.17	1.22
1	A	2054	G	C6-N1	-5.11	1.35	1.39
1	A	2538	U	N3-C4	-5.11	1.33	1.38
1	A	2569	A	C8-N7	-5.11	1.27	1.31
1	A	709	U	N1-C2	-5.11	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1954	A	N7-C5	-5.11	1.36	1.39
1	A	481	C	N3-C4	-5.11	1.30	1.33
1	A	1432	A	C5-C4	-5.11	1.35	1.38
1	A	1975	G	C6-N1	-5.11	1.35	1.39
1	A	2381	A	N9-C4	5.11	1.41	1.37
1	A	827	A	N1-C2	-5.11	1.29	1.34
1	A	817	G	N9-C4	-5.11	1.33	1.38
1	A	2293	A	C6-N6	-5.11	1.29	1.33
1	A	2418	G	C3'-O3'	5.11	1.49	1.42
1	A	2473	G	N1-C2	-5.11	1.33	1.37
1	A	2482	G	C5-C6	5.11	1.47	1.42
1	A	2597	G	C5-C4	-5.11	1.34	1.38
1	A	2767	A	N7-C5	-5.11	1.36	1.39
1	A	609	U	N3-C4	-5.11	1.33	1.38
1	A	788	A	C5-C6	-5.11	1.36	1.41
1	A	1176	U	N1-C6	-5.11	1.33	1.38
1	A	1399	C	N1-C6	-5.11	1.34	1.37
1	A	5	A	C5-C4	-5.10	1.35	1.38
1	A	55	G	N3-C4	-5.10	1.31	1.35
1	A	673	G	C8-N7	-5.10	1.27	1.30
1	A	271	C	N1-C6	-5.10	1.34	1.37
1	A	489	A	C6-N6	-5.10	1.29	1.33
1	A	1831	A	N9-C4	-5.10	1.34	1.37
1	A	2088	G	N1-C2	-5.10	1.33	1.37
1	A	2372	G	N9-C4	-5.10	1.33	1.38
1	A	2451	C	C4-C5	-5.10	1.38	1.43
1	A	2546	U	C1'-N1	5.10	1.56	1.48
1	A	2724	G	C8-N7	-5.10	1.27	1.30
1	A	2752	A	N7-C5	-5.10	1.36	1.39
1	A	2884	G	N7-C5	-5.10	1.36	1.39
1	A	867	U	O3'-P	5.10	1.67	1.61
1	A	1740	G	N9-C4	-5.10	1.33	1.38
1	A	2038	U	C2-O2	-5.10	1.17	1.22
1	A	2608	G	C5-C6	-5.10	1.37	1.42
1	A	2718	C	C5-C6	-5.10	1.30	1.34
1	A	617	A	C8-N7	-5.10	1.27	1.31
1	A	1366	U	C2-O2	-5.10	1.17	1.22
1	A	2096	G	C5-C4	-5.10	1.34	1.38
1	A	2297	G	C8-N7	-5.10	1.27	1.30
1	A	2387	A	N3-C4	-5.10	1.31	1.34
14	N	49	VAL	CB-CG2	-5.10	1.42	1.52
1	A	36	G	C2-N2	-5.10	1.29	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	745	G	C6-N1	-5.10	1.35	1.39
1	A	2020	U	N3-C4	-5.10	1.33	1.38
1	A	2743	U	C2-O2	-5.10	1.17	1.22
2	B	97	G	C8-N7	-5.10	1.27	1.30
1	A	1839	G	N3-C4	-5.10	1.31	1.35
1	A	210	A	C6-N6	-5.09	1.29	1.33
1	A	646	A	C6-N6	-5.09	1.29	1.33
1	A	696	G	C5-C4	-5.09	1.34	1.38
1	A	995	U	C4-O4	-5.09	1.19	1.23
1	A	1181	G	C6-N1	-5.09	1.35	1.39
1	A	1697	G	C5-C6	-5.09	1.37	1.42
1	A	1834	G	C5-C6	-5.09	1.37	1.42
1	A	1199	A	C6-N1	-5.09	1.31	1.35
1	A	1429	G	C2-N2	-5.09	1.29	1.34
1	A	2272	U	C5-C6	-5.09	1.29	1.34
1	A	2479	C	C4-N4	-5.09	1.29	1.33
1	A	51	G	N9-C8	-5.09	1.34	1.37
1	A	711	G	C5-C4	-5.09	1.34	1.38
1	A	911	A	C2-N3	-5.09	1.28	1.33
1	A	1018	A	C5-C4	-5.09	1.35	1.38
1	A	1392	G	N3-C4	-5.09	1.31	1.35
1	A	1851	G	N1-C2	-5.09	1.33	1.37
1	A	123	G	C6-N1	-5.09	1.35	1.39
1	A	1021	G	C6-O6	-5.09	1.19	1.24
1	A	2239	A	N3-C4	-5.09	1.31	1.34
1	A	2543	G	C2-N3	-5.09	1.28	1.32
1	A	540	G	C5-C4	-5.09	1.34	1.38
1	A	1291	A	P-O5'	-5.09	1.54	1.59
1	A	1731	G	C5-C4	-5.09	1.34	1.38
1	A	2254	A	N7-C5	-5.09	1.36	1.39
1	A	523	A	N9-C8	-5.09	1.33	1.37
1	A	527	G	C6-N1	-5.09	1.35	1.39
1	A	694	G	C6-N1	-5.09	1.35	1.39
1	A	742	U	N1-C6	-5.09	1.33	1.38
1	A	920	A	N9-C4	-5.09	1.34	1.37
1	A	1714	C	C5-C6	-5.09	1.30	1.34
1	A	2357	G	N7-C5	-5.09	1.36	1.39
1	A	2702	A	N1-C2	-5.09	1.29	1.34
1	A	585	C	C5-C6	-5.08	1.30	1.34
1	A	1263	A	C5-C6	-5.08	1.36	1.41
1	A	1292	A	C6-N1	-5.08	1.31	1.35
1	A	1326	C	C2-N3	-5.08	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1375	G	C2-N3	-5.08	1.28	1.32
1	A	775	A	N9-C8	-5.08	1.33	1.37
1	A	1345	A	C6-N1	-5.08	1.31	1.35
1	A	2594	G	C5'-C4'	5.08	1.57	1.51
1	A	2635	G	N9-C4	-5.08	1.33	1.38
1	A	2713	G	N1-C2	-5.08	1.33	1.37
1	A	2727	G	C8-N7	-5.08	1.27	1.30
1	A	2895	G	C4'-C3'	5.08	1.58	1.53
1	A	96	G	N9-C4	-5.08	1.33	1.38
1	A	201	C	C2-O2	-5.08	1.19	1.24
1	A	515	G	N3-C4	-5.08	1.31	1.35
1	A	870	C	C4-C5	-5.08	1.38	1.43
1	A	901	G	N9-C4	-5.08	1.33	1.38
1	A	1018	A	C5-C6	-5.08	1.36	1.41
1	A	1243	G	N9-C8	-5.08	1.34	1.37
1	A	1649	C	C2-N3	-5.08	1.31	1.35
1	A	2289	U	C2-N3	-5.08	1.34	1.37
1	A	2513	G	N7-C5	-5.08	1.36	1.39
1	A	2591	A	N9-C4	-5.08	1.34	1.37
1	A	54	G	C2-N3	-5.08	1.28	1.32
1	A	1037	A	C8-N7	-5.08	1.27	1.31
1	A	1797	G	N1-C2	-5.08	1.33	1.37
1	A	517	A	N9-C8	-5.08	1.33	1.37
1	A	636	A	C6-N1	-5.08	1.31	1.35
1	A	1740	G	N1-C2	-5.08	1.33	1.37
1	A	2087	A	C6-N1	-5.08	1.31	1.35
1	A	2292	U	C2-O2	-5.08	1.17	1.22
1	A	1012	G	C2-N3	-5.08	1.28	1.32
1	A	2097	G	C5-C4	-5.08	1.34	1.38
1	A	2248	G	C5-C4	-5.08	1.34	1.38
1	A	2464	C	N3-C4	-5.08	1.30	1.33
1	A	2568	A	N1-C2	-5.08	1.29	1.34
1	A	2658	G	N7-C5	-5.08	1.36	1.39
1	A	263	G	C5'-C4'	5.07	1.57	1.51
1	A	542	A	C5-C4	-5.07	1.35	1.38
1	A	635	G	C2-N2	-5.07	1.29	1.34
1	A	1065	A	C5-C4	-5.07	1.35	1.38
1	A	1717	G	N1-C2	-5.07	1.33	1.37
1	A	1931	G	C5-C4	-5.07	1.34	1.38
1	A	2397	G	N9-C8	-5.07	1.34	1.37
1	A	2576	G	C6-N1	-5.07	1.35	1.39
1	A	2626	G	N1-C2	-5.07	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	626	G	N3-C4	5.07	1.39	1.35
1	A	1615	G	C8-N7	-5.07	1.27	1.30
1	A	1796	A	C6-N1	-5.07	1.31	1.35
1	A	30	G	C5-C4	-5.07	1.34	1.38
1	A	54	G	N3-C4	-5.07	1.31	1.35
1	A	358	G	C5-C4	-5.07	1.34	1.38
1	A	740	G	C5-C6	-5.07	1.37	1.42
1	A	749	G	C6-N1	-5.07	1.36	1.39
1	A	1012	G	N3-C4	-5.07	1.31	1.35
1	A	2798	C	C4-C5	-5.07	1.38	1.43
1	A	410	G	C8-N7	-5.07	1.27	1.30
1	A	983	G	C5-C6	-5.07	1.37	1.42
1	A	1273	G	C2'-C1'	-5.07	1.47	1.53
1	A	2622	G	N9-C4	-5.07	1.33	1.38
1	A	2895	G	O5'-C5'	5.07	1.52	1.44
1	A	682	A	C6-N1	-5.07	1.32	1.35
1	A	876	G	C5-C6	-5.07	1.37	1.42
1	A	1006	G	C6-N1	-5.07	1.36	1.39
1	A	1049	C	C5'-C4'	5.07	1.57	1.51
1	A	1958	U	C2-N3	-5.07	1.34	1.37
1	A	2088	G	C5-C4	-5.07	1.34	1.38
1	A	2419	A	C4'-C3'	5.07	1.58	1.53
1	A	38	A	C5-C4	-5.07	1.35	1.38
1	A	596	G	C5-C6	-5.07	1.37	1.42
1	A	772	A	N9-C4	-5.07	1.34	1.37
1	A	823	G	C5-C4	-5.07	1.34	1.38
1	A	1266	G	C8-N7	-5.07	1.27	1.30
1	A	1817	C	N1-C6	-5.07	1.34	1.37
1	A	2750	C	C2-N3	-5.07	1.31	1.35
1	A	683	G	N7-C5	-5.06	1.36	1.39
1	A	746	G	C6-N1	-5.06	1.36	1.39
1	A	1842	A	C6-N6	-5.06	1.29	1.33
1	A	2111	C	C5-C6	-5.06	1.30	1.34
1	A	673	G	N1-C2	-5.06	1.33	1.37
1	A	1187	A	C3'-C2'	5.06	1.58	1.52
1	A	1405	G	C2-N3	-5.06	1.28	1.32
1	A	1783	G	C5-C4	-5.06	1.34	1.38
1	A	1826	G	C8-N7	-5.06	1.27	1.30
1	A	1840	U	N3-C4	-5.06	1.33	1.38
1	A	2002	G	C5-C4	-5.06	1.34	1.38
1	A	854	G	C6-O6	-5.06	1.19	1.24
1	A	2747	U	C5-C6	-5.06	1.29	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	393	G	C2'-C1'	5.06	1.58	1.53
1	A	633	A	C6-N1	-5.06	1.32	1.35
1	A	982	G	C8-N7	-5.06	1.27	1.30
1	A	1193	U	C2-N3	-5.06	1.34	1.37
1	A	2609	G	N1-C2	-5.06	1.33	1.37
1	A	679	G	N1-C2	-5.06	1.33	1.37
1	A	732	C	C2-N3	-5.06	1.31	1.35
1	A	748	U	C2-N3	-5.06	1.34	1.37
1	A	984	G	C2-N2	-5.06	1.29	1.34
1	A	1315	C	C4-C5	-5.06	1.39	1.43
1	A	1807	A	C5-C6	-5.06	1.36	1.41
1	A	2030	A	C5-C6	-5.06	1.36	1.41
1	A	2114	G	C6-N1	-5.06	1.36	1.39
1	A	2391	C	O3'-P	5.06	1.67	1.61
1	A	630	G	O3'-P	5.06	1.67	1.61
1	A	1061	G	N1-C2	-5.06	1.33	1.37
1	A	1179	C	N3-C4	-5.06	1.30	1.33
1	A	1273	G	N3-C4	-5.06	1.31	1.35
1	A	1417	G	C5-C6	-5.06	1.37	1.42
1	A	1975	G	N1-C2	-5.06	1.33	1.37
1	A	2284	U	N3-C4	-5.06	1.33	1.38
1	A	26	G	C8-N7	-5.05	1.27	1.30
1	A	599	A	N9-C8	-5.05	1.33	1.37
1	A	777	C	C4-C5	-5.05	1.39	1.43
1	A	1610	G	C6-N1	-5.05	1.36	1.39
1	A	1791	G	N9-C8	-5.05	1.34	1.37
1	A	1819	G	N1-C2	-5.05	1.33	1.37
1	A	1979	A	C6-N6	-5.05	1.29	1.33
1	A	2010	U	N3-C4	-5.05	1.33	1.38
1	A	2670	G	N1-C2	-5.05	1.33	1.37
1	A	2753	U	N1-C2	-5.05	1.34	1.38
1	A	14	A	C6-N1	-5.05	1.32	1.35
1	A	512	A	N9-C8	-5.05	1.33	1.37
1	A	784	A	N3-C4	-5.05	1.31	1.34
1	A	789	C	C2-N3	-5.05	1.31	1.35
1	A	1664	G	C5-C4	-5.05	1.34	1.38
1	A	1819	G	N3-C4	-5.05	1.31	1.35
1	A	363	A	N9-C8	-5.05	1.33	1.37
1	A	1045	A	C4'-C3'	-5.05	1.47	1.52
1	A	1436	C	N1-C6	-5.05	1.34	1.37
1	A	1642	C	N3-C4	-5.05	1.30	1.33
1	A	2269	G	N7-C5	-5.05	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2271	U	C2-O2	-5.05	1.17	1.22
1	A	2614	A	C5-C6	-5.05	1.36	1.41
1	A	186	C	N1-C6	-5.05	1.34	1.37
1	A	590	U	C4-C5	-5.05	1.39	1.43
1	A	894	A	N9-C4	-5.05	1.34	1.37
1	A	2536	G	C2-N3	-5.05	1.28	1.32
1	A	218	G	C5-C4	-5.05	1.34	1.38
1	A	563	G	N9-C4	5.05	1.42	1.38
1	A	638	U	N1-C6	-5.05	1.33	1.38
1	A	1835	U	C2-N3	-5.05	1.34	1.37
1	A	2300	A	C5-C6	-5.05	1.36	1.41
1	A	2471	G	O3'-P	-5.05	1.55	1.61
1	A	255	G	C2-N2	-5.05	1.29	1.34
1	A	1352	C	C2-O2	-5.05	1.20	1.24
1	A	2299	U	N1-C6	-5.05	1.33	1.38
1	A	2726	C	C2-N3	-5.05	1.31	1.35
1	A	53	A	C8-N7	-5.04	1.28	1.31
1	A	1291	A	O3'-P	-5.04	1.55	1.61
1	A	2039	G	C8-N7	-5.04	1.27	1.30
1	A	2285	C	C4-N4	-5.04	1.29	1.33
1	A	2511	G	N9-C4	-5.04	1.33	1.38
1	A	775	A	C8-N7	-5.04	1.28	1.31
1	A	1317	G	N7-C5	-5.04	1.36	1.39
1	A	2109	A	N3-C4	-5.04	1.31	1.34
1	A	2356	A	N9-C8	-5.04	1.33	1.37
2	B	96	A	N9-C4	-5.04	1.34	1.37
1	A	849	A	C5-C6	-5.04	1.36	1.41
1	A	1182	G	C8-N7	-5.04	1.27	1.30
1	A	1186	A	C6-N1	-5.04	1.32	1.35
1	A	2099	G	C5-C6	-5.04	1.37	1.42
1	A	2568	A	O3'-P	-5.04	1.55	1.61
1	A	574	A	C5-C6	-5.04	1.36	1.41
1	A	609	U	C5-C6	-5.04	1.29	1.34
1	A	1197	C	N3-C4	-5.04	1.30	1.33
1	A	1250	G	C8-N7	-5.04	1.27	1.30
1	A	1408	G	N9-C4	-5.04	1.33	1.38
1	A	1472	C	C2-N3	-5.04	1.31	1.35
1	A	1708	A	C8-N7	-5.04	1.28	1.31
1	A	2002	G	C6-N1	-5.04	1.36	1.39
1	A	2376	G	N9-C4	-5.04	1.33	1.38
1	A	2619	G	N7-C5	-5.04	1.36	1.39
1	A	2738	A	C8-N7	-5.04	1.28	1.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2896	A	N9-C4	-5.04	1.34	1.37
1	A	37	C	C4-C5	-5.04	1.39	1.43
1	A	200	A	C4'-C3'	-5.04	1.47	1.52
1	A	410	G	N7-C5	-5.04	1.36	1.39
1	A	517	A	C8-N7	-5.04	1.28	1.31
1	A	528	C	N1-C6	-5.04	1.34	1.37
1	A	850	G	C8-N7	-5.04	1.27	1.30
1	A	1670	A	C5-C4	-5.04	1.35	1.38
1	A	114	C	N3-C4	-5.04	1.30	1.33
1	A	220	A	N7-C5	-5.04	1.36	1.39
1	A	358	G	C6-N1	-5.04	1.36	1.39
1	A	664	G	N9-C8	-5.04	1.34	1.37
1	A	836	C	C4-C5	-5.04	1.39	1.43
1	A	1783	G	N9-C8	-5.04	1.34	1.37
1	A	2720	A	N9-C4	-5.04	1.34	1.37
1	A	362	C	C2-O2	-5.03	1.20	1.24
1	A	488	G	C4'-C3'	5.03	1.58	1.53
1	A	728	U	C4-C5	-5.03	1.39	1.43
1	A	1294	G	C6-O6	-5.03	1.19	1.24
1	A	1651	C	N3-C4	-5.03	1.30	1.33
1	A	2462	A	N7-C5	-5.03	1.36	1.39
2	B	97	G	N1-C2	-5.03	1.33	1.37
1	A	738	U	C4-O4	-5.03	1.19	1.23
1	A	1474	C	N3-C4	-5.03	1.30	1.33
1	A	1712	A	C8-N7	-5.03	1.28	1.31
1	A	2639	C	N1-C6	-5.03	1.34	1.37
1	A	1332	C	C2-N3	-5.03	1.31	1.35
1	A	1699	A	C2-N3	-5.03	1.29	1.33
1	A	2039	G	N9-C8	-5.03	1.34	1.37
1	A	746	G	C2-N3	-5.03	1.28	1.32
1	A	2020	U	C4-O4	-5.03	1.19	1.23
1	A	2257	G	N1-C2	-5.03	1.33	1.37
1	A	823	G	C2-N2	-5.03	1.29	1.34
1	A	949	C	N1-C6	-5.03	1.34	1.37
1	A	1257	G	N7-C5	-5.03	1.36	1.39
1	A	1296	C	C4-N4	-5.03	1.29	1.33
1	A	2276	U	C2-N3	-5.03	1.34	1.37
1	A	370	G	C6-O6	-5.03	1.19	1.24
1	A	559	A	N3-C4	-5.03	1.31	1.34
1	A	635	G	C8-N7	-5.03	1.27	1.30
1	A	1001	A	C6-N6	-5.03	1.29	1.33
1	A	2118	U	C2-N3	-5.03	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2649	U	C4-C5	-5.03	1.39	1.43
1	A	636	A	C8-N7	-5.02	1.28	1.31
1	A	734	A	N9-C8	-5.02	1.33	1.37
1	A	2044	C	C4-C5	-5.02	1.39	1.43
1	A	2456	G	N7-C5	-5.02	1.36	1.39
1	A	358	G	N9-C4	-5.02	1.33	1.38
1	A	2016	A	C8-N7	-5.02	1.28	1.31
1	A	2048	G	N9-C4	-5.02	1.33	1.38
1	A	2056	G	C3'-O3'	-5.02	1.35	1.42
1	A	2354	A	C6-N1	-5.02	1.32	1.35
1	A	2851	G	N3-C4	-5.02	1.31	1.35
1	A	199	A	C6-N1	-5.02	1.32	1.35
1	A	1188	A	O3'-P	5.02	1.67	1.61
14	N	74	ARG	CB-CG	-5.02	1.39	1.52
1	A	222	A	N3-C4	-5.02	1.31	1.34
1	A	640	G	C5-C4	-5.02	1.34	1.38
1	A	700	A	C5-C6	-5.02	1.36	1.41
1	A	807	U	C4-C5	-5.02	1.39	1.43
1	A	1474	C	N1-C6	-5.02	1.34	1.37
1	A	1663	G	C6-N1	-5.02	1.36	1.39
1	A	2266	G	C5-C6	-5.02	1.37	1.42
1	A	2536	G	C8-N7	-5.02	1.27	1.30
1	A	2713	G	C2-N2	-5.02	1.29	1.34
1	A	455	A	C5-C4	-5.02	1.35	1.38
1	A	823	G	N7-C5	-5.02	1.36	1.39
1	A	880	A	N9-C4	-5.02	1.34	1.37
1	A	1036	C	C4-N4	-5.02	1.29	1.33
1	A	1472	C	N1-C6	-5.02	1.34	1.37
1	A	1721	A	N9-C8	-5.02	1.33	1.37
1	A	2001	C	C4-C5	-5.02	1.39	1.43
1	A	2249	G	C8-N7	-5.02	1.27	1.30
1	A	2616	A	N1-C2	-5.02	1.29	1.34
1	A	2652	G	C2-N2	-5.02	1.29	1.34
1	A	38	A	N3-C4	-5.02	1.31	1.34
1	A	1229	G	N3-C4	-5.02	1.31	1.35
1	A	2572	G	C6-N1	-5.02	1.36	1.39
1	A	358	G	N9-C8	-5.01	1.34	1.37
1	A	558	A	N9-C8	-5.01	1.33	1.37
1	A	1243	G	N1-C2	-5.01	1.33	1.37
1	A	1648	C	C4-C5	-5.01	1.39	1.43
1	A	1688	U	C2-N3	-5.01	1.34	1.37
1	A	2650	G	N1-C2	-5.01	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2803	A	N7-C5	-5.01	1.36	1.39
1	A	2837	U	N3-C4	-5.01	1.33	1.38
1	A	2850	G	P-O5'	-5.01	1.54	1.59
1	A	53	A	C5-C4	-5.01	1.35	1.38
1	A	750	A	N9-C4	-5.01	1.34	1.37
1	A	373	A	P-O5'	5.01	1.64	1.59
1	A	1015	C	C2-O2	-5.01	1.20	1.24
1	A	1645	G	N7-C5	-5.01	1.36	1.39
1	A	1693	G	N3-C4	-5.01	1.31	1.35
1	A	2393	A	N7-C5	-5.01	1.36	1.39
1	A	2838	C	C2-N3	-5.01	1.31	1.35
1	A	242	U	N1-C6	5.01	1.42	1.38
1	A	271	C	C2-N3	-5.01	1.31	1.35
1	A	346	A	N7-C5	-5.01	1.36	1.39
1	A	833	A	C5-C4	-5.01	1.35	1.38
1	A	1073	A	C6-N1	-5.01	1.32	1.35
1	A	1851	G	C6-N1	-5.01	1.36	1.39
1	A	2082	C	N1-C2	-5.01	1.35	1.40
1	A	2104	A	C6-N1	-5.01	1.32	1.35
1	A	2658	G	C6-N1	-5.01	1.36	1.39
1	A	2647	C	C2-O2	-5.01	1.20	1.24
1	A	2652	G	C2-N3	-5.01	1.28	1.32
1	A	181	G	N1-C2	-5.01	1.33	1.37
1	A	344	U	N3-C4	-5.01	1.33	1.38
1	A	894	A	C4'-C3'	-5.01	1.47	1.52
1	A	1064	A	C6-N1	-5.01	1.32	1.35
1	A	1245	G	C6-N1	-5.01	1.36	1.39
1	A	1252	A	C5-C4	-5.01	1.35	1.38
1	A	1297	G	P-O5'	5.01	1.64	1.59
1	A	1406	G	C2-N3	-5.01	1.28	1.32
1	A	2488	C	N1-C6	-5.01	1.34	1.37
1	A	1732	U	N3-C4	-5.00	1.33	1.38
1	A	2388	A	N9-C4	-5.00	1.34	1.37
1	A	2430	C	N1-C6	-5.00	1.34	1.37
1	A	782	C	C5-C6	-5.00	1.30	1.34
1	A	1664	G	N3-C4	-5.00	1.31	1.35
1	A	1790	G	N1-C2	-5.00	1.33	1.37
1	A	2463	G	N9-C8	-5.00	1.34	1.37
1	A	2670	G	C2-N3	-5.00	1.28	1.32
1	A	16	G	N7-C5	-5.00	1.36	1.39
1	A	496	G	C2-N2	-5.00	1.29	1.34
1	A	990	G	N1-C2	-5.00	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2271	U	N1-C6	-5.00	1.33	1.38
1	A	2621	C	C2-N3	-5.00	1.31	1.35

All (9883) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	393	G	C8-N9-C4	-165.41	40.24	106.40
1	A	393	G	C5-N7-C8	-101.22	53.69	104.30
1	A	650	U	N3-C2-O2	-47.45	88.98	122.20
1	A	1016	G	C8-N9-C4	-47.36	87.45	106.40
1	A	393	G	N7-C8-N9	46.20	136.20	113.10
1	A	2653	C	C6-N1-C2	-39.97	104.31	120.30
1	A	607	C	N1-C2-O2	39.25	142.45	118.90
1	A	2031	G	N1-C6-O6	-38.90	96.56	119.90
1	A	1016	G	N7-C8-N9	38.78	132.49	113.10
1	A	607	C	N3-C4-N4	-38.77	90.86	118.00
1	A	520	G	C8-N9-C4	-38.10	91.16	106.40
1	A	607	C	N3-C2-O2	-36.69	96.22	121.90
1	A	1308	C	N3-C4-C5	36.27	136.41	121.90
1	A	1227	U	N3-C4-O4	-35.83	94.32	119.40
1	A	907	G	C6-C5-N7	-34.75	109.55	130.40
1	A	2457	A	C8-N9-C4	-34.40	92.04	105.80
1	A	2454	C	C6-N1-C2	-34.29	106.58	120.30
1	A	544	U	C6-N1-C2	-34.08	100.55	121.00
1	A	1054	A	C8-N9-C4	-33.84	92.27	105.80
1	A	561	C	C6-N1-C2	-33.57	106.87	120.30
1	A	864	A	N1-C6-N6	-33.49	98.50	118.60
1	A	2542	C	N3-C4-C5	-33.19	108.62	121.90
1	A	1049	C	N1-C2-O2	33.09	138.76	118.90
1	A	1187	A	C8-N9-C4	-32.67	92.73	105.80
1	A	2285	C	N1-C2-O2	32.55	138.43	118.90
1	A	1016	G	N3-C4-C5	-32.47	112.36	128.60
1	A	2063	C	C6-N1-C2	-32.42	107.33	120.30
1	A	1017	A	C5-N7-C8	-32.31	87.75	103.90
1	A	2473	G	C8-N9-C4	-32.02	93.59	106.40
1	A	520	G	N7-C8-N9	31.58	128.89	113.10
1	A	2542	C	C4-C5-C6	31.57	133.19	117.40
1	A	198	A	N1-C6-N6	-31.55	99.67	118.60
1	A	1049	C	C6-N1-C2	-31.54	107.69	120.30
1	A	1044	A	C8-N9-C4	-31.46	93.22	105.80
1	A	1017	A	N7-C8-N9	31.31	129.45	113.80
1	A	2457	A	N7-C8-N9	31.30	129.45	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1049	C	C2-N1-C1'	31.13	153.05	118.80
1	A	1199	A	C8-N9-C4	-31.09	93.36	105.80
1	A	548	A	N7-C8-N9	30.97	129.28	113.80
1	A	561	C	C5-C6-N1	30.94	136.47	121.00
1	A	2285	C	N3-C2-O2	-30.82	100.33	121.90
1	A	548	A	C8-N9-C4	-30.68	93.53	105.80
1	A	1020	G	C6-C5-N7	-30.42	112.15	130.40
1	A	1050	C	C6-N1-C2	-30.32	108.17	120.30
1	A	2483	C	C6-N1-C2	-30.22	108.21	120.30
1	A	2065	G	C4-C5-N7	30.18	122.87	110.80
1	A	1014	U	C5-C6-N1	29.93	137.66	122.70
1	A	1046	G	C6-C5-N7	-29.91	112.45	130.40
1	A	907	G	N7-C8-N9	29.88	128.04	113.10
1	A	954	A	N9-C4-C5	-29.88	93.85	105.80
1	A	2471	G	N9-C4-C5	-29.60	93.56	105.40
1	A	864	A	C8-N9-C4	-29.54	93.99	105.80
1	A	707	G	N1-C6-O6	-29.38	102.27	119.90
1	A	1054	A	N7-C8-N9	29.36	128.48	113.80
1	A	2094	G	N3-C4-C5	-28.53	114.34	128.60
1	A	626	G	N1-C2-N2	-28.50	90.55	116.20
1	A	2486	A	N7-C8-N9	28.46	128.03	113.80
1	A	1288	G	N3-C4-C5	-28.30	114.45	128.60
1	A	2471	G	C4-C5-N7	28.02	122.01	110.80
1	A	561	C	N3-C4-C5	-27.99	110.70	121.90
1	A	2673	C	N3-C4-C5	27.91	133.06	121.90
1	A	650	U	N1-C2-O2	27.89	142.32	122.80
1	A	1308	C	C2-N3-C4	-27.89	105.96	119.90
1	A	595	G	N9-C4-C5	27.59	116.44	105.40
1	A	27	G	C8-N9-C4	-27.50	95.40	106.40
1	A	903	G	N1-C6-O6	-27.25	103.55	119.90
1	A	607	C	C5-C4-N4	27.24	139.26	120.20
1	A	1027	A	N1-C6-N6	-27.19	102.28	118.60
1	A	620	G	N1-C6-O6	-27.14	103.61	119.90
1	A	2044	C	C6-N1-C2	-27.06	109.48	120.30
1	A	907	G	N3-C4-N9	27.01	142.21	126.00
1	A	1286	G	C5-C6-O6	-26.99	112.41	128.60
1	A	626	G	N3-C2-N2	26.98	138.79	119.90
1	A	393	G	N9-C4-C5	26.86	116.14	105.40
1	A	2643	C	N1-C2-O2	26.81	134.99	118.90
1	A	1049	C	C5-C6-N1	26.79	134.40	121.00
1	A	1705	G	C5-C6-N1	26.73	124.86	111.50
1	A	2525	C	N3-C2-O2	-26.61	103.27	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	907	G	C4-C5-N7	26.59	121.44	110.80
1	A	864	A	N9-C4-C5	26.42	116.37	105.80
1	A	2486	A	C8-N9-C4	-26.28	95.29	105.80
1	A	2481	G	N1-C2-N2	-26.20	92.62	116.20
1	A	2079	G	O5'-P-OP2	-26.16	79.31	110.70
1	A	648	G	N3-C4-C5	-26.02	115.59	128.60
1	A	2031	G	N9-C4-C5	26.00	115.80	105.40
1	A	954	A	C8-N9-C4	26.00	116.20	105.80
1	A	561	C	N1-C2-O2	25.98	134.49	118.90
1	A	544	U	N1-C2-N3	25.90	130.44	114.90
1	A	393	G	C8-N9-C1'	25.82	160.56	127.00
1	A	595	G	C8-N9-C4	-25.68	96.13	106.40
1	A	606	G	C2-N3-C4	-25.64	99.08	111.90
1	A	1014	U	N3-C4-O4	25.63	137.34	119.40
1	A	999	U	N3-C2-O2	-25.54	104.32	122.20
1	A	2546	U	C6-N1-C2	-25.53	105.68	121.00
1	A	2542	C	N1-C2-O2	25.52	134.21	118.90
1	A	2542	C	N3-C2-O2	-25.52	104.04	121.90
1	A	1027	A	N9-C4-C5	25.45	115.98	105.80
1	A	2520	U	N3-C2-O2	-25.41	104.41	122.20
1	A	1019	A	C8-N9-C4	-25.40	95.64	105.80
1	A	2542	C	C6-N1-C2	-25.24	110.20	120.30
1	A	1197	C	C6-N1-C2	-25.21	110.22	120.30
1	A	1020	G	N3-C4-N9	25.16	141.10	126.00
1	A	393	G	C4-N9-C1'	25.15	159.20	126.50
1	A	2642	U	N3-C2-O2	-25.11	104.62	122.20
1	A	1207	G	N1-C6-O6	25.10	134.96	119.90
1	A	1227	U	N3-C4-C5	25.04	129.62	114.60
1	A	707	G	C2-N3-C4	25.02	124.41	111.90
1	A	2527	U	C5-C6-N1	25.01	135.21	122.70
1	A	2482	G	O5'-P-OP1	-25.00	80.70	110.70
1	A	2664	U	N3-C2-O2	-24.97	104.72	122.20
1	A	1199	A	N7-C8-N9	24.95	126.28	113.80
1	A	1046	G	N3-C4-N9	24.90	140.94	126.00
1	A	1066	G	N3-C4-C5	-24.90	116.15	128.60
1	A	1049	C	N3-C4-N4	24.90	135.43	118.00
1	A	1299	U	N3-C2-O2	-24.85	104.81	122.20
1	A	1197	C	C5-C6-N1	24.81	133.41	121.00
1	A	2080	G	C2-N3-C4	24.79	124.30	111.90
1	A	1288	G	N3-C4-N9	24.72	140.83	126.00
1	A	561	C	C2-N1-C1'	24.71	145.98	118.80
1	A	2056	G	N1-C2-N2	-24.69	93.98	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1274	G	N3-C4-C5	-24.68	116.26	128.60
1	A	644	C	O4'-C1'-N1	24.63	127.91	108.20
1	A	2047	A	N7-C8-N9	24.41	126.00	113.80
1	A	1049	C	N3-C2-O2	-24.37	104.84	121.90
1	A	27	G	N9-C4-C5	24.32	115.13	105.40
1	A	1036	C	C5-C6-N1	24.30	133.15	121.00
1	A	606	G	N1-C2-N3	24.25	138.45	123.90
1	A	1369	G	N3-C4-C5	-24.25	116.48	128.60
1	A	2471	G	C8-N9-C4	24.23	116.09	106.40
1	A	531	C	C6-N1-C2	-24.22	110.61	120.30
1	A	1197	C	O5'-P-OP2	24.21	139.75	110.70
1	A	2094	G	C5-N7-C8	24.18	116.39	104.30
1	A	1368	C	C6-N1-C2	-24.17	110.63	120.30
1	A	606	G	C5-C6-O6	24.12	143.07	128.60
1	A	561	C	N3-C4-N4	24.11	134.88	118.00
1	A	1295	C	N3-C2-O2	-24.10	105.03	121.90
1	A	957	C	C6-N1-C2	-24.05	110.68	120.30
1	A	1024	A	C8-N9-C4	-24.03	96.19	105.80
1	A	1017	A	C4-C5-N7	23.95	122.68	110.70
1	A	861	C	C6-N1-C2	-23.95	110.72	120.30
1	A	2031	G	C5-C6-O6	23.92	142.95	128.60
1	A	1034	A	C8-N9-C4	23.83	115.33	105.80
1	A	626	G	N3-C4-N9	23.82	140.29	126.00
1	A	1239	C	C6-N1-C2	-23.72	110.81	120.30
1	A	27	G	N3-C4-C5	-23.69	116.75	128.60
1	A	2863	G	N3-C4-C5	-23.69	116.76	128.60
1	A	332	A	N1-C2-N3	23.58	141.09	129.30
1	A	1015	C	N3-C2-O2	-23.53	105.43	121.90
1	A	2668	A	C4-C5-C6	23.52	128.76	117.00
1	A	595	G	N1-C6-O6	-23.43	105.84	119.90
1	A	1234	G	N3-C4-C5	-23.42	116.89	128.60
1	A	1020	G	C4-C5-N7	23.42	120.17	110.80
1	A	2863	G	N3-C4-N9	23.39	140.03	126.00
1	A	668	C	N3-C2-O2	-23.35	105.56	121.90
1	A	620	G	C5-C6-N1	23.33	123.17	111.50
1	A	2653	C	C5-C6-N1	23.24	132.62	121.00
1	A	1036	C	C6-N1-C2	-23.24	111.00	120.30
1	A	2482	G	O5'-P-OP2	-23.20	82.86	110.70
1	A	912	C	C5-C6-N1	23.17	132.58	121.00
1	A	2080	G	N1-C6-O6	-23.13	106.02	119.90
1	A	1700	C	C6-N1-C2	-23.06	111.08	120.30
1	A	990	G	C6-C5-N7	-23.00	116.60	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1049	C	C5-C4-N4	-22.99	104.11	120.20
1	A	1000	G	C6-C5-N7	-22.94	116.64	130.40
1	A	496	G	N7-C8-N9	22.90	124.55	113.10
1	A	1073	A	C8-N9-C4	-22.89	96.64	105.80
1	A	332	A	N7-C8-N9	-22.84	102.38	113.80
1	A	1187	A	N7-C8-N9	22.80	125.20	113.80
1	A	1289	A	N9-C4-C5	-22.64	96.74	105.80
1	A	626	G	N3-C4-C5	-22.61	117.30	128.60
1	A	1034	A	N1-C6-N6	-22.57	105.06	118.60
1	A	626	G	C4-N9-C1'	22.55	155.81	126.50
1	A	2655	U	C5-C6-N1	22.53	133.97	122.70
1	A	1047	G	N9-C4-C5	-22.53	96.39	105.40
1	A	2031	G	C6-C5-N7	22.52	143.91	130.40
1	A	548	A	C5-N7-C8	-22.50	92.65	103.90
1	A	1036	C	O5'-P-OP1	-22.42	83.80	110.70
1	A	1014	U	C5-C4-O4	-22.41	112.46	125.90
1	A	2473	G	N7-C8-N9	22.39	124.29	113.10
1	A	52	A	C8-N9-C4	-22.38	96.85	105.80
1	A	2460	A	N1-C6-N6	22.38	132.03	118.60
1	A	990	G	N3-C2-N2	22.36	135.55	119.90
1	A	2516	G	N9-C4-C5	-22.34	96.47	105.40
1	A	548	A	N1-C2-N3	22.33	140.47	129.30
1	A	707	G	N3-C4-C5	-22.31	117.45	128.60
1	A	1295	C	N3-C4-N4	-22.28	102.40	118.00
1	A	1019	A	O5'-P-OP1	-22.25	84.00	110.70
1	A	1700	C	N3-C2-O2	-22.22	106.35	121.90
1	A	892	U	C5-C4-O4	22.21	139.23	125.90
1	A	1207	G	C6-C5-N7	-22.19	117.09	130.40
1	A	1014	U	C2-N1-C1'	22.17	144.30	117.70
1	A	1004	A	N1-C6-N6	-22.10	105.34	118.60
1	A	496	G	C8-N9-C4	-22.06	97.58	106.40
1	A	2568	A	C5-C6-N6	-22.03	106.08	123.70
1	A	582	G	N3-C4-C5	-22.02	117.59	128.60
1	A	2019	G	N1-C6-O6	-21.94	106.74	119.90
1	A	666	A	C6-N1-C2	-21.92	105.45	118.60
1	A	1197	C	OP1-P-OP2	-21.91	86.73	119.60
1	A	650	U	N1-C2-N3	21.91	128.04	114.90
1	A	1048	U	C6-N1-C2	-21.90	107.86	121.00
1	A	2044	C	C2-N1-C1'	21.89	142.87	118.80
1	A	2800	U	N3-C4-C5	21.88	127.73	114.60
1	A	1014	U	C6-N1-C2	-21.88	107.88	121.00
1	A	642	U	N3-C2-O2	-21.85	106.90	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2542	C	C2-N1-C1'	21.84	142.82	118.80
1	A	907	G	C5-N7-C8	-21.84	93.38	104.30
1	A	1034	A	C5-N7-C8	21.83	114.81	103.90
1	A	2478	A	N1-C6-N6	-21.82	105.50	118.60
1	A	480	U	C5-C4-O4	21.82	138.99	125.90
1	A	957	C	N3-C2-O2	-21.81	106.63	121.90
1	A	1020	G	N9-C4-C5	-21.80	96.68	105.40
1	A	1010	G	C5-N7-C8	-21.78	93.41	104.30
1	A	532	C	C6-N1-C2	-21.75	111.60	120.30
1	A	2525	C	N1-C2-O2	21.75	131.95	118.90
1	A	1197	C	C2-N1-C1'	21.70	142.67	118.80
1	A	2704	A	C4-C5-C6	21.68	127.84	117.00
1	A	990	G	N9-C4-C5	-21.67	96.73	105.40
1	A	2460	A	C5-C6-N6	-21.63	106.39	123.70
1	A	648	G	N3-C4-N9	21.60	138.96	126.00
1	A	995	U	C5-C6-N1	21.55	133.47	122.70
1	A	2093	C	N3-C4-N4	-21.53	102.93	118.00
1	A	668	C	N1-C2-O2	21.49	131.79	118.90
1	A	627	C	O4'-C1'-N1	21.45	125.36	108.20
1	A	520	G	N9-C4-C5	21.42	113.97	105.40
1	A	2275	C	C5-C6-N1	-21.37	110.31	121.00
1	A	629	A	C8-N9-C4	-21.34	97.26	105.80
1	A	1015	C	N1-C2-O2	21.29	131.68	118.90
1	A	503	A	C5-N7-C8	-21.21	93.29	103.90
1	A	2065	G	C5-N7-C8	-21.20	93.70	104.30
1	A	2045	A	C8-N9-C4	-21.18	97.33	105.80
1	A	544	U	N3-C2-O2	-21.17	107.38	122.20
1	A	1241	A	C5-N7-C8	21.10	114.45	103.90
1	A	1369	G	C4-N9-C1'	21.10	153.93	126.50
1	A	1286	G	N9-C4-C5	-21.08	96.97	105.40
1	A	906	A	N1-C6-N6	-21.08	105.95	118.60
1	A	1047	G	C8-N9-C4	21.06	114.82	106.40
1	A	2056	G	C2-N3-C4	-21.05	101.37	111.90
1	A	561	C	C2-N3-C4	21.02	130.41	119.90
1	A	2887	G	N3-C4-C5	-20.98	118.11	128.60
1	A	1228	A	N1-C6-N6	20.92	131.15	118.60
1	A	892	U	N3-C4-O4	-20.89	104.78	119.40
1	A	53	A	N7-C8-N9	20.84	124.22	113.80
1	A	907	G	C5-C6-O6	-20.84	116.10	128.60
1	A	1027	A	C6-N1-C2	-20.78	106.13	118.60
1	A	634	C	O4'-C1'-N1	20.78	124.82	108.20
1	A	27	G	N1-C6-O6	-20.72	107.47	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2593	A	C8-N9-C4	-20.69	97.52	105.80
1	A	2481	G	N3-C4-C5	-20.66	118.27	128.60
1	A	2568	A	N1-C6-N6	20.66	131.00	118.60
1	A	2284	U	N3-C2-O2	-20.66	107.74	122.20
1	A	1374	G	C8-N9-C4	-20.64	98.14	106.40
1	A	1034	A	N7-C8-N9	-20.62	103.49	113.80
1	A	1286	G	C4-C5-N7	20.62	119.05	110.80
1	A	2482	G	N1-C2-N3	20.62	136.27	123.90
1	A	2516	G	C8-N9-C4	20.60	114.64	106.40
1	A	2488	C	C5-C6-N1	20.59	131.29	121.00
1	A	650	U	C6-N1-C2	-20.57	108.66	121.00
1	A	907	G	N1-C6-O6	20.55	132.23	119.90
1	A	2525	C	C2-N3-C4	-20.53	109.63	119.90
1	A	1234	G	C2-N3-C4	20.51	122.16	111.90
1	A	241	C	C6-N1-C2	-20.50	112.10	120.30
1	A	332	A	C6-N1-C2	20.49	130.89	118.60
1	A	2667	G	N3-C2-N2	-20.47	105.57	119.90
1	A	2757	U	N3-C2-O2	-20.45	107.89	122.20
1	A	606	G	N3-C4-N9	-20.44	113.74	126.00
1	A	1260	C	N3-C4-C5	20.44	130.07	121.90
1	A	1369	G	C8-N9-C4	-20.43	98.23	106.40
1	A	721	A	C8-N9-C4	-20.42	97.63	105.80
1	A	1031	C	C2-N3-C4	-20.38	109.71	119.90
1	A	557	G	O4'-C1'-N9	20.35	124.48	108.20
1	A	22	C	N1-C2-O2	20.34	131.10	118.90
1	A	1235	C	N1-C2-O2	20.23	131.04	118.90
1	A	721	A	N7-C8-N9	20.21	123.91	113.80
1	A	28	A	N1-C6-N6	-20.18	106.49	118.60
1	A	2597	G	N7-C8-N9	20.18	123.19	113.10
1	A	1185	U	C6-N1-C2	-20.17	108.90	121.00
1	A	990	G	C4-C5-N7	20.16	118.87	110.80
1	A	626	G	C8-N9-C1'	-20.16	100.80	127.00
1	A	503	A	N7-C8-N9	20.14	123.87	113.80
1	A	53	A	C5-N7-C8	-20.10	93.85	103.90
1	A	572	C	C6-N1-C2	-20.09	112.26	120.30
1	A	1288	G	O4'-C1'-N9	20.06	124.25	108.20
1	A	1046	G	N7-C8-N9	20.05	123.13	113.10
1	A	2856	U	O4'-C1'-N1	20.04	124.23	108.20
1	A	2456	G	C8-N9-C4	-20.02	98.39	106.40
1	A	2094	G	C4-C5-N7	-19.97	102.81	110.80
1	A	2543	G	C8-N9-C4	-19.92	98.43	106.40
1	A	490	C	N3-C4-C5	19.90	129.86	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1299	U	N1-C2-O2	19.90	136.73	122.80
1	A	2664	U	C6-N1-C2	-19.89	109.06	121.00
1	A	1175	G	N9-C4-C5	-19.82	97.47	105.40
1	A	990	G	C5'-C4'-O4'	19.80	132.85	109.10
1	A	1017	A	N1-C6-N6	19.78	130.47	118.60
1	A	897	A	O5'-P-OP1	-19.73	87.03	110.70
1	A	1286	G	C8-N9-C4	19.72	114.29	106.40
1	A	1000	G	C4-C5-N7	19.70	118.68	110.80
1	A	1225	G	O5'-P-OP1	-19.68	87.09	110.70
1	A	2080	G	C6-C5-N7	19.67	142.20	130.40
1	A	1274	G	C8-N9-C4	-19.67	98.53	106.40
1	A	900	G	N1-C6-O6	-19.66	108.10	119.90
1	A	1046	G	C4-C5-N7	19.66	118.66	110.80
1	A	561	C	N3-C2-O2	-19.65	108.14	121.90
1	A	198	A	C5-C6-N1	19.59	127.49	117.70
1	A	1289	A	C4-C5-N7	19.54	120.47	110.70
1	A	1016	G	C4-N9-C1'	19.54	151.90	126.50
1	A	707	G	C5-C6-N1	19.53	121.26	111.50
1	A	368	A	C6-C5-N7	-19.50	118.65	132.30
1	A	2019	G	N9-C4-C5	19.50	113.20	105.40
1	A	615	A	N1-C6-N6	-19.48	106.91	118.60
1	A	1019	A	N7-C8-N9	19.47	123.53	113.80
1	A	1016	G	C4-C5-C6	19.45	130.47	118.80
1	A	1275	A	C8-N9-C4	-19.44	98.02	105.80
1	A	648	G	O4'-C1'-N9	19.44	123.75	108.20
1	A	2472	G	N9-C4-C5	19.43	113.17	105.40
1	A	2093	C	N3-C4-C5	19.43	129.67	121.90
1	A	1308	C	C6-N1-C2	19.41	128.07	120.30
1	A	1283	G	N1-C6-O6	-19.39	108.26	119.90
1	A	1291	A	O5'-P-OP2	-19.37	87.46	110.70
1	A	1175	G	C8-N9-C4	19.35	114.14	106.40
1	A	27	G	C4-C5-N7	-19.34	103.06	110.80
1	A	1027	A	C8-N9-C4	-19.33	98.07	105.80
1	A	632	U	C5-C4-O4	19.32	137.49	125.90
1	A	547	A	C8-N9-C4	-19.30	98.08	105.80
1	A	650	U	C2-N1-C1'	19.30	140.85	117.70
1	A	2856	U	C5-C4-O4	19.28	137.47	125.90
1	A	861	C	C5-C6-N1	19.27	130.64	121.00
1	A	28	A	O5'-P-OP2	-19.26	87.59	110.70
1	A	495	A	O5'-P-OP2	-19.23	87.62	110.70
1	A	383	A	N1-C6-N6	-19.23	107.06	118.60
1	A	2857	A	C5-N7-C8	-19.23	94.29	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	566	U	N3-C2-O2	-19.22	108.74	122.20
1	A	22	C	C5-C4-N4	-19.21	106.75	120.20
1	A	1016	G	C6-C5-N7	-19.21	118.87	130.40
1	A	2046	U	C6-N1-C2	-19.18	109.49	121.00
1	A	1236	G	C6-C5-N7	-19.14	118.91	130.40
1	A	428	G	N3-C2-N2	-19.13	106.51	119.90
1	A	1228	A	C6-C5-N7	-19.13	118.91	132.30
1	A	996	G	N7-C8-N9	19.10	122.65	113.10
1	A	1274	G	N3-C4-N9	19.04	137.43	126.00
1	A	554	C	C6-N1-C2	-19.03	112.69	120.30
1	A	712	U	N3-C2-O2	-19.02	108.89	122.20
1	A	1010	G	N7-C8-N9	19.00	122.60	113.10
1	A	544	U	C5-C6-N1	18.99	132.20	122.70
1	A	2668	A	N3-C4-C5	-18.99	113.51	126.80
1	A	2049	U	C6-N1-C2	-18.99	109.61	121.00
1	A	2472	G	C5-C6-O6	18.98	139.99	128.60
1	A	2060	A	C8-N9-C4	-18.98	98.21	105.80
1	A	907	G	C8-N9-C4	-18.96	98.81	106.40
1	A	1228	A	C4-C5-N7	18.96	120.18	110.70
1	A	863	G	C4-C5-N7	18.95	118.38	110.80
1	A	907	G	C4-N9-C1'	18.95	151.13	126.50
1	A	1066	G	C8-N9-C4	-18.93	98.83	106.40
1	A	2542	C	OP1-P-OP2	-18.92	91.22	119.60
1	A	965	G	N3-C2-N2	-18.91	106.66	119.90
1	A	474	A	C8-N9-C4	-18.90	98.24	105.80
1	A	2800	U	C2-N3-C4	-18.90	115.66	127.00
1	A	29	U	N3-C2-O2	-18.88	108.98	122.20
1	A	995	U	C4-C5-C6	-18.88	108.37	119.70
1	A	1028	G	N7-C8-N9	18.88	122.54	113.10
1	A	2455	G	O5'-P-OP1	-18.87	88.06	110.70
1	A	1241	A	O4'-C1'-N9	18.86	123.29	108.20
1	A	2894	C	N3-C2-O2	-18.83	108.72	121.90
1	A	2094	G	N3-C4-N9	18.82	137.29	126.00
1	A	2481	G	C4-N9-C1'	18.81	150.95	126.50
1	A	990	G	N1-C6-O6	18.79	131.17	119.90
1	A	554	C	C5-C6-N1	18.77	130.39	121.00
1	A	2704	A	C6-C5-N7	-18.77	119.16	132.30
1	A	547	A	N7-C8-N9	18.76	123.18	113.80
1	A	1044	A	N7-C8-N9	18.75	123.17	113.80
1	A	2597	G	N3-C2-N2	-18.75	106.78	119.90
1	A	1286	G	N1-C6-O6	18.73	131.14	119.90
1	A	1010	G	C4-C5-N7	18.73	118.29	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1016	G	N3-C4-N9	18.72	137.23	126.00
1	A	1032	A	C5-C6-N1	18.72	127.06	117.70
1	A	1205	U	N3-C2-O2	-18.68	109.12	122.20
1	A	1018	A	C2-N3-C4	-18.62	101.29	110.60
1	A	583	A	N1-C6-N6	-18.62	107.43	118.60
1	A	666	A	C5-C6-N1	18.62	127.01	117.70
1	A	425	G	N1-C6-O6	-18.61	108.73	119.90
1	A	1261	G	O5'-P-OP2	-18.61	88.37	110.70
1	A	2047	A	C5-N7-C8	-18.60	94.60	103.90
1	A	1001	A	C8-N9-C4	-18.60	98.36	105.80
1	A	907	G	N9-C4-C5	-18.60	97.96	105.40
1	A	13	A	C8-N9-C4	-18.55	98.38	105.80
1	A	1227	U	N3-C2-O2	-18.54	109.22	122.20
1	A	2542	C	N3-C4-N4	18.54	130.98	118.00
1	A	1050	C	N3-C2-O2	-18.52	108.94	121.90
1	A	2054	G	N3-C4-N9	-18.47	114.92	126.00
1	A	393	G	N3-C4-C5	-18.45	119.38	128.60
1	A	1044	A	N3-C4-C5	-18.44	113.89	126.80
1	A	2868	G	N7-C8-N9	18.43	122.32	113.10
1	A	533	C	C6-N1-C2	-18.43	112.93	120.30
1	A	1049	C	C6-N1-C1'	-18.43	98.68	120.80
1	A	544	U	C5-C4-O4	18.40	136.94	125.90
1	A	1017	A	C8-N9-C4	-18.39	98.44	105.80
1	A	2081	A	N1-C6-N6	-18.39	107.56	118.60
1	A	2481	G	N1-C2-N3	18.39	134.94	123.90
1	A	1185	U	O5'-P-OP1	-18.37	88.66	110.70
1	A	1048	U	C5-C6-N1	18.34	131.87	122.70
1	A	607	C	N3-C4-C5	18.33	129.23	121.90
1	A	2856	U	N3-C2-O2	-18.33	109.37	122.20
1	A	354	A	N7-C8-N9	18.33	122.96	113.80
1	A	519	G	C8-N9-C4	-18.30	99.08	106.40
1	A	428	G	N9-C4-C5	18.30	112.72	105.40
1	A	1046	G	N9-C4-C5	-18.30	98.08	105.40
1	A	70	G	C5-N7-C8	18.29	113.45	104.30
1	A	2457	A	C2-N3-C4	18.28	119.74	110.60
1	A	2488	C	N1-C2-O2	18.27	129.86	118.90
1	A	846	G	C4-C5-N7	-18.24	103.50	110.80
1	A	125	A	C5-N7-C8	-18.23	94.78	103.90
1	A	607	C	C4-C5-C6	-18.20	108.30	117.40
1	A	380	U	N3-C2-O2	-18.20	109.46	122.20
1	A	2486	A	O5'-P-OP2	-18.20	88.86	110.70
1	A	2094	G	O5'-P-OP2	-18.14	88.93	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	595	G	C4-C5-N7	-18.13	103.55	110.80
1	A	1050	C	C5-C6-N1	18.07	130.03	121.00
1	A	990	G	N3-C4-N9	18.05	136.83	126.00
1	A	1816	A	C5-N7-C8	-18.05	94.88	103.90
1	A	1015	C	O4'-C1'-N1	18.04	122.63	108.20
1	A	903	G	C5-C6-N1	18.02	120.51	111.50
1	A	2662	U	N3-C2-O2	-18.02	109.59	122.20
1	A	990	G	C5-C6-O6	-18.00	117.80	128.60
1	A	2065	G	C6-C5-N7	-17.99	119.61	130.40
1	A	241	C	N3-C2-O2	-17.98	109.31	121.90
1	A	2481	G	N3-C4-N9	17.97	136.78	126.00
1	A	2397	G	O4'-C1'-N9	17.95	122.56	108.20
1	A	1699	A	N1-C6-N6	-17.95	107.83	118.60
1	A	571	A	N1-C6-N6	-17.94	107.84	118.60
1	A	1230	G	C6-C5-N7	-17.88	119.67	130.40
1	A	2643	C	N3-C2-O2	-17.86	109.40	121.90
1	A	1289	A	O4'-C1'-N9	17.83	122.46	108.20
1	A	194	A	N1-C6-N6	-17.81	107.91	118.60
1	A	354	A	C8-N9-C4	-17.80	98.68	105.80
1	A	2080	G	C5-C6-N1	17.80	120.40	111.50
1	A	2472	G	N1-C6-O6	-17.78	109.23	119.90
1	A	1024	A	C5-C6-N1	17.77	126.59	117.70
1	A	2379	A	OP1-P-OP2	-17.76	92.95	119.60
1	A	606	G	N9-C4-C5	17.73	112.49	105.40
1	A	1705	G	N1-C6-O6	-17.73	109.26	119.90
1	A	2044	C	C5-C6-N1	17.73	129.86	121.00
1	A	1804	U	N3-C2-O2	-17.71	109.80	122.20
1	A	2056	G	N3-C2-N2	17.69	132.29	119.90
1	A	520	G	C5-N7-C8	-17.68	95.46	104.30
1	A	445	G	N9-C4-C5	17.66	112.46	105.40
1	A	1016	G	O5'-P-OP1	-17.64	89.53	110.70
1	A	2052	C	N1-C2-O2	17.63	129.48	118.90
1	A	1251	A	C8-N9-C4	-17.61	98.76	105.80
1	A	360	A	N9-C4-C5	17.59	112.83	105.80
1	A	907	G	N3-C4-C5	-17.58	119.81	128.60
1	A	1696	C	N3-C2-O2	-17.56	109.61	121.90
1	A	906	A	C2-N3-C4	17.55	119.38	110.60
1	A	2543	G	N7-C8-N9	17.55	121.88	113.10
1	A	1000	G	N7-C8-N9	17.54	121.87	113.10
1	A	1050	C	N1-C2-O2	17.54	129.42	118.90
1	A	2672	G	O4'-C1'-N9	17.53	122.23	108.20
1	A	300	G	O5'-P-OP1	-17.53	89.67	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1027	A	C2-N3-C4	17.52	119.36	110.60
1	A	2668	A	N3-C4-N9	17.52	141.41	127.40
1	A	863	G	C2-N3-C4	-17.51	103.14	111.90
1	A	576	U	C6-N1-C2	-17.50	110.50	121.00
1	A	332	A	C4-C5-C6	-17.47	108.26	117.00
1	A	629	A	N7-C8-N9	17.44	122.52	113.80
1	A	2309	G	N1-C6-O6	-17.41	109.45	119.90
1	A	1034	A	C4-C5-N7	-17.41	102.00	110.70
1	A	2481	G	C8-N9-C4	-17.40	99.44	106.40
1	A	2528	C	N3-C2-O2	-17.39	109.73	121.90
1	A	707	G	C6-C5-N7	17.35	140.81	130.40
1	A	332	A	C6-C5-N7	17.34	144.44	132.30
1	A	1264	A	O5'-P-OP2	-17.32	89.92	110.70
1	A	1295	C	N3-C4-C5	17.30	128.82	121.90
1	A	242	U	C6-N1-C2	-17.29	110.63	121.00
1	A	373	A	N3-C4-C5	-17.25	114.72	126.80
1	A	2471	G	C5-C6-N1	17.25	120.13	111.50
1	A	2488	C	C6-N1-C2	-17.25	113.40	120.30
1	A	632	U	N3-C4-C5	-17.24	104.25	114.60
1	A	2019	G	N3-C4-C5	-17.24	119.98	128.60
1	A	1235	C	C2-N1-C1'	17.23	137.76	118.80
1	A	242	U	O5'-P-OP2	-17.23	90.03	110.70
1	A	620	G	C6-C5-N7	17.20	140.72	130.40
1	A	2667	G	N9-C4-C5	17.20	112.28	105.40
1	A	643	G	N1-C2-N3	17.20	134.22	123.90
1	A	1275	A	N7-C8-N9	17.18	122.39	113.80
1	A	1236	G	C5-N7-C8	-17.18	95.71	104.30
1	A	999	U	N1-C2-O2	17.16	134.81	122.80
1	A	2095	U	N3-C2-O2	-17.16	110.19	122.20
1	A	1043	U	O5'-P-OP2	-17.14	90.14	110.70
1	A	626	G	C6-C5-N7	-17.13	120.12	130.40
1	A	863	G	N9-C4-C5	-17.13	98.55	105.40
1	A	1241	A	C4-C5-N7	-17.13	102.14	110.70
1	A	2037	G	N1-C6-O6	-17.10	109.64	119.90
1	A	2520	U	N1-C2-N3	17.10	125.16	114.90
1	A	642	U	C2-N3-C4	-17.09	116.74	127.00
1	A	2456	G	N1-C6-O6	-17.08	109.65	119.90
1	A	874	A	C8-N9-C4	-17.07	98.97	105.80
1	A	859	C	N1-C2-O2	17.07	129.14	118.90
1	A	1374	G	N7-C8-N9	17.07	121.63	113.10
1	A	2481	G	N3-C2-N2	17.06	131.84	119.90
1	A	2093	C	N1-C2-O2	17.05	129.13	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2487	U	N3-C2-O2	-17.05	110.26	122.20
1	A	2047	A	C8-N9-C4	-17.04	98.98	105.80
1	A	25	U	N3-C2-O2	-17.04	110.28	122.20
1	A	520	G	N3-C4-N9	-17.04	115.78	126.00
1	A	1236	G	C4-C5-N7	17.03	117.61	110.80
1	A	703	A	N1-C6-N6	-17.01	108.40	118.60
1	A	1197	C	N1-C2-O2	17.00	129.10	118.90
1	A	1027	A	C5-C6-N1	17.00	126.20	117.70
1	A	864	A	C5-C6-N1	16.97	126.19	117.70
1	A	2457	A	C5-C6-N1	16.97	126.18	117.70
1	A	2543	G	OP1-P-OP2	-16.96	94.16	119.60
1	A	1236	G	N7-C8-N9	16.95	121.58	113.10
1	A	2092	C	C6-N1-C2	-16.95	113.52	120.30
1	A	2550	G	N3-C4-C5	-16.95	120.12	128.60
1	A	907	G	C4-C5-C6	16.94	128.97	118.80
1	A	650	U	N3-C4-O4	-16.90	107.57	119.40
1	A	954	A	C4-C5-N7	16.90	119.15	110.70
1	A	1072	A	C8-N9-C4	-16.89	99.04	105.80
1	A	1045	A	O5'-P-OP2	-16.89	90.43	110.70
1	A	2486	A	C6-C5-N7	-16.88	120.48	132.30
1	A	1179	C	N3-C2-O2	-16.85	110.10	121.90
1	A	2664	U	O4'-C1'-N1	16.85	121.68	108.20
1	A	366	G	N7-C8-N9	16.85	121.52	113.10
1	A	1062	U	N3-C2-O2	-16.84	110.41	122.20
1	A	1227	U	C5-C4-O4	16.83	136.00	125.90
1	A	2047	A	C6-C5-N7	-16.83	120.52	132.30
1	A	2065	G	O5'-P-OP1	-16.81	90.52	110.70
1	A	1369	G	N3-C4-N9	16.80	136.08	126.00
1	A	1269	A	C4-C5-N7	16.80	119.10	110.70
1	A	1051	C	O5'-P-OP2	-16.79	90.55	110.70
1	A	642	U	N1-C2-N3	16.78	124.97	114.90
1	A	1024	A	C6-N1-C2	-16.77	108.54	118.60
1	A	2078	A	C5-C6-N6	-16.76	110.29	123.70
1	A	1008	C	C6-N1-C2	-16.76	113.60	120.30
1	A	1004	A	N9-C4-C5	16.75	112.50	105.80
1	A	2456	G	N9-C4-C5	16.73	112.09	105.40
1	A	1201	G	C6-C5-N7	-16.73	120.36	130.40
1	A	2043	U	C5-C6-N1	16.73	131.06	122.70
1	A	625	G	N9-C4-C5	16.73	112.09	105.40
1	A	22	C	N3-C4-N4	16.72	129.71	118.00
1	A	1395	G	C4-C5-N7	16.72	117.49	110.80
1	A	1029	C	N1-C2-O2	16.71	128.93	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	620	G	C4-C5-C6	-16.71	108.78	118.80
1	A	2664	U	N1-C2-O2	16.70	134.49	122.80
1	A	864	A	O4'-C1'-N9	16.67	121.54	108.20
1	A	1816	A	N7-C8-N9	16.67	122.14	113.80
1	A	2457	A	C5-N7-C8	-16.66	95.57	103.90
1	A	360	A	N1-C6-N6	-16.66	108.61	118.60
1	A	2899	A	C8-N9-C4	-16.65	99.14	105.80
1	A	908	A	N3-C4-N9	16.64	140.71	127.40
1	A	2516	G	N3-C4-N9	16.62	135.97	126.00
1	A	2461	A	N7-C8-N9	16.60	122.10	113.80
1	A	1043	U	N3-C4-C5	16.58	124.55	114.60
1	A	2806	U	N1-C2-N3	16.55	124.83	114.90
1	A	490	C	O4'-C1'-N1	16.55	121.44	108.20
1	A	1046	G	N3-C2-N2	16.53	131.47	119.90
1	A	2457	A	N3-C4-C5	-16.53	115.23	126.80
1	A	1228	A	N9-C4-C5	-16.51	99.19	105.80
1	A	2482	G	C2-N3-C4	-16.51	103.64	111.90
1	A	2077	C	O4'-C1'-N1	16.50	121.40	108.20
1	A	707	G	C6-N1-C2	-16.50	115.20	125.10
1	A	2275	C	C2-N3-C4	-16.50	111.65	119.90
1	A	2483	C	N3-C2-O2	-16.49	110.36	121.90
1	A	907	G	N3-C2-N2	16.49	131.44	119.90
1	A	24	G	N1-C6-O6	-16.46	110.02	119.90
1	A	2093	C	C4-C5-C6	-16.46	109.17	117.40
1	A	1199	A	O4'-C1'-N9	16.44	121.36	108.20
1	A	2704	A	C8-N9-C4	-16.44	99.22	105.80
1	A	2597	G	C6-C5-N7	-16.44	120.53	130.40
1	A	1046	G	C4-C5-C6	16.44	128.66	118.80
1	A	965	G	N1-C2-N2	16.42	130.97	116.20
1	A	1000	G	N3-C4-N9	16.41	135.84	126.00
1	A	1066	G	N3-C4-N9	16.38	135.83	126.00
1	A	595	G	C5-C6-O6	16.38	138.43	128.60
1	A	420	A	C8-N9-C4	-16.37	99.25	105.80
1	A	2642	U	C5-C4-O4	16.35	135.71	125.90
1	A	445	G	C8-N9-C4	-16.34	99.86	106.40
1	A	2701	G	N1-C6-O6	-16.33	110.10	119.90
1	A	1227	U	C4-C5-C6	-16.32	109.91	119.70
1	A	1368	C	N3-C2-O2	-16.32	110.47	121.90
1	A	547	A	N1-C6-N6	16.32	128.39	118.60
1	A	2080	G	N9-C4-C5	16.31	111.92	105.40
1	A	373	A	N3-C4-N9	16.30	140.44	127.40
1	A	52	A	N7-C8-N9	16.29	121.94	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2486	A	C4-C5-C6	16.27	125.14	117.00
1	A	1017	A	C6-C5-N7	-16.26	120.92	132.30
1	A	872	U	N3-C2-O2	-16.26	110.82	122.20
1	A	2857	A	N7-C8-N9	16.26	121.93	113.80
1	A	37	C	C6-N1-C2	-16.25	113.80	120.30
1	A	125	A	N7-C8-N9	16.25	121.92	113.80
1	A	587	C	O4'-C1'-N1	16.24	121.19	108.20
1	A	1228	A	C5-N7-C8	-16.24	95.78	103.90
1	A	13	A	C2-N3-C4	16.23	118.72	110.60
1	A	2047	A	C4-C5-N7	16.23	118.82	110.70
1	A	2379	A	O5'-P-OP1	16.23	130.17	110.70
1	A	2019	G	C8-N9-C4	-16.22	99.91	106.40
1	A	2473	G	C5-N7-C8	-16.21	96.20	104.30
1	A	2394	G	N3-C4-N9	-16.20	116.28	126.00
1	A	1198	G	N7-C8-N9	16.20	121.20	113.10
1	A	2019	G	C4-C5-N7	-16.20	104.32	110.80
1	A	2065	G	N9-C4-C5	-16.19	98.92	105.40
1	A	211	C	C6-N1-C2	-16.18	113.83	120.30
1	A	2080	G	N1-C2-N2	16.18	130.76	116.20
1	A	1256	U	N3-C2-O2	-16.17	110.88	122.20
1	A	1369	G	N7-C8-N9	16.17	121.18	113.10
1	A	587	C	N3-C4-N4	-16.16	106.69	118.00
1	A	2457	A	C5-C6-N6	-16.14	110.79	123.70
1	A	2056	G	N1-C2-N3	16.13	133.58	123.90
1	A	721	A	C5-N7-C8	-16.13	95.84	103.90
1	A	2472	G	C4-C5-N7	-16.13	104.35	110.80
1	A	2510	C	N3-C2-O2	-16.12	110.61	121.90
1	A	1020	G	N1-C2-N2	-16.10	101.71	116.20
1	A	2642	U	N1-C2-N3	16.06	124.54	114.90
1	A	241	C	N1-C2-O2	16.04	128.53	118.90
1	A	650	U	C5-C4-O4	16.03	135.52	125.90
1	A	2797	C	C5-C6-N1	16.02	129.01	121.00
1	A	2517	G	N3-C2-N2	-16.01	108.69	119.90
1	A	2093	C	C2-N1-C1'	-16.01	101.19	118.80
1	A	1297	G	C4-N9-C1'	16.00	147.31	126.50
1	A	2090	C	N1-C2-O2	16.00	128.50	118.90
1	A	907	G	N1-C2-N2	-15.99	101.81	116.20
1	A	2856	U	C6-N1-C2	-15.97	111.42	121.00
1	A	2275	C	N3-C4-C5	15.93	128.27	121.90
1	A	2481	G	C4-C5-C6	15.92	128.35	118.80
1	A	644	C	C5'-C4'-O4'	15.91	128.19	109.10
1	A	2645	G	N3-C4-N9	15.91	135.54	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2027	G	N9-C4-C5	15.89	111.76	105.40
1	A	707	G	C4-C5-N7	-15.88	104.45	110.80
1	A	633	A	N7-C8-N9	15.88	121.74	113.80
1	A	1010	G	N1-C6-O6	15.88	129.43	119.90
1	A	2845	G	N3-C2-N2	-15.87	108.79	119.90
1	A	2043	U	O5'-P-OP1	-15.87	91.42	105.70
1	A	2090	C	C6-N1-C2	-15.87	113.95	120.30
1	A	1241	A	N1-C6-N6	-15.86	109.08	118.60
1	A	906	A	C8-N9-C4	-15.86	99.46	105.80
1	A	703	A	C8-N9-C4	-15.85	99.46	105.80
1	A	480	U	N3-C4-O4	-15.83	108.32	119.40
1	A	1257	G	O5'-P-OP2	-15.83	91.45	105.70
1	A	332	A	N3-C4-C5	-15.83	115.72	126.80
1	A	1020	G	C5-C6-O6	-15.82	119.11	128.60
1	A	2473	G	N3-C2-N2	-15.81	108.83	119.90
1	A	2443	C	N1-C2-O2	15.81	128.38	118.90
1	A	532	C	C5-C6-N1	15.80	128.90	121.00
1	A	262	G	N9-C4-C5	-15.79	99.08	105.40
1	A	908	A	C6-N1-C2	-15.79	109.13	118.60
1	A	1032	A	C4-C5-N7	15.79	118.59	110.70
1	A	1185	U	O5'-P-OP2	15.77	129.63	110.70
1	A	541	G	C2-N3-C4	15.76	119.78	111.90
1	A	2483	C	C5-C6-N1	15.75	128.88	121.00
1	A	707	G	N9-C4-C5	15.75	111.70	105.40
1	A	2060	A	C2-N3-C4	15.74	118.47	110.60
1	A	2275	C	C6-N1-C2	15.72	126.59	120.30
1	A	24	G	C2-N3-C4	15.71	119.75	111.90
1	A	1696	C	N1-C2-O2	15.69	128.31	118.90
1	A	1020	G	C4-N9-C1'	15.69	146.90	126.50
1	A	620	G	C2-N3-C4	15.68	119.74	111.90
1	A	990	G	N1-C2-N2	-15.68	102.09	116.20
1	A	2309	G	N9-C4-C5	15.67	111.67	105.40
1	A	2845	G	C5-N7-C8	-15.66	96.47	104.30
1	A	1207	G	C5-C6-N1	-15.65	103.67	111.50
1	A	1027	A	C4-C5-N7	-15.65	102.87	110.70
1	A	2517	G	C8-N9-C4	-15.64	100.14	106.40
1	A	2527	U	C6-N1-C2	-15.64	111.62	121.00
1	A	2031	G	C6-N1-C2	-15.63	115.72	125.10
1	A	644	C	C6-N1-C2	-15.63	114.05	120.30
1	A	2568	A	C4-C5-N7	15.61	118.51	110.70
1	A	906	A	N9-C4-C5	15.61	112.04	105.80
1	A	1179	C	C6-N1-C2	-15.59	114.06	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1195	A	N7-C8-N9	15.59	121.60	113.80
1	A	1297	G	N1-C2-N2	-15.59	102.17	116.20
1	A	2593	A	N9-C4-C5	15.59	112.03	105.80
1	A	1024	A	N9-C4-C5	15.58	112.03	105.80
1	A	2461	A	C5-N7-C8	-15.56	96.12	103.90
1	A	2083	G	N1-C2-N2	-15.56	102.19	116.20
1	A	996	G	C8-N9-C4	-15.56	100.18	106.40
1	A	629	A	C5-N7-C8	-15.55	96.12	103.90
1	A	863	G	C6-C5-N7	-15.55	121.07	130.40
1	A	428	G	C6-C5-N7	15.54	139.73	130.40
1	A	1079	U	C6-N1-C2	-15.53	111.68	121.00
1	A	1029	C	C5-C4-N4	-15.53	109.33	120.20
1	A	520	G	N3-C2-N2	-15.52	109.04	119.90
1	A	1034	A	O4'-C1'-N9	-15.52	95.78	108.20
1	A	1295	C	N1-C2-O2	15.51	128.21	118.90
1	A	241	C	C2-N1-C1'	15.51	135.85	118.80
1	A	868	A	C5-N7-C8	-15.48	96.16	103.90
1	A	1009	C	C6-N1-C2	-15.48	114.11	120.30
1	A	1046	G	N3-C4-C5	-15.46	120.87	128.60
1	A	874	A	O5'-P-OP1	-15.46	91.78	105.70
1	A	1231	A	N9-C4-C5	-15.45	99.62	105.80
1	A	1241	A	C8-N9-C4	-15.45	99.62	105.80
1	A	2081	A	C4-C5-C6	-15.45	109.28	117.00
1	A	420	A	N7-C8-N9	15.44	121.52	113.80
1	A	1004	A	C5-C6-N6	15.39	136.01	123.70
1	A	1046	G	N1-C2-N2	-15.39	102.35	116.20
1	A	1705	G	C2-N3-C4	15.36	119.58	111.90
1	A	366	G	C5-C6-N1	-15.34	103.83	111.50
1	A	1047	G	N3-C4-N9	15.33	135.20	126.00
1	A	1056	U	O5'-P-OP2	-15.31	91.92	105.70
1	A	2080	G	N3-C2-N2	-15.31	109.18	119.90
1	A	626	G	N7-C8-N9	15.30	120.75	113.10
1	A	2759	G	N1-C2-N3	15.30	133.08	123.90
1	A	965	G	N9-C4-C5	15.30	111.52	105.40
1	A	692	G	N7-C8-N9	15.29	120.75	113.10
1	A	2705	U	O5'-P-OP2	-15.30	91.93	105.70
1	A	2486	A	C5-N7-C8	-15.29	96.25	103.90
1	A	2546	U	N3-C2-O2	-15.29	111.50	122.20
1	A	615	A	C5-C6-N1	15.29	125.34	117.70
1	A	2860	U	C5-C6-N1	15.28	130.34	122.70
1	A	993	C	O5'-P-OP1	-15.27	91.96	105.70
1	A	2525	C	C5'-C4'-O4'	15.26	127.42	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	648	G	C8-N9-C4	-15.26	100.30	106.40
1	A	531	C	C5-C6-N1	15.25	128.62	121.00
1	A	1321	A	N1-C6-N6	-15.24	109.45	118.60
1	A	2031	G	C8-N9-C4	-15.24	100.30	106.40
1	A	893	G	C5-C6-N1	15.23	119.12	111.50
1	A	908	A	C4-C5-C6	15.23	124.62	117.00
1	A	954	A	N1-C6-N6	15.23	127.74	118.60
1	A	1201	G	C4-C5-N7	15.23	116.89	110.80
1	A	2275	C	N3-C4-N4	-15.23	107.34	118.00
1	A	2546	U	N1-C2-N3	15.22	124.03	114.90
1	A	1046	G	C4-N9-C1'	15.21	146.27	126.50
1	A	2044	C	N3-C2-O2	-15.20	111.26	121.90
1	A	1044	A	N9-C4-C5	15.19	111.88	105.80
1	A	1198	G	C8-N9-C4	-15.18	100.33	106.40
1	A	608	C	N1-C2-O2	15.16	128.00	118.90
1	A	1017	A	C5-C6-N6	-15.16	111.57	123.70
1	A	1207	G	C4-C5-C6	15.16	127.90	118.80
1	A	1032	A	C5-C6-N6	-15.16	111.57	123.70
1	A	521	U	N3-C2-O2	-15.16	111.59	122.20
1	A	1295	C	C2-N3-C4	-15.15	112.32	119.90
1	A	526	A	C2-N3-C4	15.15	118.17	110.60
31	a	1155	C	N1-C2-O2	15.14	127.99	118.90
1	A	612	U	N3-C4-O4	-15.14	108.80	119.40
1	A	474	A	O4'-C1'-N9	15.14	120.31	108.20
1	A	2082	C	C6-N1-C2	-15.12	114.25	120.30
1	A	2443	C	C2-N1-C1'	15.12	135.43	118.80
1	A	547	A	C6-C5-N7	-15.11	121.72	132.30
1	A	835	U	N3-C2-O2	-15.11	111.62	122.20
1	A	846	G	N9-C4-C5	15.09	111.44	105.40
1	A	1181	G	C8-N9-C4	15.09	112.44	106.40
1	A	1369	G	C8-N9-C1'	-15.09	107.38	127.00
1	A	2845	G	C2-N3-C4	-15.09	104.36	111.90
1	A	650	U	O4'-C1'-N1	15.07	120.26	108.20
1	A	1194	U	C5-C6-N1	15.07	130.24	122.70
1	A	2442	G	N3-C4-C5	-15.07	121.07	128.60
1	A	2867	U	N3-C2-O2	-15.07	111.65	122.20
1	A	995	U	C5-C4-O4	-15.06	116.86	125.90
1	A	1395	G	C5-N7-C8	-15.06	96.77	104.30
1	A	2031	G	N3-C4-N9	-15.06	116.97	126.00
1	A	2525	C	N3-C4-C5	15.05	127.92	121.90
1	A	883	C	C6-N1-C2	15.05	126.32	120.30
1	A	2026	C	C2-N3-C4	-15.02	112.39	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2321	C	C5-C6-N1	15.02	128.51	121.00
1	A	1007	U	O5'-P-OP1	-15.02	92.18	105.70
1	A	1705	G	C4-C5-C6	-15.01	109.79	118.80
1	A	37	C	C2-N1-C1'	15.00	135.30	118.80
1	A	1000	G	C5-N7-C8	-14.99	96.81	104.30
1	A	846	G	N1-C6-O6	-14.98	110.91	119.90
1	A	991	A	C5-C6-N1	14.98	125.19	117.70
1	A	1044	A	C2-N3-C4	14.97	118.09	110.60
1	A	45	G	C4-N9-C1'	14.97	145.96	126.50
1	A	908	A	N3-C4-C5	-14.97	116.32	126.80
1	A	2482	G	C5-C6-N1	-14.96	104.02	111.50
1	A	2093	C	N3-C2-O2	-14.95	111.44	121.90
1	A	366	G	C5-N7-C8	-14.95	96.83	104.30
1	A	366	G	C8-N9-C4	-14.95	100.42	106.40
1	A	868	A	C4-C5-N7	14.95	118.17	110.70
1	A	1175	G	C4-C5-N7	14.93	116.77	110.80
1	A	2797	C	C6-N1-C2	-14.93	114.33	120.30
1	A	1197	C	N3-C2-O2	-14.93	111.45	121.90
1	A	1002	U	C6-N1-C2	-14.91	112.06	121.00
1	A	2461	A	N1-C6-N6	14.91	127.54	118.60
1	A	2523	C	N3-C4-C5	14.91	127.86	121.90
1	A	2094	G	C4-N9-C1'	14.90	145.87	126.50
1	A	262	G	C8-N9-C4	14.89	112.36	106.40
1	A	606	G	N1-C2-N2	-14.89	102.80	116.20
1	A	368	A	N9-C4-C5	-14.89	99.84	105.80
1	A	2520	U	C2-N3-C4	-14.89	118.07	127.00
1	A	2478	A	N9-C4-C5	14.89	111.75	105.80
1	A	22	C	C5-C6-N1	14.88	128.44	121.00
1	A	2056	G	C6-C5-N7	-14.88	121.47	130.40
1	A	893	G	N3-C4-C5	-14.87	121.17	128.60
1	A	2597	G	C4-C5-C6	14.87	127.72	118.80
1	A	1289	A	C8-N9-C4	14.87	111.75	105.80
1	A	2915	C	C6-N1-C2	-14.87	114.35	120.30
1	A	493	A	C8-N9-C4	-14.86	99.86	105.80
1	A	1028	G	N3-C4-N9	14.86	134.92	126.00
1	A	905	U	C6-N1-C2	-14.85	112.09	121.00
2	B	76	A	C6-C5-N7	-14.85	121.91	132.30
1	A	650	U	C2-N3-C4	-14.85	118.09	127.00
1	A	2845	G	C8-N9-C4	-14.84	100.46	106.40
1	A	2321	C	C6-N1-C2	-14.84	114.36	120.30
1	A	368	A	N3-C4-N9	14.83	139.27	127.40
1	A	615	A	C4-C5-C6	-14.83	109.59	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	27	G	C5-C6-O6	14.82	137.50	128.60
1	A	2456	G	C6-N1-C2	-14.82	116.20	125.10
1	A	631	U	O5'-P-OP2	-14.82	92.36	105.70
1	A	1227	U	N1-C2-O2	14.82	133.18	122.80
1	A	1027	A	N3-C4-C5	-14.82	116.43	126.80
1	A	2812	U	O5'-P-OP2	-14.82	92.37	105.70
1	A	2800	U	N3-C4-O4	-14.80	109.04	119.40
1	A	626	G	C4-C5-C6	14.79	127.67	118.80
1	A	1297	G	C4-C5-C6	14.76	127.66	118.80
1	A	363	A	N9-C4-C5	-14.76	99.90	105.80
1	A	2802	A	C8-N9-C4	-14.74	99.90	105.80
1	A	2863	G	N3-C2-N2	14.73	130.21	119.90
1	A	2578	C	C6-N1-C2	-14.73	114.41	120.30
1	A	861	C	N3-C4-C5	-14.72	116.01	121.90
1	A	1367	C	C6-N1-C2	-14.72	114.41	120.30
1	A	1020	G	C8-N9-C1'	-14.72	107.87	127.00
1	A	1020	G	C4-C5-C6	14.70	127.62	118.80
1	A	1297	G	N3-C4-N9	14.69	134.81	126.00
1	A	2090	C	N3-C2-O2	-14.68	111.62	121.90
1	A	2667	G	C6-N1-C2	-14.68	116.29	125.10
1	A	1031	C	N3-C4-C5	14.67	127.77	121.90
1	A	2668	A	C8-N9-C4	-14.65	99.94	105.80
1	A	1288	G	C8-N9-C4	-14.65	100.54	106.40
1	A	521	U	C2-N1-C1'	14.64	135.26	117.70
1	A	1264	A	N1-C6-N6	-14.63	109.82	118.60
1	A	459	C	N1-C2-O2	14.63	127.68	118.90
1	A	1182	G	C5-C6-N1	14.63	118.81	111.50
1	A	620	G	C6-N1-C2	-14.61	116.33	125.10
1	A	2395	C	C6-N1-C2	-14.61	114.45	120.30
1	A	2845	G	N7-C8-N9	14.61	120.40	113.10
1	A	2597	G	C4-N9-C1'	14.60	145.48	126.50
1	A	2645	G	N9-C4-C5	-14.60	99.56	105.40
1	A	2094	G	C4-C5-C6	14.59	127.56	118.80
1	A	180	G	C8-N9-C4	-14.56	100.58	106.40
1	A	210	A	C2-N3-C4	14.56	117.88	110.60
1	A	355	G	C6-C5-N7	-14.56	121.67	130.40
1	A	633	A	C8-N9-C4	-14.55	99.98	105.80
1	A	1013	U	C6-N1-C2	-14.55	112.27	121.00
1	A	1043	U	C5-C4-O4	-14.55	117.17	125.90
1	A	2390	U	N3-C2-O2	-14.54	112.02	122.20
1	A	265	A	C5-C6-N1	14.54	124.97	117.70
1	A	576	U	O4'-C1'-N1	14.53	119.82	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	366	G	C2-N3-C4	-14.52	104.64	111.90
1	A	912	C	C6-N1-C2	-14.52	114.49	120.30
1	A	2058	A	N1-C2-N3	14.51	136.56	129.30
1	A	1001	A	N7-C8-N9	14.51	121.05	113.80
1	A	1175	G	C2-N3-C4	-14.51	104.65	111.90
1	A	1225	G	N1-C2-N3	14.50	132.60	123.90
1	A	1176	U	N1-C2-O2	14.49	132.94	122.80
1	A	493	A	N1-C2-N3	-14.48	122.06	129.30
1	A	541	G	C8-N9-C4	-14.48	100.61	106.40
1	A	2029	G	N9-C4-C5	14.48	111.19	105.40
1	A	332	A	C5-N7-C8	14.47	111.14	103.90
1	A	586	C	C6-N1-C2	-14.47	114.51	120.30
1	A	2443	C	C6-N1-C2	-14.47	114.51	120.30
1	A	2806	U	N3-C2-O2	-14.47	112.07	122.20
1	A	503	A	C8-N9-C4	-14.45	100.02	105.80
1	A	2456	G	N1-C2-N3	14.45	132.57	123.90
1	A	2868	G	C5-N7-C8	-14.44	97.08	104.30
1	A	1000	G	N9-C4-C5	-14.43	99.63	105.40
1	A	2863	G	C4-N9-C1'	14.43	145.25	126.50
1	A	1056	U	OP1-P-OP2	-14.42	97.97	119.60
1	A	2523	C	O4'-C1'-N1	14.42	119.74	108.20
1	A	1301	U	C2-N1-C1'	14.42	135.00	117.70
1	A	530	C	C5-C6-N1	14.42	128.21	121.00
1	A	864	A	C5-C6-N6	14.41	135.23	123.70
1	A	1357	G	C5-C6-N1	14.41	118.71	111.50
1	A	2488	C	C2-N1-C1'	14.41	134.66	118.80
1	A	1235	C	N3-C2-O2	-14.41	111.81	121.90
1	A	576	U	N3-C2-O2	-14.40	112.12	122.20
1	A	649	U	C5-C4-O4	-14.40	117.26	125.90
1	A	117	A	N3-C4-C5	-14.39	116.73	126.80
1	A	2894	C	N1-C2-O2	14.37	127.52	118.90
1	A	2523	C	O5'-P-OP2	-14.37	92.77	105.70
1	A	2065	G	C5-C6-O6	-14.37	119.98	128.60
1	A	1272	U	N3-C2-O2	-14.37	112.14	122.20
1	A	2497	G	C6-C5-N7	-14.35	121.79	130.40
1	A	1010	G	C6-C5-N7	-14.34	121.80	130.40
1	A	1599	G	N3-C2-N2	-14.33	109.87	119.90
1	A	2801	C	N1-C2-O2	14.33	127.50	118.90
1	A	1230	G	N1-C6-O6	14.33	128.50	119.90
1	A	53	A	C8-N9-C4	-14.32	100.07	105.80
1	A	1283	G	C5-N7-C8	-14.32	97.14	104.30
1	A	582	G	N3-C4-N9	14.31	134.59	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	858	U	N3-C2-O2	-14.31	112.18	122.20
1	A	1057	A	O4'-C1'-N9	14.30	119.64	108.20
1	A	630	G	N9-C4-C5	14.29	111.12	105.40
1	A	1236	G	N1-C6-O6	14.28	128.47	119.90
1	A	2806	U	C4-C5-C6	14.28	128.27	119.70
1	A	48	G	C8-N9-C4	-14.27	100.69	106.40
1	A	547	A	C5-N7-C8	-14.27	96.76	103.90
1	A	997	G	C5-C6-N1	14.27	118.64	111.50
1	A	2053	U	C2-N3-C4	14.27	135.56	127.00
1	A	1001	A	O4'-C1'-N9	14.27	119.62	108.20
1	A	119	U	N3-C4-O4	14.27	129.39	119.40
1	A	2064	A	C5-C6-N1	14.26	124.83	117.70
1	A	893	G	C5-C6-O6	-14.26	120.04	128.60
1	A	421	C	C5-C6-N1	14.25	128.13	121.00
1	A	2473	G	C8-N9-C1'	14.24	145.51	127.00
1	A	1287	U	C2-N1-C1'	14.24	134.78	117.70
1	A	1274	G	C4-N9-C1'	14.23	145.00	126.50
2	B	76	A	N1-C6-N6	14.23	127.14	118.60
1	A	633	A	C4-C5-C6	14.23	124.11	117.00
1	A	984	G	C5-C6-O6	-14.23	120.06	128.60
1	A	584	G	N1-C6-O6	-14.22	111.36	119.90
1	A	14	A	C5-C6-N1	14.22	124.81	117.70
1	A	2473	G	N9-C4-C5	14.22	111.09	105.40
1	A	1195	A	C8-N9-C4	-14.21	100.12	105.80
1	A	2058	A	C8-N9-C4	-14.19	100.12	105.80
1	A	2083	G	C4-N9-C1'	14.19	144.94	126.50
1	A	240	C	C6-N1-C2	-14.18	114.63	120.30
1	A	639	U	N3-C2-O2	-14.18	112.27	122.20
1	A	193	A	C5-C6-N6	-14.18	112.36	123.70
1	A	1369	G	C4-C5-C6	14.18	127.31	118.80
1	A	2078	A	N1-C6-N6	14.16	127.10	118.60
1	A	2845	G	N3-C4-N9	-14.16	117.50	126.00
1	A	2761	C	C6-N1-C2	-14.15	114.64	120.30
1	A	180	G	N3-C4-C5	-14.15	121.53	128.60
1	A	2800	U	N3-C2-O2	-14.14	112.30	122.20
1	A	2081	A	C6-C5-N7	14.14	142.20	132.30
1	A	2863	G	C8-N9-C1'	-14.14	108.62	127.00
1	A	1050	C	C2-N1-C1'	14.14	134.35	118.80
1	A	2090	C	C2-N1-C1'	14.13	134.34	118.80
1	A	707	G	C8-N9-C4	-14.13	100.75	106.40
1	A	2804	G	O5'-P-OP1	14.12	127.64	110.70
1	A	2482	G	C4-C5-N7	-14.12	105.15	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	424	C	N3-C2-O2	-14.11	112.02	121.90
1	A	117	A	C2-N3-C4	14.11	117.65	110.60
1	A	2478	A	C4-C5-N7	-14.11	103.64	110.70
1	A	526	A	N3-C4-C5	-14.11	116.92	126.80
1	A	2510	C	N1-C2-O2	14.10	127.36	118.90
1	A	2481	G	C5-C6-O6	14.09	137.06	128.60
1	A	375	A	C8-N9-C4	-14.09	100.16	105.80
1	A	1201	G	N7-C8-N9	14.09	120.14	113.10
1	A	606	G	C8-N9-C4	-14.08	100.77	106.40
1	A	2550	G	N1-C6-O6	-14.08	111.45	119.90
1	A	1198	G	C4-N9-C1'	14.08	144.80	126.50
1	A	624	C	C2-N3-C4	-14.07	112.86	119.90
1	A	1369	G	C6-C5-N7	-14.07	121.96	130.40
1	A	1031	C	N3-C4-N4	-14.06	108.16	118.00
1	A	2701	G	C5-C6-N1	14.05	118.52	111.50
1	A	2740	A	C5-N7-C8	-14.04	96.88	103.90
1	A	703	A	N7-C8-N9	14.03	120.81	113.80
1	A	1033	G	N3-C4-C5	-14.03	121.59	128.60
1	A	2460	A	C4-C5-N7	14.02	117.71	110.70
1	A	1240	U	C5-C6-N1	14.02	129.71	122.70
1	A	2046	U	N3-C4-O4	14.02	129.21	119.40
1	A	624	C	N3-C4-C5	14.01	127.50	121.90
1	A	2800	U	C4-C5-C6	-14.00	111.30	119.70
1	A	1297	G	C8-N9-C1'	-13.99	108.81	127.00
1	A	566	U	N1-C2-O2	13.99	132.59	122.80
1	A	1028	G	N3-C4-C5	-13.99	121.61	128.60
1	A	2025	A	C5-N7-C8	-13.99	96.91	103.90
1	A	996	G	C5-N7-C8	-13.97	97.31	104.30
1	A	366	G	C6-C5-N7	-13.97	122.02	130.40
1	A	2482	G	N9-C4-C5	13.96	110.99	105.40
1	A	2805	A	C8-N9-C4	-13.95	100.22	105.80
1	A	2551	G	C6-C5-N7	-13.95	122.03	130.40
1	A	1020	G	N3-C2-N2	13.94	129.66	119.90
1	A	1031	C	N3-C2-O2	-13.95	112.14	121.90
1	A	1050	C	N3-C4-N4	13.94	127.76	118.00
1	A	640	G	O5'-P-OP2	-13.94	93.16	105.70
1	A	1044	A	C4-C5-C6	13.94	123.97	117.00
1	A	375	A	C2-N3-C4	13.94	117.57	110.60
1	A	2443	C	N3-C2-O2	-13.93	112.15	121.90
1	A	1364	C	C6-N1-C2	-13.93	114.73	120.30
1	A	1815	C	C6-N1-C2	-13.93	114.73	120.30
1	A	1268	C	C6-N1-C2	-13.92	114.73	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1168	C	C6-N1-C2	-13.92	114.73	120.30
1	A	2031	G	C4-C5-N7	-13.92	105.23	110.80
1	A	2055	U	N1-C2-N3	13.92	123.25	114.90
1	A	2868	G	C8-N9-C4	-13.92	100.83	106.40
1	A	1006	G	C5-N7-C8	-13.92	97.34	104.30
1	A	1268	C	C5-C6-N1	13.91	127.96	121.00
1	A	494	U	C5-C4-O4	13.91	134.25	125.90
1	A	2887	G	N3-C4-N9	13.91	134.35	126.00
1	A	895	U	N3-C2-O2	-13.91	112.46	122.20
1	A	2054	G	N1-C6-O6	-13.90	111.56	119.90
2	B	85	U	C6-N1-C2	-13.90	112.66	121.00
1	A	954	A	N3-C4-N9	13.89	138.52	127.40
1	A	1283	G	C4-C5-N7	13.89	116.36	110.80
1	A	1011	U	C5-C6-N1	13.88	129.64	122.70
1	A	352	A	N1-C6-N6	-13.88	110.27	118.60
1	A	1283	G	C4-C5-C6	-13.87	110.48	118.80
1	A	1201	G	C5-N7-C8	-13.86	97.37	104.30
1	A	2381	A	C8-N9-C4	13.86	111.34	105.80
1	A	2597	G	C8-N9-C4	-13.86	100.86	106.40
1	A	624	C	N3-C2-O2	-13.83	112.22	121.90
1	A	360	A	C8-N9-C4	-13.83	100.27	105.80
1	A	548	A	C2-N3-C4	-13.82	103.69	110.60
1	A	1274	G	N1-C2-N2	-13.82	103.76	116.20
1	A	95	A	C5-C6-N6	-13.82	112.64	123.70
1	A	595	G	C6-C5-N7	13.82	138.69	130.40
1	A	908	A	C6-C5-N7	-13.82	122.63	132.30
1	A	523	A	O5'-P-OP1	-13.81	93.27	105.70
1	A	2275	C	N3-C2-O2	-13.81	112.23	121.90
1	A	1321	A	C2-N3-C4	13.81	117.50	110.60
1	A	1004	A	C8-N9-C4	-13.79	100.28	105.80
1	A	488	G	C8-N9-C4	-13.79	100.88	106.40
1	A	859	C	N3-C2-O2	-13.79	112.25	121.90
1	A	882	C	N3-C2-O2	-13.79	112.25	121.90
1	A	625	G	N3-C4-N9	-13.78	117.73	126.00
1	A	712	U	N1-C2-N3	13.78	123.17	114.90
1	A	2673	C	N1-C2-O2	13.78	127.17	118.90
1	A	368	A	C4-C5-C6	13.76	123.88	117.00
1	A	2894	C	C6-N1-C2	-13.76	114.80	120.30
1	A	2396	A	C4-C5-C6	13.75	123.87	117.00
1	A	964	U	N3-C2-O2	-13.74	112.58	122.20
1	A	353	A	O4'-C1'-N9	13.74	119.19	108.20
1	A	2473	G	N3-C4-N9	-13.74	117.76	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2761	C	N3-C4-C5	-13.74	116.41	121.90
1	A	2702	A	N1-C6-N6	-13.73	110.36	118.60
1	A	1322	G	N1-C6-O6	13.73	128.14	119.90
1	A	2031	G	C4-C5-C6	-13.72	110.57	118.80
1	A	2568	A	N9-C4-C5	-13.72	100.31	105.80
1	A	1195	A	C5-N7-C8	-13.71	97.04	103.90
1	A	1271	G	C2-N3-C4	13.71	118.75	111.90
1	A	2442	G	N3-C4-N9	13.71	134.22	126.00
1	A	587	C	C2-N1-C1'	-13.71	103.72	118.80
1	A	2642	U	N3-C4-O4	-13.70	109.81	119.40
1	A	2856	U	N1-C2-O2	13.70	132.39	122.80
1	A	14	A	C5-C6-N6	-13.69	112.75	123.70
1	A	984	G	C4-C5-N7	13.69	116.28	110.80
1	A	376	A	N1-C6-N6	-13.68	110.39	118.60
1	A	1010	G	C2-N3-C4	-13.68	105.06	111.90
1	A	643	G	N3-C2-N2	-13.68	110.32	119.90
1	A	1357	G	N1-C6-O6	-13.67	111.70	119.90
1	A	2759	G	C2-N3-C4	-13.67	105.06	111.90
1	A	1251	A	N7-C8-N9	13.67	120.64	113.80
1	A	349	U	C5-C6-N1	13.67	129.53	122.70
1	A	571	A	C4-C5-C6	-13.67	110.17	117.00
1	A	2295	A	N9-C4-C5	13.66	111.27	105.80
1	A	362	C	O5'-P-OP2	-13.66	93.40	105.70
1	A	1066	G	N1-C2-N2	-13.66	103.91	116.20
1	A	2478	A	C6-C5-N7	13.66	141.86	132.30
1	A	35	G	N1-C2-N3	13.65	132.09	123.90
1	A	218	G	C8-N9-C4	-13.65	100.94	106.40
1	A	2662	U	C2-N3-C4	-13.64	118.81	127.00
1	A	2093	C	C6-N1-C1'	13.63	137.16	120.80
1	A	17	G	C4-C5-N7	13.63	116.25	110.80
1	A	2704	A	N3-C4-N9	13.63	138.30	127.40
1	A	621	A	N1-C6-N6	-13.62	110.43	118.60
1	A	125	A	C4-C5-N7	13.62	117.51	110.70
1	A	1195	A	C6-C5-N7	-13.62	122.77	132.30
1	A	1194	U	C5-C4-O4	-13.61	117.73	125.90
1	A	1024	A	N3-C4-C5	-13.61	117.27	126.80
1	A	1308	C	C5-C6-N1	-13.61	114.19	121.00
1	A	2668	A	C6-C5-N7	-13.61	122.78	132.30
1	A	494	U	C6-N1-C2	-13.60	112.84	121.00
1	A	1288	G	N3-C2-N2	13.60	129.42	119.90
1	A	533	C	N3-C2-O2	-13.60	112.38	121.90
1	A	1980	A	C5-N7-C8	-13.59	97.11	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2758	G	C2-N3-C4	-13.59	105.11	111.90
1	A	703	A	C5-C6-N6	13.58	134.56	123.70
1	A	994	A	C8-N9-C4	13.57	111.23	105.80
1	A	1174	U	O4'-C1'-N1	13.57	119.06	108.20
1	A	666	A	C8-N9-C4	-13.57	100.37	105.80
1	A	2368	G	N3-C4-N9	-13.57	117.86	126.00
1	A	547	A	C5-C6-N6	-13.57	112.85	123.70
1	A	1692	C	C5-C4-N4	-13.57	110.70	120.20
1	A	496	G	C4-N9-C1'	13.55	144.12	126.50
1	A	2517	G	N9-C4-C5	13.55	110.82	105.40
1	A	1041	G	O5'-P-OP1	-13.55	93.51	105.70
1	A	616	G	C4-C5-N7	-13.54	105.38	110.80
1	A	649	U	C5-C6-N1	13.54	129.47	122.70
1	A	1296	C	C6-N1-C2	-13.54	114.89	120.30
1	A	201	C	N1-C2-O2	13.53	127.02	118.90
1	A	368	A	C4-C5-N7	13.53	117.47	110.70
1	A	1234	G	C8-N9-C4	-13.53	100.99	106.40
1	A	2905	C	C6-N1-C2	-13.53	114.89	120.30
1	A	630	G	C5-C6-N1	-13.52	104.74	111.50
1	A	70	G	C4-C5-N7	-13.52	105.39	110.80
1	A	2026	C	N3-C4-C5	13.52	127.31	121.90
1	A	547	A	C4-C5-N7	13.51	117.45	110.70
1	A	1034	A	C5-C6-N6	13.50	134.50	123.70
1	A	1230	G	O5'-P-OP1	-13.49	93.56	105.70
1	A	2675	G	C2-N3-C4	13.48	118.64	111.90
1	A	2486	A	N3-C4-C5	-13.47	117.37	126.80
1	A	344	U	C5-C4-O4	13.47	133.98	125.90
1	A	892	U	C2-N1-C1'	-13.47	101.54	117.70
1	A	1289	A	N1-C6-N6	13.47	126.68	118.60
1	A	521	U	N1-C2-O2	13.47	132.23	122.80
1	A	572	C	C2-N1-C1'	13.46	133.61	118.80
1	A	2044	C	N1-C2-O2	13.46	126.98	118.90
2	B	85	U	N3-C2-O2	-13.46	112.78	122.20
1	A	541	G	N9-C4-C5	13.46	110.78	105.40
1	A	378	C	N1-C2-O2	13.46	126.97	118.90
1	A	2472	G	C8-N9-C4	-13.44	101.02	106.40
1	A	2080	G	C6-N1-C2	-13.44	117.03	125.10
1	A	2481	G	C8-N9-C1'	-13.44	109.53	127.00
1	A	556	U	O5'-P-OP1	-13.44	93.61	105.70
1	A	2080	G	C4-C5-C6	-13.42	110.75	118.80
1	A	349	U	C6-N1-C2	-13.42	112.95	121.00
1	A	2541	U	N3-C2-O2	-13.42	112.81	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2045	A	N7-C8-N9	13.42	120.51	113.80
1	A	363	A	C4-C5-N7	13.42	117.41	110.70
1	A	2054	G	C5-C6-O6	13.42	136.65	128.60
1	A	2094	G	N1-C2-N2	-13.42	104.13	116.20
1	A	2454	C	N3-C4-C5	-13.42	116.53	121.90
1	A	1028	G	C2-N3-C4	13.40	118.60	111.90
1	A	2541	U	N1-C2-N3	13.40	122.94	114.90
1	A	2570	G	N3-C4-C5	-13.40	121.90	128.60
1	A	497	U	O4'-C1'-N1	13.40	118.92	108.20
1	A	2653	C	N3-C2-O2	-13.39	112.53	121.90
1	A	1029	C	N3-C4-N4	13.38	127.37	118.00
1	A	1005	G	N3-C4-C5	-13.37	121.91	128.60
1	A	1034	A	O5'-P-OP1	-13.36	93.68	105.70
1	A	1271	G	C5-C6-N1	13.36	118.18	111.50
1	A	2055	U	N3-C2-O2	-13.36	112.85	122.20
1	A	2486	A	C4-N9-C1'	13.35	150.33	126.30
1	A	2863	G	N1-C2-N2	-13.35	104.18	116.20
1	A	1031	C	C5-C6-N1	-13.35	114.33	121.00
1	A	1230	G	C4-N9-C1'	13.35	143.85	126.50
1	A	606	G	N1-C6-O6	-13.33	111.90	119.90
1	A	712	U	C2-N3-C4	-13.33	119.00	127.00
1	A	1043	U	N1-C2-O2	13.32	132.13	122.80
1	A	1274	G	C6-C5-N7	-13.32	122.41	130.40
1	A	2661	A	C6-N1-C2	-13.32	110.61	118.60
1	A	1283	G	N3-C4-N9	-13.32	118.01	126.00
1	A	180	G	N7-C8-N9	13.31	119.75	113.10
1	A	526	A	C4-N9-C1'	13.31	150.26	126.30
1	A	1036	C	C4-C5-C6	-13.31	110.75	117.40
1	A	520	G	N1-C6-O6	-13.31	111.92	119.90
1	A	1264	A	C8-N9-C4	-13.30	100.48	105.80
1	A	954	A	N1-C2-N3	-13.29	122.66	129.30
1	A	2026	C	N3-C4-N4	-13.29	108.70	118.00
1	A	344	U	N1-C2-N3	13.28	122.87	114.90
1	A	2094	G	C8-N9-C4	-13.28	101.09	106.40
1	A	377	U	N3-C4-C5	-13.28	106.63	114.60
1	A	2047	A	O5'-P-OP1	-13.28	93.75	105.70
1	A	2274	A	C4-C5-N7	13.27	117.34	110.70
1	A	2063	C	C5-C6-N1	13.27	127.64	121.00
1	A	616	G	N3-C2-N2	-13.27	110.61	119.90
1	A	1032	A	C6-N1-C2	-13.26	110.64	118.60
1	A	563	G	N3-C4-N9	13.26	133.96	126.00
1	A	2456	G	N3-C4-C5	-13.26	121.97	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	863	G	C5-N7-C8	-13.26	97.67	104.30
1	A	860	U	O5'-P-OP2	-13.26	93.77	105.70
1	A	2053	U	N3-C4-C5	-13.26	106.65	114.60
1	A	2439	A	N1-C6-N6	13.26	126.55	118.60
1	A	954	A	C5-C6-N6	-13.25	113.10	123.70
1	A	530	C	C6-N1-C2	-13.25	115.00	120.30
1	A	572	C	N3-C4-C5	-13.24	116.60	121.90
1	A	2056	G	C4-N9-C1'	13.24	143.72	126.50
1	A	2863	G	C5-C6-N1	13.24	118.12	111.50
1	A	1705	G	N1-C2-N3	-13.23	115.96	123.90
1	A	2031	G	C2-N3-C4	13.22	118.51	111.90
1	A	503	A	C4-C5-N7	13.22	117.31	110.70
1	A	1040	A	C4-C5-N7	13.22	117.31	110.70
1	A	1033	G	C5-C6-N1	13.22	118.11	111.50
1	A	2434	A	C5-N7-C8	-13.22	97.29	103.90
1	A	1250	G	N3-C4-N9	13.22	133.93	126.00
1	A	1274	G	C6-N1-C2	-13.22	117.17	125.10
1	A	835	U	N1-C2-O2	13.21	132.05	122.80
1	A	907	G	C8-N9-C1'	-13.21	109.83	127.00
1	A	598	G	C4-C5-N7	13.20	116.08	110.80
1	A	2063	C	N3-C2-O2	-13.20	112.66	121.90
1	A	428	G	N1-C6-O6	-13.19	111.99	119.90
1	A	2597	G	C6-N1-C2	-13.19	117.19	125.10
1	A	1010	G	C5-C6-O6	-13.19	120.69	128.60
1	A	2830	A	C5-N7-C8	-13.18	97.31	103.90
1	A	2486	A	O5'-P-OP1	13.17	126.51	110.70
1	A	1040	A	C5-N7-C8	-13.17	97.31	103.90
1	A	479	C	N3-C4-N4	-13.16	108.79	118.00
1	A	595	G	N3-C2-N2	-13.16	110.69	119.90
1	A	2757	U	N1-C2-O2	13.15	132.01	122.80
1	A	883	C	N1-C2-O2	13.15	126.79	118.90
1	A	1288	G	N1-C2-N2	-13.15	104.37	116.20
1	A	506	A	C5-N7-C8	-13.14	97.33	103.90
1	A	965	G	N3-C4-N9	-13.14	118.11	126.00
1	A	1012	G	C4-C5-N7	13.14	116.06	110.80
1	A	1322	G	C5-C6-O6	-13.14	120.71	128.60
1	A	2025	A	N3-C4-C5	13.14	136.00	126.80
1	A	648	G	C4-C5-C6	13.14	126.68	118.80
1	A	1180	G	N3-C4-N9	13.14	133.88	126.00
1	A	2037	G	C5-C6-O6	13.14	136.48	128.60
1	A	2517	G	N3-C4-N9	-13.14	118.12	126.00
1	A	2381	A	N9-C4-C5	-13.14	100.54	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1269	A	C5-N7-C8	-13.14	97.33	103.90
1	A	2285	C	C2-N1-C1'	13.13	133.24	118.80
1	A	2461	A	C4-C5-N7	13.13	117.27	110.70
1	A	45	G	C8-N9-C1'	-13.13	109.93	127.00
1	A	649	U	C4-C5-C6	-13.12	111.83	119.70
1	A	1272	U	N1-C2-N3	13.12	122.77	114.90
1	A	421	C	C6-N1-C2	-13.11	115.06	120.30
1	A	2658	G	C8-N9-C4	-13.10	101.16	106.40
1	A	416	G	C5-C6-O6	13.09	136.45	128.60
1	A	612	U	N3-C4-C5	13.07	122.44	114.60
1	A	906	A	N3-C4-C5	-13.07	117.65	126.80
1	A	1200	A	N9-C4-C5	-13.07	100.57	105.80
1	A	2025	A	C2-N3-C4	-13.07	104.07	110.60
1	A	2888	A	N1-C6-N6	-13.07	110.76	118.60
1	A	1051	C	C6-N1-C2	-13.06	115.08	120.30
1	A	2667	G	N1-C6-O6	-13.06	112.06	119.90
1	A	912	C	C5-C4-N4	-13.06	111.06	120.20
1	A	959	C	N3-C4-C5	13.06	127.12	121.90
1	A	263	G	N7-C8-N9	13.05	119.63	113.10
1	A	527	G	C5-C6-O6	-13.05	120.77	128.60
1	A	1226	G	N1-C6-O6	-13.05	112.07	119.90
1	A	253	G	N9-C4-C5	13.05	110.62	105.40
1	A	616	G	N9-C4-C5	13.05	110.62	105.40
1	A	520	G	C5-C6-O6	13.04	136.43	128.60
1	A	1289	A	C5-C6-N6	-13.04	113.27	123.70
1	A	2604	A	N1-C6-N6	-13.03	110.78	118.60
1	A	1016	G	C6-N1-C2	-13.02	117.29	125.10
1	A	489	A	O4'-C1'-N9	13.02	118.61	108.20
1	A	606	G	C5-C6-N1	-13.02	104.99	111.50
1	A	2295	A	O5'-P-OP2	-13.02	93.98	105.70
1	A	548	A	C6-C5-N7	-13.01	123.19	132.30
1	A	1297	G	C6-C5-N7	-13.01	122.59	130.40
1	A	2394	G	N9-C4-C5	13.01	110.61	105.40
1	A	526	A	N3-C4-N9	13.01	137.81	127.40
1	A	2806	U	C6-N1-C2	-13.00	113.20	121.00
1	A	1168	C	N3-C2-O2	-13.00	112.80	121.90
1	A	1980	A	N7-C8-N9	13.00	120.30	113.80
1	A	2488	C	N3-C4-N4	12.99	127.09	118.00
1	A	565	G	N3-C4-C5	12.99	135.09	128.60
1	A	2392	G	C5-C6-O6	-12.99	120.81	128.60
1	A	563	G	C2-N3-C4	12.98	118.39	111.90
1	A	2078	A	C8-N9-C4	-12.97	100.61	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1063	U	N3-C2-O2	-12.97	113.12	122.20
1	A	2065	G	N1-C6-O6	12.97	127.68	119.90
1	A	1027	A	C6-C5-N7	12.97	141.38	132.30
1	A	2025	A	C4-C5-N7	12.97	117.18	110.70
1	A	2061	U	OP1-P-OP2	-12.96	100.16	119.60
1	A	2439	A	C5-C6-N6	-12.96	113.33	123.70
1	A	1181	G	N7-C8-N9	-12.94	106.63	113.10
1	A	198	A	C4-C5-C6	-12.94	110.53	117.00
1	A	1374	G	C6-C5-N7	-12.94	122.64	130.40
1	A	2019	G	C6-N1-C2	-12.94	117.34	125.10
1	A	770	G	OP1-P-O3'	-12.93	76.75	105.20
1	A	909	G	N1-C6-O6	-12.93	112.14	119.90
1	A	2363	A	C8-N9-C4	-12.93	100.63	105.80
1	A	2646	U	N3-C4-C5	12.91	122.35	114.60
1	A	198	A	C8-N9-C4	-12.90	100.64	105.80
1	A	2669	G	O5'-P-OP2	-12.90	94.09	105.70
1	A	1274	G	N7-C8-N9	12.90	119.55	113.10
1	A	2083	G	N3-C4-C5	-12.89	122.15	128.60
1	A	584	G	N3-C4-C5	-12.88	122.16	128.60
1	A	265	A	C6-N1-C2	-12.88	110.87	118.60
1	A	2471	G	C5-N7-C8	-12.88	97.86	104.30
1	A	2596	G	C8-N9-C4	-12.88	101.25	106.40
1	A	445	G	N3-C2-N2	-12.87	110.89	119.90
1	A	971	U	N1-C2-O2	12.87	131.81	122.80
1	A	2887	G	N1-C6-O6	-12.86	112.19	119.90
1	A	608	C	N3-C2-O2	-12.85	112.90	121.90
1	A	2060	A	O4'-C1'-N9	12.85	118.48	108.20
1	A	2898	U	C5-C4-O4	-12.85	118.19	125.90
1	A	582	G	N3-C2-N2	12.85	128.89	119.90
1	A	1236	G	C8-N9-C4	-12.85	101.26	106.40
1	A	1297	G	C5-C6-N1	-12.85	105.08	111.50
1	A	2655	U	C4-C5-C6	-12.85	111.99	119.70
1	A	1020	G	N7-C8-N9	12.84	119.52	113.10
1	A	377	U	N1-C2-O2	-12.83	113.82	122.80
1	A	2747	U	N3-C2-O2	-12.83	113.22	122.20
1	A	583	A	C5-C6-N1	12.82	124.11	117.70
1	A	967	C	C6-N1-C2	-12.82	115.17	120.30
1	A	2664	U	C2-N1-C1'	12.82	133.09	117.70
1	A	1019	A	N9-C4-C5	12.82	110.93	105.80
1	A	373	A	C2-N3-C4	12.81	117.00	110.60
1	A	368	A	N7-C8-N9	12.80	120.20	113.80
1	A	901	G	C8-N9-C4	12.80	111.52	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2277	G	N3-C2-N2	-12.79	110.94	119.90
1	A	1020	G	N3-C4-C5	-12.79	122.20	128.60
1	A	344	U	C6-N1-C1'	12.79	139.11	121.20
1	A	1367	C	N3-C2-O2	-12.79	112.94	121.90
1	A	381	G	C6-C5-N7	-12.78	122.73	130.40
1	A	1269	A	C6-C5-N7	-12.78	123.35	132.30
1	A	1182	G	N3-C2-N2	12.78	128.85	119.90
1	A	858	U	N1-C2-O2	12.77	131.74	122.80
1	A	376	A	C2-N3-C4	12.76	116.98	110.60
1	A	302	A	C5-C6-N1	12.76	124.08	117.70
1	A	2379	A	C8-N9-C4	-12.76	100.69	105.80
1	A	1816	A	C4-C5-N7	12.76	117.08	110.70
1	A	363	A	C6-C5-N7	-12.75	123.38	132.30
1	A	1228	A	C8-N9-C1'	-12.75	104.75	127.70
1	A	2636	U	C2-N1-C1'	12.75	133.00	117.70
1	A	2064	A	N7-C8-N9	12.75	120.17	113.80
1	A	595	G	C6-N1-C2	-12.74	117.45	125.10
1	A	352	A	C8-N9-C4	-12.74	100.70	105.80
1	A	860	U	N1-C2-O2	12.74	131.72	122.80
1	A	860	U	N3-C2-O2	-12.73	113.28	122.20
1	A	884	U	OP1-P-OP2	-12.73	100.50	119.60
1	A	1020	G	N1-C6-O6	12.73	127.54	119.90
1	A	2702	A	N1-C2-N3	12.73	135.66	129.30
1	A	1013	U	C5-C6-N1	12.73	129.06	122.70
1	A	1046	G	N1-C6-O6	12.73	127.54	119.90
1	A	2379	A	N7-C8-N9	12.73	120.16	113.80
1	A	2461	A	C6-C5-N7	-12.73	123.39	132.30
1	A	363	A	C5-C6-N6	-12.72	113.52	123.70
1	A	2863	G	C2-N3-C4	12.72	118.26	111.90
1	A	1283	G	N3-C4-C5	12.71	134.96	128.60
1	A	2902	A	C2-N3-C4	12.71	116.96	110.60
1	A	2863	G	N1-C6-O6	-12.71	112.27	119.90
1	A	890	G	C4-C5-N7	12.71	115.88	110.80
1	A	1241	A	C5-C6-N6	12.71	133.87	123.70
1	A	990	G	O4'-C1'-N9	12.71	118.36	108.20
1	A	859	C	N3-C4-C5	12.70	126.98	121.90
1	A	445	G	N3-C4-N9	-12.69	118.39	126.00
1	A	642	U	N3-C4-O4	-12.69	110.52	119.40
1	A	906	A	C4-C5-N7	-12.68	104.36	110.70
1	A	2054	G	N9-C4-C5	12.67	110.47	105.40
1	A	2095	U	C5-C4-O4	-12.67	118.30	125.90
1	A	1199	A	N9-C4-C5	12.66	110.86	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2488	C	C5-C4-N4	-12.66	111.34	120.20
1	A	381	G	C4-N9-C1'	12.66	142.96	126.50
1	A	991	A	OP1-P-OP2	-12.66	100.61	119.60
1	A	393	G	N9-C1'-C2'	12.66	130.45	114.00
1	A	262	G	N3-C2-N2	12.65	128.76	119.90
1	A	2487	U	N1-C2-O2	12.65	131.65	122.80
1	A	582	G	N1-C2-N2	-12.65	104.82	116.20
1	A	381	G	N3-C4-N9	12.64	133.59	126.00
31	a	1155	C	C2-N1-C1'	12.64	132.71	118.80
1	A	846	G	C6-C5-N7	12.63	137.98	130.40
1	A	2019	G	C6-C5-N7	12.62	137.97	130.40
1	A	2394	G	C5-C6-O6	12.62	136.17	128.60
1	A	29	U	N1-C2-O2	12.62	131.63	122.80
1	A	2673	C	C5-C4-N4	-12.62	111.37	120.20
1	A	381	G	N3-C4-C5	-12.61	122.29	128.60
1	A	1043	U	C5-C6-N1	-12.61	116.39	122.70
1	A	506	A	N7-C8-N9	12.60	120.10	113.80
1	A	492	G	C8-N9-C4	12.60	111.44	106.40
1	A	1296	C	N1-C2-N3	12.60	128.02	119.20
1	A	89	U	N3-C2-O2	-12.60	113.38	122.20
1	A	1241	A	C4-C5-C6	12.59	123.30	117.00
1	A	2044	C	N3-C4-C5	-12.59	116.86	121.90
1	A	582	G	C8-N9-C4	-12.59	101.36	106.40
1	A	1255	A	N1-C6-N6	12.58	126.15	118.60
1	A	1187	A	N9-C4-C5	12.58	110.83	105.80
1	A	526	A	C5-C6-N1	12.58	123.99	117.70
1	A	1067	U	N3-C4-C5	-12.58	107.05	114.60
1	A	2084	G	C8-N9-C4	-12.58	101.37	106.40
1	A	2471	G	N3-C2-N2	12.57	128.70	119.90
1	A	2295	A	C8-N9-C4	-12.56	100.77	105.80
1	A	70	G	C4-C5-C6	12.56	126.34	118.80
1	A	2081	A	C5-C6-N1	12.56	123.98	117.70
1	A	2546	U	C5-C6-N1	12.56	128.98	122.70
1	A	1032	A	C5-N7-C8	-12.56	97.62	103.90
1	A	1180	G	N3-C4-C5	-12.55	122.32	128.60
1	A	2031	G	C8-N9-C1'	12.55	143.32	127.00
1	A	201	C	C5-C6-N1	12.55	127.28	121.00
1	A	1174	U	C6-N1-C2	12.55	128.53	121.00
1	A	1259	U	N3-C2-O2	-12.54	113.42	122.20
1	A	30	G	N3-C4-N9	-12.53	118.48	126.00
1	A	2454	C	C5-C6-N1	12.53	127.27	121.00
2	B	76	A	C5-C6-N6	-12.53	113.68	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2380	G	C6-C5-N7	-12.53	122.88	130.40
1	A	893	G	N3-C4-N9	12.52	133.51	126.00
1	A	1018	A	N1-C2-N3	12.52	135.56	129.30
1	A	2083	G	C6-C5-N7	-12.52	122.89	130.40
1	A	1234	G	C6-N1-C2	-12.52	117.59	125.10
1	A	1032	A	C8-N9-C4	-12.51	100.80	105.80
1	A	1039	C	C6-N1-C2	-12.51	115.30	120.30
1	A	1073	A	N7-C8-N9	12.51	120.06	113.80
1	A	1032	A	C6-C5-N7	-12.51	123.54	132.30
1	A	1198	G	N1-C2-N3	12.50	131.40	123.90
1	A	1322	G	C6-C5-N7	-12.50	122.90	130.40
1	A	224	A	C8-N9-C4	-12.49	100.80	105.80
1	A	1022	G	C2-N3-C4	12.49	118.14	111.90
1	A	365	A	C8-N9-C4	12.49	110.79	105.80
1	A	548	A	O5'-P-OP1	-12.48	94.46	105.70
1	A	177	G	C6-C5-N7	-12.48	122.91	130.40
1	A	1073	A	N3-C4-C5	-12.48	118.06	126.80
1	A	2550	G	O4'-C1'-N9	12.47	118.18	108.20
1	A	534	G	O5'-P-OP2	-12.47	94.48	105.70
1	A	96	G	C4-C5-N7	12.47	115.79	110.80
1	A	344	U	N3-C2-O2	-12.46	113.47	122.20
31	a	1155	C	N3-C2-O2	-12.46	113.18	121.90
1	A	2860	U	C2-N1-C1'	12.46	132.65	117.70
1	A	242	U	O4'-C1'-N1	12.46	118.17	108.20
1	A	1230	G	C5-C6-O6	-12.46	121.13	128.60
1	A	2046	U	N1-C2-N3	12.46	122.38	114.90
1	A	2646	U	N3-C4-O4	-12.46	110.68	119.40
1	A	2804	G	N1-C6-O6	-12.45	112.43	119.90
1	A	201	C	C4-C5-C6	-12.44	111.18	117.40
1	A	632	U	C2-N3-C4	12.44	134.47	127.00
1	A	18	C	C5-C4-N4	-12.44	111.49	120.20
1	A	903	G	N3-C4-C5	-12.43	122.39	128.60
1	A	350	G	C4-C5-N7	12.42	115.77	110.80
1	A	1225	G	C8-N9-C4	-12.42	101.43	106.40
1	A	2673	C	C2-N3-C4	-12.42	113.69	119.90
1	A	1062	U	N1-C2-O2	12.42	131.49	122.80
1	A	24	G	C4-C5-C6	-12.41	111.35	118.80
1	A	971	U	N3-C2-O2	-12.41	113.51	122.20
1	A	1016	G	N9-C4-C5	12.41	110.36	105.40
1	A	1046	G	O5'-P-OP2	12.40	125.58	110.70
1	A	603	C	C6-N1-C2	-12.40	115.34	120.30
1	A	1301	U	C5-C4-O4	-12.40	118.46	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1700	C	N1-C2-N3	12.39	127.87	119.20
1	A	529	A	C8-N9-C4	-12.39	100.84	105.80
1	A	308	C	N1-C2-O2	12.38	126.33	118.90
1	A	1274	G	N3-C2-N2	12.38	128.57	119.90
1	A	27	G	C6-N1-C2	-12.38	117.67	125.10
1	A	2673	C	C4-C5-C6	-12.38	111.21	117.40
1	A	2094	G	N1-C6-O6	-12.38	112.47	119.90
1	A	2658	G	N3-C4-N9	-12.38	118.57	126.00
1	A	375	A	N3-C4-C5	-12.37	118.14	126.80
1	A	500	A	C4-C5-C6	12.37	123.19	117.00
1	A	548	A	C4-C5-N7	12.37	116.89	110.70
1	A	587	C	C5-C4-N4	12.37	128.86	120.20
1	A	2483	C	N1-C2-O2	12.37	126.32	118.90
1	A	2593	A	C2-N3-C4	12.37	116.79	110.60
1	A	428	G	C4-C5-N7	-12.37	105.85	110.80
1	A	1207	G	C5-C6-O6	-12.37	121.18	128.60
1	A	2019	G	C2-N3-C4	12.36	118.08	111.90
1	A	616	G	N1-C2-N2	12.36	127.32	116.20
1	A	2542	C	C2-N3-C4	12.36	126.08	119.90
1	A	1265	G	C8-N9-C4	-12.36	101.46	106.40
1	A	2595	C	O4'-C1'-N1	12.36	118.09	108.20
1	A	2811	U	N3-C2-O2	-12.36	113.55	122.20
1	A	483	C	C4-C5-C6	12.35	123.58	117.40
1	A	554	C	C4-C5-C6	-12.35	111.22	117.40
1	A	363	A	N1-C6-N6	12.35	126.01	118.60
1	A	846	G	C5-C6-O6	12.35	136.01	128.60
1	A	1046	G	C5-N7-C8	-12.35	98.13	104.30
1	A	2481	G	C6-C5-N7	-12.35	122.99	130.40
1	A	2060	A	O5'-P-OP2	-12.35	94.59	105.70
1	A	622	A	N1-C6-N6	12.34	126.00	118.60
1	A	1194	U	N3-C4-O4	12.34	128.04	119.40
1	A	1065	A	C5-N7-C8	-12.33	97.73	103.90
1	A	1033	G	N3-C4-N9	12.32	133.40	126.00
1	A	910	C	N1-C2-O2	12.32	126.29	118.90
1	A	857	C	OP1-P-OP2	-12.32	101.12	119.60
1	A	2081	A	N9-C4-C5	12.31	110.72	105.80
1	A	177	G	C4-N9-C1'	12.31	142.50	126.50
1	A	864	A	C6-C5-N7	12.31	140.92	132.30
1	A	18	C	C5-C6-N1	12.30	127.15	121.00
1	A	707	G	C5-C6-O6	12.30	135.98	128.60
1	A	1038	C	C6-N1-C2	-12.30	115.38	120.30
1	A	2543	G	C5-N7-C8	-12.30	98.15	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1174	U	C2-N1-C1'	-12.29	102.95	117.70
1	A	1356	G	C8-N9-C4	12.29	111.32	106.40
1	A	598	G	C6-C5-N7	-12.29	123.03	130.40
1	A	2597	G	N1-C2-N3	12.29	131.28	123.90
1	A	237	U	C2-N1-C1'	12.29	132.45	117.70
1	A	905	U	C5-C6-N1	12.29	128.84	122.70
1	A	648	G	C6-C5-N7	-12.28	123.03	130.40
1	A	692	G	C5-N7-C8	-12.28	98.16	104.30
1	A	863	G	N1-C2-N2	-12.28	105.15	116.20
1	A	2461	A	C8-N9-C4	-12.28	100.89	105.80
1	A	1008	C	N3-C4-C5	-12.27	116.99	121.90
1	A	2902	A	N3-C4-C5	-12.27	118.21	126.80
1	A	567	G	C2-N3-C4	12.27	118.03	111.90
1	A	253	G	N3-C2-N2	-12.27	111.31	119.90
1	A	24	G	N9-C4-C5	12.26	110.30	105.40
1	A	471	G	N9-C4-C5	12.26	110.30	105.40
1	A	1234	G	C5-C6-N1	12.26	117.63	111.50
1	A	2046	U	C5-C4-O4	-12.26	118.55	125.90
1	A	119	U	C6-N1-C2	-12.25	113.65	121.00
1	A	480	U	C2-N1-C1'	-12.25	103.00	117.70
1	A	2361	U	N3-C2-O2	-12.25	113.63	122.20
1	A	2284	U	N1-C2-O2	12.23	131.36	122.80
1	A	1018	A	N3-C4-C5	12.23	135.36	126.80
1	A	1301	U	N3-C4-O4	12.22	127.95	119.40
1	A	1305	U	N3-C2-O2	-12.22	113.65	122.20
1	A	873	U	C6-N1-C2	-12.22	113.67	121.00
1	A	993	C	C5-C6-N1	-12.22	114.89	121.00
1	A	97	C	C6-N1-C2	-12.21	115.41	120.30
1	A	1195	A	C4-C5-N7	12.21	116.81	110.70
1	A	2594	G	O4'-C1'-N9	12.21	117.97	108.20
1	A	864	A	N7-C8-N9	12.20	119.90	113.80
1	A	13	A	N3-C4-C5	-12.20	118.26	126.80
1	A	2394	G	C2-N3-C4	-12.19	105.80	111.90
1	A	479	C	N3-C4-C5	12.19	126.78	121.90
1	A	571	A	C6-C5-N7	12.19	140.83	132.30
1	A	2019	G	C5-C6-N1	12.19	117.60	111.50
1	A	1029	C	C2-N1-C1'	12.19	132.21	118.80
1	A	2064	A	C8-N9-C4	-12.19	100.92	105.80
1	A	1005	G	N3-C4-N9	12.18	133.31	126.00
1	A	2887	G	C8-N9-C4	-12.18	101.53	106.40
1	A	2429	U	C5-C6-N1	12.17	128.79	122.70
1	A	294	G	C8-N9-C4	-12.17	101.53	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1356	G	N9-C4-C5	-12.17	100.53	105.40
1	A	419	U	N3-C2-O2	-12.16	113.69	122.20
1	A	1188	A	C6-C5-N7	-12.16	123.79	132.30
1	A	2454	C	N1-C2-N3	12.16	127.71	119.20
1	A	912	C	C4-C5-C6	-12.15	111.33	117.40
1	A	648	G	N7-C8-N9	12.14	119.17	113.10
1	A	2049	U	C5-C6-N1	12.14	128.77	122.70
1	A	2326	G	C6-C5-N7	-12.14	123.12	130.40
1	A	500	A	C8-N9-C4	-12.14	100.94	105.80
1	A	2309	G	C8-N9-C4	-12.13	101.55	106.40
1	A	1032	A	N3-C4-N9	12.13	137.10	127.40
1	A	2481	G	N7-C8-N9	12.13	119.16	113.10
1	A	1027	A	N1-C2-N3	12.12	135.36	129.30
1	A	872	U	O4'-C1'-N1	12.12	117.90	108.20
1	A	1008	C	C5-C6-N1	12.12	127.06	121.00
1	A	2393	A	O5'-P-OP1	-12.11	94.80	105.70
1	A	350	G	C5-C6-O6	-12.10	121.34	128.60
1	A	2845	G	N3-C4-C5	12.10	134.65	128.60
1	A	1233	A	N1-C6-N6	12.09	125.86	118.60
1	A	242	U	N1-C2-N3	12.09	122.15	114.90
1	A	2457	A	C4-N9-C1'	12.09	148.06	126.30
1	A	626	G	C8-N9-C4	-12.08	101.57	106.40
1	A	2064	A	C5-N7-C8	-12.08	97.86	103.90
1	A	125	A	C8-N9-C4	-12.08	100.97	105.80
1	A	2567	C	C6-N1-C2	-12.08	115.47	120.30
1	A	27	G	C2-N3-C4	12.07	117.94	111.90
1	A	24	G	C6-C5-N7	12.07	137.64	130.40
1	A	630	G	C8-N9-C4	-12.06	101.58	106.40
1	A	1697	G	C8-N9-C4	12.06	111.22	106.40
1	A	2477	A	C2-N3-C4	-12.06	104.57	110.60
1	A	1034	A	C6-C5-N7	12.05	140.74	132.30
1	A	994	A	N1-C6-N6	12.05	125.83	118.60
1	A	1804	U	N1-C2-O2	12.05	131.24	122.80
1	A	1025	A	C8-N9-C4	12.05	110.62	105.80
1	A	265	A	C4-C5-C6	-12.05	110.98	117.00
1	A	633	A	C5-C6-N6	12.05	133.34	123.70
1	A	1259	U	O5'-P-OP2	-12.04	94.87	105.70
1	A	265	A	C6-C5-N7	12.03	140.72	132.30
1	A	1197	C	C6-N1-C1'	-12.03	106.36	120.80
1	A	1176	U	N3-C2-O2	-12.03	113.78	122.20
1	A	956	A	O5'-P-OP1	-12.02	94.88	105.70
1	A	2368	G	N9-C4-C5	12.02	110.21	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1006	G	N7-C8-N9	12.02	119.11	113.10
1	A	1039	C	C5-C6-N1	12.02	127.01	121.00
1	A	533	C	C5-C4-N4	12.02	128.61	120.20
1	A	2054	G	N3-C4-C5	12.02	134.61	128.60
1	A	373	A	C4-C5-C6	12.01	123.01	117.00
1	A	1032	A	N7-C8-N9	12.01	119.81	113.80
1	A	2320	C	C6-N1-C2	-12.01	115.50	120.30
1	A	587	C	C6-N1-C1'	12.01	135.21	120.80
1	A	957	C	N1-C2-N3	12.00	127.60	119.20
1	A	2701	G	C6-C5-N7	12.00	137.60	130.40
1	A	890	G	C6-C5-N7	-12.00	123.20	130.40
1	A	2444	C	N1-C2-O2	11.99	126.09	118.90
1	A	150	A	N1-C6-N6	-11.98	111.41	118.60
1	A	997	G	N9-C4-C5	-11.98	100.61	105.40
1	A	2653	C	C2-N1-C1'	11.98	131.98	118.80
1	A	70	G	N3-C4-C5	-11.98	122.61	128.60
1	A	2460	A	N9-C4-C5	-11.97	101.01	105.80
1	A	1228	A	C5-C6-N6	-11.97	114.13	123.70
1	A	1274	G	O4'-C1'-N9	11.97	117.77	108.20
1	A	1185	U	C5-C6-N1	11.97	128.68	122.70
1	A	2434	A	N7-C8-N9	11.97	119.78	113.80
1	A	582	G	C2-N3-C4	11.96	117.88	111.90
1	A	428	G	C8-N9-C4	-11.96	101.61	106.40
1	A	1363	U	C6-N1-C2	11.96	128.17	121.00
1	A	477	U	O5'-P-OP1	-11.95	94.94	105.70
1	A	495	A	C8-N9-C4	11.95	110.58	105.80
1	A	1234	G	N3-C4-N9	11.95	133.17	126.00
1	A	2646	U	C2-N3-C4	-11.95	119.83	127.00
1	A	1202	C	C6-N1-C2	-11.95	115.52	120.30
1	A	1260	C	C2-N3-C4	-11.95	113.93	119.90
1	A	1028	G	C8-N9-C4	-11.94	101.62	106.40
1	A	2570	G	C8-N9-C4	-11.94	101.62	106.40
1	A	1180	G	C4-N9-C1'	11.94	142.02	126.50
1	A	1360	G	C5-C6-N1	11.94	117.47	111.50
1	A	224	A	N7-C8-N9	11.93	119.77	113.80
1	A	567	G	C5-C6-N1	11.93	117.47	111.50
1	A	483	C	N3-C2-O2	-11.93	113.55	121.90
1	A	344	U	C2-N1-C1'	-11.93	103.39	117.70
1	A	428	G	N1-C2-N2	11.93	126.94	116.20
1	A	2049	U	N3-C2-O2	-11.92	113.86	122.20
1	A	2812	U	O5'-P-OP1	11.92	125.00	110.70
1	A	496	G	C6-C5-N7	-11.91	123.25	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1020	G	C5-N7-C8	-11.91	98.34	104.30
1	A	1175	G	C6-C5-N7	-11.91	123.25	130.40
1	A	632	U	O5'-P-OP1	-11.90	94.99	105.70
1	A	1198	G	N1-C2-N2	-11.90	105.49	116.20
1	A	1185	U	OP1-P-OP2	-11.90	101.76	119.60
1	A	527	G	C4-C5-N7	11.89	115.56	110.80
1	A	2454	C	C5-C4-N4	11.89	128.53	120.20
1	A	2868	G	C6-C5-N7	-11.89	123.27	130.40
1	A	210	A	C5-C6-N1	11.89	123.64	117.70
1	A	1363	U	N1-C2-N3	-11.89	107.77	114.90
1	A	1816	A	C8-N9-C4	-11.88	101.05	105.80
1	A	2473	G	O5'-P-OP1	-11.88	95.00	105.70
1	A	373	A	C8-N9-C4	-11.88	101.05	105.80
1	A	561	C	C6-N1-C1'	-11.88	106.54	120.80
1	A	902	A	N1-C6-N6	-11.88	111.47	118.60
1	A	893	G	C2-N3-C4	11.87	117.83	111.90
1	A	2460	A	C6-C5-N7	-11.87	123.99	132.30
1	A	541	G	N1-C2-N2	11.87	126.88	116.20
1	A	1297	G	N3-C2-N2	11.86	128.20	119.90
1	A	2027	G	N3-C4-N9	-11.86	118.88	126.00
1	A	872	U	C2-N1-C1'	11.86	131.93	117.70
1	A	1228	A	O4'-C1'-N9	11.86	117.68	108.20
1	A	1056	U	N3-C4-O4	11.85	127.69	119.40
1	A	69	C	N3-C2-O2	-11.84	113.61	121.90
1	A	428	G	N3-C4-N9	-11.84	118.90	126.00
1	A	912	C	N3-C4-N4	11.84	126.28	118.00
1	A	1182	G	C5-C6-O6	-11.84	121.50	128.60
1	A	1235	C	C6-N1-C2	-11.84	115.57	120.30
1	A	2361	U	C2-N1-C1'	11.83	131.90	117.70
1	A	2542	C	C6-N1-C1'	-11.83	106.60	120.80
1	A	2094	G	C8-N9-C1'	-11.83	111.63	127.00
1	A	419	U	C6-N1-C2	-11.81	113.91	121.00
1	A	630	G	N3-C4-N9	-11.81	118.91	126.00
1	A	1289	A	P-O3'-C3'	11.81	133.87	119.70
1	A	649	U	N1-C2-N3	-11.79	107.82	114.90
1	A	1235	C	C6-N1-C1'	-11.80	106.64	120.80
1	A	14	A	C4-C5-N7	11.79	116.59	110.70
1	A	991	A	C2-N3-C4	11.79	116.49	110.60
1	A	1066	G	C6-N1-C2	-11.78	118.03	125.10
1	A	1066	G	N1-C6-O6	-11.78	112.83	119.90
1	A	1023	A	C5-C6-N1	11.78	123.59	117.70
1	A	1225	G	N9-C4-C5	11.78	110.11	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1254	C	C5-C6-N1	11.77	126.89	121.00
1	A	1015	C	N3-C4-C5	11.77	126.61	121.90
1	A	2655	U	C6-N1-C2	-11.76	113.94	121.00
1	A	2481	G	P-O3'-C3'	11.76	133.81	119.70
1	A	643	G	C5-C6-N1	-11.75	105.62	111.50
1	A	625	G	C6-N1-C2	-11.75	118.05	125.10
1	A	598	G	C5-N7-C8	-11.75	98.43	104.30
1	A	1068	G	N9-C4-C5	11.75	110.10	105.40
1	A	24	G	C5-C6-N1	11.74	117.37	111.50
1	A	990	G	N9-C1'-C2'	-11.74	98.74	114.00
1	A	1261	G	O5'-P-OP1	-11.74	95.14	105.70
1	A	2094	G	N3-C2-N2	11.74	128.12	119.90
1	A	332	A	C8-N9-C4	11.73	110.49	105.80
1	A	1288	G	C5-C6-N1	11.73	117.37	111.50
1	A	1046	G	C8-N9-C1'	-11.73	111.75	127.00
1	A	616	G	C5-C6-O6	11.73	135.64	128.60
1	A	612	U	C4-C5-C6	-11.72	112.67	119.70
1	A	905	U	OP2-P-O3'	11.72	130.98	105.20
1	A	1061	G	N1-C6-O6	-11.72	112.87	119.90
1	A	74	U	N3-C2-O2	-11.71	114.01	122.20
1	A	910	C	C6-N1-C2	11.70	124.98	120.30
1	A	624	C	N3-C4-N4	-11.69	109.81	118.00
1	A	1368	C	C4-C5-C6	11.69	123.25	117.40
1	A	1026	C	C5-C6-N1	11.69	126.84	121.00
1	A	393	G	O4'-C1'-N9	11.68	117.54	108.20
1	A	558	A	O5'-P-OP1	11.68	124.71	110.70
1	A	533	C	N1-C2-O2	11.66	125.90	118.90
1	A	2094	G	O4'-C1'-N9	11.66	117.53	108.20
1	A	668	C	N3-C4-C5	11.66	126.56	121.90
1	A	2083	G	N3-C4-N9	11.66	133.00	126.00
1	A	70	G	C4-N9-C1'	11.66	141.66	126.50
1	A	70	G	C8-N9-C1'	-11.66	111.85	127.00
1	A	538	G	C5-C6-O6	11.66	135.59	128.60
1	A	1066	G	C4-C5-C6	11.66	125.79	118.80
1	A	625	G	N1-C2-N3	11.65	130.89	123.90
1	A	1287	U	N1-C2-O2	11.65	130.96	122.80
1	A	2368	G	C8-N9-C4	-11.65	101.74	106.40
1	A	1015	C	C2-N3-C4	-11.65	114.07	119.90
1	A	2486	A	N3-C4-N9	11.65	136.72	127.40
1	A	496	G	C5-N7-C8	-11.65	98.48	104.30
1	A	1230	G	C4-C5-C6	11.64	125.78	118.80
1	A	600	U	N3-C4-O4	11.64	127.55	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1022	G	O5'-P-OP2	11.63	124.66	110.70
1	A	2658	G	N9-C4-C5	11.63	110.05	105.40
1	A	2801	C	N3-C2-O2	-11.63	113.76	121.90
1	A	2657	G	C8-N9-C4	-11.63	101.75	106.40
1	A	2023	C	N1-C1'-C2'	11.62	129.11	114.00
1	A	1289	A	N9-C1'-C2'	11.62	129.11	114.00
1	A	857	C	N3-C2-O2	-11.62	113.77	121.90
1	A	700	A	O4'-C1'-N9	11.62	117.49	108.20
1	A	471	G	N1-C6-O6	-11.61	112.94	119.90
1	A	519	G	N7-C8-N9	11.61	118.90	113.10
1	A	948	U	C6-N1-C2	-11.61	114.04	121.00
1	A	1026	C	C6-N1-C2	-11.61	115.66	120.30
1	A	480	U	C6-N1-C1'	11.60	137.44	121.20
1	A	2037	G	N1-C2-N2	-11.60	105.76	116.20
1	A	506	A	C8-N9-C4	-11.59	101.16	105.80
1	A	526	A	C8-N9-C1'	-11.59	106.83	127.70
1	A	1013	U	N3-C4-O4	11.59	127.51	119.40
1	A	393	G	C4-C5-N7	-11.59	106.17	110.80
1	A	906	A	OP1-P-OP2	-11.59	102.22	119.60
1	A	1289	A	C5-N7-C8	-11.59	98.11	103.90
1	A	1295	C	C5-C4-N4	11.59	128.31	120.20
1	A	2856	U	N3-C4-O4	-11.59	111.29	119.40
1	A	1055	A	O5'-P-OP2	-11.57	95.28	105.70
1	A	47	C	N1-C2-O2	11.57	125.84	118.90
1	A	2704	A	N7-C8-N9	11.57	119.58	113.80
1	A	2083	G	N1-C2-N3	11.57	130.84	123.90
1	A	2528	C	C6-N1-C2	-11.57	115.67	120.30
31	a	745	U	OP1-P-O3'	-11.56	79.76	105.20
1	A	2043	U	C6-N1-C2	-11.55	114.07	121.00
1	A	1010	G	C8-N9-C4	-11.55	101.78	106.40
1	A	2594	G	N3-C4-C5	-11.55	122.83	128.60
1	A	2011	U	N3-C2-O2	-11.55	114.12	122.20
1	A	2037	G	C4-N9-C1'	11.54	141.51	126.50
1	A	1200	A	C8-N9-C4	11.54	110.42	105.80
1	A	2391	C	C6-N1-C2	-11.54	115.68	120.30
1	A	534	G	C8-N9-C4	-11.54	101.78	106.40
1	A	2516	G	O4'-C1'-N9	11.54	117.43	108.20
1	A	2523	C	O5'-P-OP1	-11.53	95.32	105.70
1	A	1235	C	N3-C4-N4	11.53	126.07	118.00
1	A	1297	G	N3-C4-C5	-11.53	122.84	128.60
1	A	1700	C	C4-C5-C6	11.53	123.16	117.40
1	A	2509	A	C8-N9-C4	-11.52	101.19	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	150	A	C2-N3-C4	11.52	116.36	110.60
1	A	1001	A	C5-N7-C8	-11.51	98.14	103.90
1	A	1198	G	C6-C5-N7	-11.51	123.49	130.40
1	A	2593	A	N3-C4-C5	-11.51	118.74	126.80
1	A	366	G	N9-C1'-C2'	11.50	128.96	114.00
1	A	1301	U	C5-C6-N1	11.50	128.45	122.70
1	A	874	A	N7-C8-N9	11.49	119.55	113.80
1	A	1034	A	OP1-P-O3'	11.49	130.49	105.20
1	A	2019	G	C5-C6-O6	11.49	135.49	128.60
1	A	2577	G	N1-C6-O6	11.49	126.79	119.90
1	A	1003	A	O5'-P-OP2	-11.48	95.36	105.70
1	A	1073	A	C4-C5-C6	11.48	122.74	117.00
1	A	2044	C	C6-N1-C1'	-11.48	107.02	120.80
1	A	2667	G	N3-C4-N9	-11.48	119.11	126.00
1	A	595	G	N3-C4-C5	-11.48	122.86	128.60
1	A	667	G	C5'-C4'-O4'	11.47	122.87	109.10
1	A	366	G	C4-N9-C1'	11.47	141.41	126.50
1	A	1230	G	C8-N9-C1'	-11.47	112.09	127.00
1	A	1263	A	C2-N3-C4	-11.47	104.86	110.60
1	A	1200	A	N3-C4-C5	11.47	134.83	126.80
1	A	2309	G	C5-C6-O6	11.46	135.48	128.60
1	A	669	C	O5'-P-OP2	-11.46	95.39	105.70
1	A	974	U	N3-C2-O2	-11.46	114.18	122.20
1	A	650	U	OP1-P-OP2	-11.45	102.42	119.60
1	A	1068	G	C8-N9-C4	-11.45	101.82	106.40
1	A	2076	A	N1-C6-N6	-11.45	111.73	118.60
1	A	562	C	N1-C2-O2	11.45	125.77	118.90
1	A	1011	U	C2-N3-C4	11.44	133.87	127.00
1	A	1200	A	N1-C2-N3	-11.44	123.58	129.30
1	A	1817	C	C6-N1-C2	-11.45	115.72	120.30
1	A	572	C	N3-C2-O2	-11.44	113.89	121.90
1	A	376	A	C5-C6-N1	11.44	123.42	117.70
1	A	2471	G	N3-C4-C5	11.44	134.32	128.60
1	A	424	C	N3-C4-N4	-11.44	109.99	118.00
1	A	1175	G	N1-C6-O6	11.44	126.76	119.90
1	A	1197	C	C4-C5-C6	-11.44	111.68	117.40
1	A	2380	G	C5-C6-N1	-11.44	105.78	111.50
1	A	2478	A	C5-C6-N6	11.44	132.85	123.70
1	A	375	A	C5-C6-N1	11.43	123.42	117.70
1	A	426	G	C4-C5-C6	-11.43	111.94	118.80
1	A	1044	A	C6-N1-C2	-11.43	111.74	118.60
1	A	2056	G	C8-N9-C1'	-11.43	112.14	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	620	G	C4-N9-C1'	-11.43	111.64	126.50
1	A	2644	C	C6-N1-C2	-11.42	115.73	120.30
1	A	2668	A	OP2-P-O3'	11.42	130.33	105.20
1	A	95	A	N9-C4-C5	-11.42	101.23	105.80
1	A	1047	G	C8-N9-C1'	-11.41	112.16	127.00
1	A	2457	A	N3-C4-N9	11.41	136.53	127.40
1	A	194	A	C6-C5-N7	11.41	140.29	132.30
1	A	1231	A	N1-C2-N3	-11.41	123.60	129.30
1	A	2390	U	N1-C2-O2	11.40	130.78	122.80
1	A	1394	U	N3-C2-O2	-11.40	114.22	122.20
1	A	2668	A	C4-N9-C1'	11.40	146.82	126.30
1	A	571	A	C5-C6-N1	11.39	123.40	117.70
1	A	1801	C	N3-C2-O2	-11.39	113.92	121.90
1	A	632	U	C6-N1-C1'	11.39	137.15	121.20
1	A	633	A	C4-N9-C1'	11.39	146.80	126.30
1	A	2482	G	C8-N9-C4	-11.39	101.84	106.40
1	A	2489	U	N3-C2-O2	-11.39	114.23	122.20
1	A	1228	A	C2-N3-C4	-11.38	104.91	110.60
1	A	2645	G	C5-C6-O6	-11.38	121.77	128.60
1	A	223	G	N3-C4-C5	-11.38	122.91	128.60
1	A	1011	U	C5-C4-O4	-11.38	119.08	125.90
1	A	360	A	C4-C5-N7	-11.37	105.02	110.70
1	A	575	G	C6-C5-N7	-11.37	123.58	130.40
1	A	1277	C	C6-N1-C2	-11.37	115.75	120.30
1	A	498	G	O5'-P-OP1	-11.37	95.47	105.70
1	A	1065	A	C4-C5-N7	11.36	116.38	110.70
1	A	1022	G	C5-C6-N1	11.36	117.18	111.50
1	A	2704	A	N3-C4-C5	-11.36	118.85	126.80
1	A	1014	U	N1-C1'-C2'	11.36	128.77	114.00
1	A	575	G	C4-C5-N7	11.35	115.34	110.80
1	A	2275	C	C2-N1-C1'	-11.35	106.31	118.80
1	A	1054	A	C5-N7-C8	-11.35	98.22	103.90
1	A	1308	C	N3-C4-N4	-11.35	110.06	118.00
1	A	2480	A	N9-C4-C5	-11.34	101.26	105.80
1	A	198	A	N9-C4-C5	11.34	110.34	105.80
1	A	625	G	C4-C5-N7	-11.34	106.26	110.80
1	A	1000	G	N3-C2-N2	11.34	127.84	119.90
1	A	1015	C	OP1-P-O3'	11.34	130.14	105.20
1	A	1700	C	C5-C4-N4	11.34	128.14	120.20
1	A	622	A	C6-C5-N7	-11.34	124.36	132.30
2	B	87	C	C2-N1-C1'	11.34	131.27	118.80
1	A	1262	U	N1-C2-N3	11.33	121.70	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2645	G	N3-C2-N2	11.32	127.83	119.90
1	A	612	U	N1-C2-O2	11.32	130.72	122.80
1	A	1028	G	P-O3'-C3'	11.32	133.28	119.70
1	A	96	G	C6-C5-N7	-11.31	123.61	130.40
1	A	642	U	C5-C6-N1	-11.31	117.05	122.70
1	A	2516	G	C4-C5-N7	11.31	115.32	110.80
1	A	68	A	C2-N3-C4	-11.31	104.95	110.60
1	A	2037	G	C6-N1-C2	-11.31	118.32	125.10
1	A	959	C	C5-C4-N4	-11.30	112.29	120.20
2	B	85	U	N1-C2-N3	11.30	121.68	114.90
1	A	1980	A	C2-N3-C4	-11.30	104.95	110.60
1	A	997	G	N3-C4-N9	11.30	132.78	126.00
1	A	1288	G	C2-N3-C4	11.30	117.55	111.90
1	A	18	C	C4-C5-C6	-11.29	111.75	117.40
1	A	2528	C	N1-C2-N3	11.29	127.11	119.20
1	A	2060	A	N3-C4-C5	-11.29	118.90	126.80
1	A	1000	G	C4-N9-C1'	11.29	141.17	126.50
1	A	2065	G	N3-C2-N2	11.29	127.80	119.90
1	A	267	G	C6-C5-N7	-11.29	123.63	130.40
1	A	1288	G	C6-C5-N7	-11.28	123.63	130.40
1	A	368	A	C4-N9-C1'	11.28	146.61	126.30
1	A	428	G	C8-N9-C1'	11.28	141.66	127.00
1	A	2031	G	C5-C6-N1	11.28	117.14	111.50
1	A	393	G	C2-N3-C4	11.28	117.54	111.90
1	A	997	G	C4-C5-N7	11.27	115.31	110.80
1	A	2685	C	C5-C6-N1	11.27	126.63	121.00
1	A	2758	G	N1-C2-N3	11.27	130.66	123.90
1	A	523	A	C8-N9-C4	11.27	110.31	105.80
1	A	2064	A	C4-C5-C6	-11.27	111.37	117.00
1	A	442	G	N3-C4-N9	-11.26	119.25	126.00
1	A	2058	A	N7-C8-N9	11.25	119.43	113.80
1	A	378	C	C2-N1-C1'	11.25	131.18	118.80
1	A	626	G	N1-C2-N3	11.25	130.65	123.90
1	A	858	U	O4'-C1'-N1	11.25	117.20	108.20
1	A	873	U	C5-C6-N1	11.24	128.32	122.70
1	A	2397	G	C4-N9-C1'	-11.24	111.89	126.50
1	A	629	A	N9-C4-C5	11.23	110.29	105.80
1	A	1056	U	O5'-P-OP1	11.23	124.17	110.70
1	A	909	G	N1-C2-N2	-11.22	106.10	116.20
1	A	14	A	C5-N7-C8	-11.22	98.29	103.90
1	A	1043	U	C2-N3-C4	-11.22	120.27	127.00
1	A	958	U	N3-C2-O2	-11.22	114.34	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	476	A	N1-C6-N6	-11.22	111.87	118.60
1	A	1024	A	C2-N3-C4	11.22	116.21	110.60
1	A	1697	G	N9-C4-C5	-11.22	100.91	105.40
1	A	1004	A	N3-C4-N9	-11.22	118.42	127.40
1	A	1374	G	N1-C2-N2	-11.22	106.10	116.20
1	A	2081	A	C2-N3-C4	11.22	116.21	110.60
1	A	2480	A	O4'-C1'-N9	11.22	117.17	108.20
1	A	1806	U	C5-C6-N1	-11.21	117.09	122.70
1	A	377	U	N3-C2-O2	11.21	130.04	122.20
1	A	903	G	C2-N3-C4	11.21	117.50	111.90
1	A	1274	G	C5-C6-N1	11.20	117.10	111.50
1	A	2028	A	N1-C2-N3	-11.20	123.70	129.30
1	A	2047	A	N9-C4-C5	-11.20	101.32	105.80
1	A	1700	C	C2-N1-C1'	11.20	131.12	118.80
1	A	2054	G	C8-N9-C4	-11.20	101.92	106.40
1	A	2249	G	C4-C5-N7	11.20	115.28	110.80
1	A	1016	G	C2-N3-C4	11.20	117.50	111.90
1	A	1179	C	N1-C2-O2	11.19	125.61	118.90
1	A	2284	U	C2-N1-C1'	11.19	131.13	117.70
1	A	2667	G	N1-C2-N3	11.19	130.61	123.90
1	A	503	A	C2-N3-C4	-11.18	105.01	110.60
1	A	644	C	C6-N1-C1'	11.18	134.22	120.80
1	A	714	G	C4-N9-C1'	11.18	141.03	126.50
1	A	954	A	C6-C5-N7	-11.18	124.47	132.30
1	A	1236	G	C2-N3-C4	-11.18	106.31	111.90
1	A	366	G	C4-C5-N7	11.18	115.27	110.80
1	A	416	G	N9-C4-C5	11.18	109.87	105.40
1	A	1322	G	N3-C4-N9	11.18	132.71	126.00
1	A	2488	C	N3-C2-O2	-11.17	114.08	121.90
1	A	28	A	C4-C5-C6	-11.17	111.42	117.00
1	A	1046	G	C8-N9-C4	-11.17	101.93	106.40
1	A	193	A	C5-C6-N1	11.16	123.28	117.70
1	A	629	A	N3-C4-N9	-11.16	118.47	127.40
1	A	583	A	C4-C5-C6	-11.16	111.42	117.00
1	A	2759	G	C8-N9-C4	-11.16	101.94	106.40
1	A	70	G	N3-C4-N9	11.15	132.69	126.00
1	A	1201	G	C2-N3-C4	-11.15	106.32	111.90
1	A	1207	G	C2-N3-C4	-11.15	106.32	111.90
1	A	868	A	C6-C5-N7	-11.15	124.50	132.30
1	A	2473	G	O4'-C1'-N9	11.14	117.12	108.20
1	A	487	U	N1-C2-O2	11.14	130.60	122.80
1	A	1225	G	N1-C6-O6	-11.13	113.22	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1601	U	N1-C2-O2	11.13	130.59	122.80
1	A	1026	C	N3-C4-C5	-11.13	117.45	121.90
1	A	1230	G	N7-C8-N9	11.13	118.66	113.10
1	A	2702	A	C2-N3-C4	-11.13	105.04	110.60
1	A	2868	G	C4-C5-N7	11.13	115.25	110.80
1	A	530	C	C2-N1-C1'	11.12	131.04	118.80
1	A	857	C	C2-N1-C1'	11.12	131.04	118.80
1	A	426	G	N1-C6-O6	-11.12	113.23	119.90
1	A	2090	C	C5-C6-N1	11.11	126.56	121.00
1	A	1023	A	C8-N9-C4	-11.11	101.36	105.80
1	A	375	A	C6-N1-C2	-11.10	111.94	118.60
1	A	538	G	N1-C6-O6	-11.10	113.24	119.90
1	A	1260	C	O5'-P-OP1	-11.10	95.71	105.70
1	A	2043	U	C4-C5-C6	-11.10	113.04	119.70
1	A	644	C	N3-C2-O2	-11.10	114.13	121.90
1	A	1031	C	N1-C2-N3	11.09	126.96	119.20
1	A	2083	G	C8-N9-C4	-11.09	101.96	106.40
1	A	998	G	N1-C6-O6	-11.09	113.25	119.90
1	A	1064	A	N1-C6-N6	-11.09	111.95	118.60
1	A	1601	U	N3-C2-O2	-11.09	114.44	122.20
1	A	2095	U	C2-N3-C4	-11.09	120.35	127.00
1	A	2457	A	C6-N1-C2	-11.09	111.95	118.60
1	A	1234	G	N1-C6-O6	-11.08	113.25	119.90
1	A	599	A	N3-C4-C5	-11.08	119.04	126.80
1	A	835	U	C2-N1-C1'	11.08	130.99	117.70
1	A	1180	G	C8-N9-C1'	-11.08	112.60	127.00
1	A	1181	G	N9-C4-C5	-11.08	100.97	105.40
1	A	1269	A	N1-C6-N6	11.08	125.25	118.60
1	A	2418	G	C8-N9-C4	-11.08	101.97	106.40
1	A	2869	G	N9-C4-C5	-11.08	100.97	105.40
1	A	2800	U	N1-C2-O2	11.07	130.55	122.80
1	A	46	C	C5-C6-N1	11.07	126.53	121.00
1	A	2662	U	C5-C6-N1	-11.06	117.17	122.70
1	A	2646	U	N3-C2-O2	-11.06	114.46	122.20
1	A	1029	C	C5-C6-N1	11.06	126.53	121.00
1	A	24	G	N1-C2-N2	11.05	126.15	116.20
1	A	1033	G	C6-N1-C2	-11.05	118.47	125.10
1	A	2568	A	OP1-P-O3'	-11.05	80.88	105.20
1	A	900	G	C5-C6-O6	11.05	135.23	128.60
1	A	1374	G	N3-C2-N2	11.05	127.64	119.90
1	A	1185	U	N3-C2-O2	-11.05	114.47	122.20
1	A	177	G	N1-C6-O6	11.04	126.53	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1205	U	N1-C2-O2	11.04	130.53	122.80
1	A	2596	G	N9-C4-C5	11.04	109.82	105.40
1	A	1230	G	N3-C4-N9	11.04	132.62	126.00
1	A	2569	A	C8-N9-C4	-11.04	101.39	105.80
1	A	1351	C	C5-C6-N1	11.03	126.52	121.00
1	A	1031	C	O4'-C1'-N1	11.02	117.02	108.20
1	A	1283	G	C5-C6-N1	11.02	117.01	111.50
1	A	198	A	C5-C6-N6	11.02	132.52	123.70
1	A	1199	A	N3-C4-C5	-11.01	119.09	126.80
1	A	519	G	C5-C6-O6	11.01	135.21	128.60
1	A	620	G	N3-C4-N9	-11.01	119.39	126.00
1	A	2029	G	N3-C2-N2	-11.01	112.20	119.90
1	A	620	G	C8-N9-C1'	11.00	141.30	127.00
1	A	487	U	N3-C2-O2	-11.00	114.50	122.20
1	A	2482	G	N3-C2-N2	-11.00	112.20	119.90
1	A	267	G	N9-C4-C5	-10.99	101.00	105.40
1	A	2392	G	N1-C6-O6	10.99	126.50	119.90
1	A	948	U	N3-C2-O2	-10.99	114.51	122.20
1	A	2083	G	C8-N9-C1'	-10.99	112.72	127.00
1	A	344	U	N3-C4-O4	-10.98	111.71	119.40
1	A	2668	A	C2-N3-C4	10.98	116.09	110.60
1	A	1321	A	C5-C6-N1	10.97	123.19	117.70
1	A	491	C	N1-C2-O2	10.97	125.48	118.90
1	A	990	G	O5'-P-OP1	10.97	123.86	110.70
1	A	2076	A	C6-N1-C2	-10.97	112.02	118.60
1	A	1178	C	C6-N1-C2	10.97	124.69	120.30
1	A	1234	G	N9-C4-C5	10.97	109.79	105.40
1	A	2483	C	C2-N1-C1'	10.96	130.86	118.80
1	A	1252	A	O5'-P-OP1	-10.96	95.84	105.70
1	A	1269	A	C5-C6-N6	-10.96	114.94	123.70
1	A	265	A	N9-C4-C5	10.94	110.18	105.80
1	A	957	C	N1-C2-O2	10.94	125.47	118.90
1	A	1199	A	C2-N3-C4	10.94	116.07	110.60
1	A	474	A	N7-C8-N9	10.94	119.27	113.80
1	A	994	A	N7-C8-N9	-10.94	108.33	113.80
1	A	2643	C	C2-N1-C1'	10.94	130.83	118.80
1	A	2759	G	C5-C6-O6	10.94	135.16	128.60
1	A	2078	A	N3-C4-C5	-10.93	119.15	126.80
1	A	600	U	C5-C4-O4	-10.93	119.34	125.90
1	A	1260	C	N3-C4-N4	-10.93	110.35	118.00
1	A	905	U	N3-C2-O2	-10.93	114.55	122.20
1	A	1290	G	C5-C6-N1	10.93	116.96	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2368	G	C2-N3-C4	-10.93	106.44	111.90
1	A	2527	U	N3-C4-O4	10.93	127.05	119.40
1	A	620	G	N1-C2-N2	10.92	126.03	116.20
1	A	582	G	C5-C6-N1	10.92	116.96	111.50
1	A	1654	A	C5-N7-C8	-10.92	98.44	103.90
1	A	2482	G	C5-C6-O6	10.92	135.15	128.60
1	A	488	G	N7-C8-N9	10.91	118.56	113.10
1	A	1854	U	N3-C2-O2	-10.91	114.56	122.20
1	A	26	G	O5'-P-OP1	-10.91	95.88	105.70
1	A	519	G	N3-C2-N2	-10.91	112.26	119.90
1	A	622	A	C5-N7-C8	-10.91	98.45	103.90
1	A	631	U	O5'-P-OP1	-10.91	95.88	105.70
1	A	1014	U	C6-N1-C1'	-10.90	105.93	121.20
1	A	2740	A	C4-C5-N7	10.90	116.15	110.70
1	A	201	C	C2-N1-C1'	10.90	130.79	118.80
1	A	2060	A	N9-C4-C5	10.90	110.16	105.80
1	A	2326	G	N1-C6-O6	10.90	126.44	119.90
1	A	2675	G	C5-C6-N1	10.90	116.95	111.50
1	A	36	G	N1-C6-O6	10.88	126.43	119.90
1	A	583	A	C6-C5-N7	10.89	139.92	132.30
1	A	1035	C	O4'-C1'-N1	10.88	116.91	108.20
1	A	2396	A	C4-N9-C1'	10.88	145.89	126.30
1	A	2045	A	C5-C6-N1	10.88	123.14	117.70
1	A	1066	G	C4-N9-C1'	10.88	140.64	126.50
1	A	1241	A	N9-C4-C5	10.88	110.15	105.80
1	A	444	C	C6-N1-C2	-10.87	115.95	120.30
1	A	621	A	C5-C6-N6	10.87	132.40	123.70
1	A	425	G	C6-C5-N7	10.87	136.92	130.40
1	A	2701	G	N9-C4-C5	10.87	109.75	105.40
2	B	76	A	C4-C5-C6	10.87	122.43	117.00
1	A	565	G	N3-C4-N9	-10.87	119.48	126.00
1	A	500	A	C6-C5-N7	-10.86	124.70	132.30
1	A	1360	G	N3-C4-C5	-10.86	123.17	128.60
1	A	714	G	C8-N9-C1'	-10.86	112.89	127.00
1	A	1184	C	C6-N1-C2	-10.86	115.96	120.30
1	A	377	U	C6-N1-C2	-10.86	114.49	121.00
1	A	612	U	N3-C2-O2	-10.86	114.60	122.20
1	A	1186	A	C4-C5-C6	10.85	122.43	117.00
1	A	488	G	N3-C4-N9	-10.85	119.49	126.00
1	A	1017	A	N1-C2-N3	-10.85	123.88	129.30
1	A	1006	G	C4-C5-N7	10.84	115.14	110.80
1	A	1002	U	O4'-C1'-N1	10.84	116.87	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2597	G	N3-C4-N9	10.84	132.50	126.00
1	A	598	G	N7-C8-N9	10.84	118.52	113.10
1	A	1202	C	C5-C6-N1	10.84	126.42	121.00
1	A	13	A	C5-C6-N1	10.83	123.11	117.70
1	A	37	C	N3-C2-O2	-10.82	114.33	121.90
1	A	953	C	C6-N1-C2	-10.82	115.97	120.30
1	A	177	G	N3-C4-N9	10.82	132.49	126.00
1	A	267	G	C8-N9-C1'	-10.82	112.94	127.00
1	A	442	G	N3-C2-N2	-10.81	112.33	119.90
1	A	1804	U	C5-C4-O4	10.81	132.39	125.90
1	A	2477	A	N1-C2-N3	10.81	134.71	129.30
1	A	1011	U	N1-C2-N3	-10.81	108.41	114.90
1	A	2083	G	C6-N1-C2	-10.81	118.62	125.10
1	A	480	U	N3-C2-O2	-10.80	114.64	122.20
1	A	529	A	N7-C8-N9	10.80	119.20	113.80
1	A	873	U	O5'-P-OP1	-10.81	95.97	105.70
1	A	1255	A	C5-C6-N6	-10.81	115.06	123.70
1	A	563	G	C8-N9-C4	10.80	110.72	106.40
1	A	530	C	C2-N3-C4	10.79	125.30	119.90
1	A	1251	A	O5'-P-OP2	-10.79	95.98	105.70
1	A	1290	G	C2-N3-C4	10.80	117.30	111.90
1	A	2869	G	C4-C5-N7	10.80	115.12	110.80
1	A	2802	A	N7-C8-N9	10.79	119.20	113.80
1	A	1028	G	OP1-P-O3'	-10.79	81.47	105.20
1	A	2898	U	N3-C4-O4	10.79	126.95	119.40
1	A	1072	A	N3-C4-C5	-10.79	119.25	126.80
1	A	352	A	C2-N3-C4	10.78	115.99	110.60
1	A	608	C	O5'-P-OP2	-10.78	96.00	105.70
1	A	2369	C	C6-N1-C2	-10.78	115.99	120.30
1	A	1295	C	N1-C2-N3	10.78	126.75	119.20
1	A	2894	C	N3-C4-N4	-10.78	110.45	118.00
1	A	416	G	C8-N9-C4	-10.78	102.09	106.40
2	B	76	A	N3-C4-N9	10.78	136.02	127.40
1	A	2811	U	N1-C2-N3	10.78	121.36	114.90
1	A	1700	C	N3-C4-C5	-10.77	117.59	121.90
1	A	2662	U	N1-C2-N3	10.77	121.36	114.90
1	A	1184	C	C5-C6-N1	10.77	126.38	121.00
1	A	2523	C	C6-N1-C1'	-10.77	107.88	120.80
1	A	425	G	C5-C6-O6	10.76	135.06	128.60
1	A	479	C	C6-N1-C2	10.76	124.61	120.30
1	A	2792	A	N9-C4-C5	-10.76	101.50	105.80
1	A	622	A	C4-C5-N7	10.75	116.08	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2442	G	N1-C2-N2	-10.75	106.52	116.20
1	A	1054	A	C4-C5-C6	10.75	122.38	117.00
1	A	2458	U	C5-C4-O4	-10.75	119.45	125.90
1	A	571	A	N9-C4-C5	10.75	110.10	105.80
1	A	2850	G	C8-N9-C4	10.74	110.70	106.40
1	A	49	A	OP1-P-OP2	-10.74	103.49	119.60
1	A	2672	G	N9-C1'-C2'	10.74	127.96	114.00
1	A	1203	U	C2-N1-C1'	-10.73	104.82	117.70
1	A	1240	U	C4-C5-C6	-10.73	113.26	119.70
1	A	355	G	C4-C5-N7	10.73	115.09	110.80
1	A	1287	U	C6-N1-C1'	-10.73	106.18	121.20
1	A	873	U	N1-C2-O2	-10.73	115.29	122.80
1	A	958	U	C2-N1-C1'	10.73	130.58	117.70
1	A	1023	A	O4'-C1'-N9	10.73	116.78	108.20
1	A	503	A	O4'-C1'-N9	10.73	116.78	108.20
1	A	533	C	N3-C4-N4	-10.73	110.49	118.00
1	A	880	A	N1-C6-N6	-10.72	112.17	118.60
1	A	2249	G	C6-C5-N7	-10.72	123.97	130.40
1	A	1324	A	N3-C4-N9	10.71	135.97	127.40
1	A	180	G	N3-C4-N9	10.70	132.42	126.00
1	A	2917	U	C6-N1-C2	-10.70	114.58	121.00
1	A	993	C	N3-C2-O2	-10.70	114.41	121.90
1	A	1047	G	N1-C2-N2	-10.69	106.58	116.20
1	A	1302	G	C4-C5-N7	10.69	115.08	110.80
1	A	492	G	N9-C4-C5	-10.69	101.12	105.40
1	A	2551	G	C4-C5-C6	10.69	125.21	118.80
1	A	18	C	N3-C4-C5	10.69	126.17	121.90
1	A	380	U	N1-C2-N3	10.69	121.31	114.90
1	A	1079	U	C5-C6-N1	10.69	128.04	122.70
1	A	2083	G	N7-C8-N9	10.69	118.44	113.10
1	A	2025	A	O5'-P-OP2	-10.68	96.09	105.70
1	A	867	U	O5'-P-OP2	-10.68	96.09	105.70
1	A	2701	G	C4-C5-C6	-10.68	112.39	118.80
1	A	2455	G	OP2-P-O3'	10.67	128.68	105.20
1	A	1043	U	N3-C2-O2	-10.67	114.73	122.20
1	A	2295	A	O4'-C1'-N9	10.67	116.73	108.20
1	A	1044	A	OP2-P-O3'	10.66	128.65	105.20
1	A	979	C	C6-N1-C2	-10.65	116.04	120.30
1	A	226	A	OP1-P-O3'	10.65	128.62	105.20
1	A	1053	A	OP2-P-O3'	10.64	128.62	105.20
1	A	660	A	C5-N7-C8	-10.64	98.58	103.90
1	A	861	C	O5'-P-OP1	-10.64	96.12	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1073	A	C6-C5-N7	-10.64	124.85	132.30
1	A	263	G	C8-N9-C4	-10.64	102.14	106.40
1	A	606	G	N7-C8-N9	10.64	118.42	113.10
1	A	2028	A	C4-C5-C6	-10.64	111.68	117.00
1	A	2642	U	C6-N1-C2	-10.63	114.62	121.00
1	A	2520	U	N1-C2-O2	10.63	130.24	122.80
1	A	599	A	C2-N3-C4	10.63	115.91	110.60
1	A	857	C	O5'-P-OP2	10.63	123.45	110.70
1	A	2854	A	C2-N3-C4	10.62	115.91	110.60
1	A	1024	A	N7-C8-N9	10.62	119.11	113.80
1	A	1066	G	N1-C2-N3	10.62	130.27	123.90
1	A	2863	G	C6-N1-C2	-10.62	118.73	125.10
1	A	1203	U	C6-N1-C1'	10.62	136.06	121.20
1	A	1351	C	C2-N1-C1'	10.61	130.47	118.80
1	A	2594	G	N3-C4-N9	10.61	132.37	126.00
1	A	1043	U	C6-N1-C1'	-10.61	106.35	121.20
1	A	1363	U	C5-C4-O4	-10.60	119.54	125.90
1	A	445	G	N1-C2-N2	10.60	125.74	116.20
1	A	2434	A	C8-N9-C4	-10.60	101.56	105.80
1	A	809	A	N7-C8-N9	10.59	119.10	113.80
1	A	2550	G	N3-C4-N9	10.59	132.36	126.00
1	A	2583	C	N1-C2-O2	10.59	125.25	118.90
1	A	2830	A	N7-C8-N9	10.59	119.09	113.80
1	A	2888	A	N9-C4-C5	10.59	110.03	105.80
1	A	35	G	N3-C2-N2	-10.59	112.49	119.90
1	A	704	U	N3-C2-O2	-10.59	114.79	122.20
1	A	2655	U	C2-N1-C1'	10.58	130.40	117.70
1	A	712	U	N3-C4-O4	-10.58	112.00	119.40
1	A	525	A	O5'-P-OP2	-10.57	96.18	105.70
1	A	1011	U	N3-C4-O4	10.57	126.80	119.40
1	A	1286	G	C6-C5-N7	-10.57	124.06	130.40
1	A	2597	G	C8-N9-C1'	-10.57	113.26	127.00
1	A	365	A	N9-C4-C5	-10.57	101.57	105.80
1	A	1274	G	C4-C5-C6	10.57	125.14	118.80
1	A	2667	G	C8-N9-C4	-10.56	102.17	106.40
1	A	242	U	C6-N1-C1'	10.56	135.99	121.20
1	A	1228	A	O5'-P-OP1	-10.56	96.20	105.70
1	A	2645	G	C5-C6-N1	10.55	116.78	111.50
1	A	201	C	N3-C2-O2	-10.55	114.51	121.90
1	A	576	U	N1-C2-N3	10.54	121.23	114.90
1	A	1195	A	C2-N3-C4	-10.54	105.33	110.60
1	A	2440	G	N3-C4-N9	10.54	132.33	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2914	A	C4-N9-C1'	10.54	145.26	126.30
1	A	1186	A	C8-N9-C4	-10.53	101.59	105.80
1	A	2541	U	C2-N3-C4	-10.53	120.68	127.00
1	A	36	G	C5-C6-O6	-10.53	122.28	128.60
1	A	2497	G	N7-C8-N9	10.53	118.36	113.10
1	A	1018	A	C8-N9-C4	10.53	110.01	105.80
1	A	1232	G	N1-C2-N2	-10.52	106.73	116.20
1	A	49	A	C8-N9-C4	-10.52	101.59	105.80
1	A	360	A	C5-C6-N6	10.52	132.12	123.70
1	A	721	A	O4'-C1'-N9	10.52	116.61	108.20
1	A	1048	U	N1-C2-N3	10.52	121.21	114.90
1	A	2642	U	N1-C2-O2	10.52	130.16	122.80
1	A	2090	C	C5-C4-N4	10.51	127.56	120.20
1	A	1283	G	C8-N9-C1'	10.51	140.66	127.00
1	A	2026	C	N3-C2-O2	-10.51	114.55	121.90
1	A	474	A	N9-C4-C5	10.50	110.00	105.80
1	A	643	G	C4-C5-N7	-10.50	106.60	110.80
1	A	857	C	C6-N1-C2	-10.50	116.10	120.30
1	A	253	G	C6-C5-N7	10.50	136.70	130.40
1	A	1186	A	N3-C4-C5	-10.50	119.45	126.80
1	A	2528	C	N3-C4-N4	-10.50	110.65	118.00
1	A	2740	A	N3-C4-C5	10.49	134.14	126.80
1	A	890	G	N9-C4-C5	-10.49	101.21	105.40
1	A	1012	G	C6-C5-N7	-10.49	124.11	130.40
1	A	2523	C	N3-C2-O2	-10.49	114.56	121.90
1	A	1195	A	N1-C6-N6	10.48	124.89	118.60
1	A	426	G	C5-N7-C8	-10.48	99.06	104.30
1	A	575	G	C4-N9-C1'	10.48	140.13	126.50
1	A	2037	G	N3-C4-C5	-10.48	123.36	128.60
1	A	598	G	N3-C2-N2	10.47	127.23	119.90
1	A	1251	A	O4'-C1'-N9	10.47	116.58	108.20
1	A	1367	C	N1-C2-O2	10.47	125.18	118.90
1	A	95	A	C4-C5-N7	10.47	115.93	110.70
1	A	2819	C	N1-C2-O2	10.47	125.18	118.90
1	A	2326	G	C4-C5-N7	10.46	114.99	110.80
1	A	2478	A	C5-N7-C8	10.46	109.13	103.90
1	A	2523	C	C2-N3-C4	-10.46	114.67	119.90
1	A	660	A	N7-C8-N9	10.46	119.03	113.80
1	A	1047	G	N3-C2-N2	10.46	127.22	119.90
1	A	2383	C	O5'-P-OP1	-10.46	96.29	105.70
1	A	1182	G	N3-C4-N9	10.45	132.27	126.00
1	A	1194	U	C2-N1-C1'	10.45	130.24	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1395	G	C6-C5-N7	-10.45	124.13	130.40
1	A	1802	U	N3-C2-O2	-10.45	114.88	122.20
1	A	2313	A	C8-N9-C4	10.44	109.98	105.80
1	A	2458	U	N3-C4-O4	10.44	126.71	119.40
1	A	1308	C	C5-C4-N4	-10.44	112.89	120.20
1	A	2045	A	N9-C1'-C2'	10.44	127.57	114.00
1	A	1259	U	N1-C2-O2	10.44	130.11	122.80
1	A	2045	A	C5-N7-C8	-10.44	98.68	103.90
1	A	1017	A	N9-C4-C5	-10.44	101.63	105.80
1	A	1300	G	C5-C6-N1	10.44	116.72	111.50
1	A	377	U	C5-C6-N1	10.43	127.92	122.70
1	A	1196	C	O5'-P-OP2	-10.43	96.32	105.70
1	A	1253	G	N1-C6-O6	-10.42	113.65	119.90
1	A	1241	A	N3-C4-C5	-10.42	119.51	126.80
1	A	2811	U	C6-N1-C2	-10.42	114.75	121.00
1	A	1199	A	N1-C6-N6	-10.42	112.35	118.60
1	A	222	A	C8-N9-C4	-10.41	101.63	105.80
1	A	494	U	O5'-P-OP2	10.41	123.20	110.70
1	A	1364	C	C5-C6-N1	10.41	126.21	121.00
1	A	2461	A	C5-C6-N6	-10.41	115.37	123.70
1	A	479	C	O5'-P-OP1	-10.41	96.33	105.70
1	A	2456	G	C5-C6-O6	10.41	134.84	128.60
1	A	1372	C	C6-N1-C2	-10.41	116.14	120.30
1	A	151	U	C5-C4-O4	-10.40	119.66	125.90
1	A	1288	G	P-O3'-C3'	10.40	132.18	119.70
1	A	2285	C	C6-N1-C2	-10.40	116.14	120.30
1	A	563	G	N7-C8-N9	-10.40	107.90	113.10
1	A	872	U	N1-C2-O2	10.40	130.08	122.80
1	A	2375	U	N3-C2-O2	-10.39	114.92	122.20
1	A	2061	U	O4'-C1'-N1	10.39	116.51	108.20
1	A	2044	C	N3-C4-N4	10.39	125.27	118.00
1	A	500	A	N7-C8-N9	10.39	118.99	113.80
1	A	2568	A	C5-C6-N1	10.38	122.89	117.70
1	A	634	C	C5'-C4'-O4'	10.38	121.56	109.10
1	A	2062	G	C8-N9-C4	-10.38	102.25	106.40
1	A	22	C	N3-C2-O2	-10.38	114.63	121.90
1	A	500	A	N3-C4-C5	-10.38	119.54	126.80
1	A	582	G	C6-N1-C2	-10.38	118.88	125.10
1	A	2803	A	C8-N9-C1'	-10.37	109.04	127.70
1	A	846	G	N3-C2-N2	-10.37	112.64	119.90
1	A	634	C	C2-N1-C1'	-10.36	107.40	118.80
1	A	2501	U	N1-C2-O2	10.36	130.05	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	896	U	O5'-P-OP2	10.35	123.12	110.70
1	A	1268	C	C2-N1-C1'	10.35	130.18	118.80
1	A	419	U	N1-C2-N3	10.35	121.11	114.90
1	A	2526	C	C5-C6-N1	10.34	126.17	121.00
1	A	554	C	C5-C4-N4	-10.34	112.96	120.20
1	A	544	U	N3-C4-O4	-10.34	112.17	119.40
1	A	616	G	N1-C6-O6	-10.34	113.70	119.90
1	A	1200	A	C4-C5-N7	10.33	115.87	110.70
1	A	2274	A	N9-C4-C5	-10.33	101.67	105.80
1	A	2026	C	C5-C6-N1	-10.33	115.84	121.00
1	A	595	G	C2-N3-C4	10.32	117.06	111.90
1	A	308	C	N3-C2-O2	-10.32	114.68	121.90
1	A	910	C	C5-C6-N1	-10.32	115.84	121.00
1	A	376	A	C8-N9-C4	-10.32	101.67	105.80
1	A	1264	A	C5-C6-N6	10.32	131.95	123.70
1	A	1297	G	N7-C8-N9	10.32	118.26	113.10
1	A	2082	C	C5-C6-N1	10.32	126.16	121.00
1	A	1269	A	N9-C4-C5	-10.31	101.68	105.80
1	A	1056	U	C5-C4-O4	-10.31	119.72	125.90
1	A	1944	U	C5-C4-O4	-10.30	119.72	125.90
1	A	2497	G	N1-C6-O6	10.30	126.08	119.90
1	A	2645	G	N1-C2-N3	-10.29	117.72	123.90
1	A	177	G	C8-N9-C1'	-10.29	113.62	127.00
1	A	870	C	C6-N1-C2	-10.29	116.18	120.30
1	A	381	G	C8-N9-C1'	-10.29	113.62	127.00
1	A	1288	G	C4-C5-C6	10.29	124.97	118.80
1	A	2429	U	C2-N1-C1'	10.29	130.05	117.70
1	A	2702	A	C5-C6-N6	10.29	131.93	123.70
1	A	2020	U	N3-C2-O2	-10.28	115.00	122.20
1	A	2273	G	N1-C6-O6	-10.28	113.73	119.90
1	A	2056	G	N7-C8-N9	10.28	118.24	113.10
1	A	2910	G	N3-C4-N9	10.28	132.17	126.00
1	A	1363	U	N1-C2-O2	10.28	129.99	122.80
1	A	864	A	C8-N9-C1'	10.27	146.19	127.70
1	A	1016	G	C5-N7-C8	-10.27	99.16	104.30
1	A	194	A	C2-N3-C4	10.27	115.73	110.60
1	A	906	A	C5-C6-N6	10.27	131.91	123.70
1	A	1066	G	N7-C8-N9	10.27	118.23	113.10
1	A	2910	G	N3-C4-C5	-10.26	123.47	128.60
1	A	24	G	C8-N9-C4	-10.26	102.30	106.40
1	A	1012	G	C5-N7-C8	-10.26	99.17	104.30
1	A	963	A	N7-C8-N9	10.26	118.93	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1056	U	C5-C6-N1	10.26	127.83	122.70
1	A	1800	A	C8-N9-C4	-10.26	101.70	105.80
1	A	2509	A	N7-C8-N9	10.26	118.93	113.80
1	A	984	G	N1-C6-O6	10.26	126.05	119.90
1	A	1286	G	C5-N7-C8	-10.26	99.17	104.30
1	A	526	A	C6-N1-C2	-10.25	112.45	118.60
1	A	1197	C	O5'-P-OP1	-10.25	96.47	105.70
1	A	373	A	C4-N9-C1'	10.25	144.75	126.30
1	A	380	U	O4'-C1'-N1	10.25	116.40	108.20
1	A	530	C	N3-C4-N4	10.25	125.17	118.00
1	A	720	A	O5'-P-OP1	-10.24	96.48	105.70
1	A	2052	C	N3-C4-C5	10.24	126.00	121.90
1	A	1005	G	C5-C6-N1	10.24	116.62	111.50
1	A	332	A	N3-C4-N9	10.24	135.59	127.40
1	A	896	U	N3-C2-O2	-10.24	115.03	122.20
1	A	883	C	N1-C2-N3	-10.24	112.03	119.20
1	A	2309	G	C4-C5-N7	-10.24	106.70	110.80
1	A	2661	A	C5-C6-N1	10.24	122.82	117.70
1	A	2444	C	N3-C2-O2	-10.24	114.73	121.90
1	A	1007	U	OP1-P-OP2	10.23	134.95	119.60
1	A	2830	A	C4-C5-N7	10.23	115.82	110.70
1	A	1028	G	C5-N7-C8	-10.23	99.19	104.30
1	A	2568	A	C6-C5-N7	-10.23	125.14	132.30
1	A	1043	U	C6-N1-C2	10.22	127.13	121.00
1	A	2857	A	C4-C5-N7	10.22	115.81	110.70
1	A	873	U	N3-C4-O4	10.22	126.55	119.40
1	A	1201	G	C8-N9-C4	-10.22	102.31	106.40
1	A	1289	A	C6-C5-N7	-10.21	125.15	132.30
1	A	859	C	N3-C4-N4	-10.21	110.85	118.00
1	A	2273	G	C5-C6-N1	10.21	116.61	111.50
1	A	2497	G	C4-C5-N7	10.21	114.88	110.80
1	A	828	A	N1-C6-N6	-10.21	112.48	118.60
1	A	194	A	N9-C4-C5	10.21	109.88	105.80
1	A	2442	G	N1-C6-O6	-10.20	113.78	119.90
1	A	2274	A	C5-C6-N1	10.20	122.80	117.70
1	A	1050	C	C5-C4-N4	-10.20	113.06	120.20
1	A	1360	G	C2-N3-C4	10.20	117.00	111.90
1	A	2471	G	N3-C4-N9	10.20	132.12	126.00
2	B	85	U	C2-N1-C1'	10.20	129.94	117.70
1	A	460	C	N1-C2-O2	10.20	125.02	118.90
1	A	526	A	N1-C6-N6	-10.20	112.48	118.60
1	A	2850	G	N9-C4-C5	-10.20	101.32	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	24	G	N3-C4-N9	-10.19	119.88	126.00
1	A	1228	A	C4-N9-C1'	10.19	144.65	126.30
1	A	28	A	C5-C6-N6	10.19	131.85	123.70
1	A	521	U	C6-N1-C1'	-10.19	106.94	121.20
1	A	2029	G	N3-C4-N9	-10.19	119.89	126.00
1	A	2077	C	O5'-P-OP2	10.19	122.93	110.70
1	A	1047	G	C4-C5-N7	10.19	114.87	110.80
1	A	1235	C	C5-C4-N4	-10.18	113.07	120.20
1	A	119	U	C2-N1-C1'	10.18	129.91	117.70
1	A	1692	C	N1-C2-O2	10.18	125.01	118.90
1	A	2803	A	C4-N9-C1'	10.18	144.62	126.30
1	A	1162	C	O4'-C1'-N1	10.17	116.34	108.20
1	A	1256	U	N1-C2-O2	10.17	129.92	122.80
1	A	1692	C	N3-C4-N4	10.17	125.12	118.00
1	A	2519	U	N3-C2-O2	-10.17	115.08	122.20
1	A	702	U	C5-C4-O4	-10.17	119.80	125.90
1	A	1360	G	N1-C6-O6	-10.17	113.80	119.90
1	A	2604	A	C4-C5-N7	-10.16	105.62	110.70
1	A	550	A	C8-N9-C4	-10.16	101.73	105.80
1	A	1261	G	P-O3'-C3'	10.16	131.90	119.70
1	A	634	C	C6-N1-C1'	10.16	132.99	120.80
1	A	1084	U	N1-C2-O2	10.16	129.91	122.80
1	A	2033	C	C6-N1-C2	-10.16	116.24	120.30
1	A	495	A	N1-C2-N3	-10.16	124.22	129.30
1	A	1175	G	C5-C6-O6	-10.15	122.51	128.60
1	A	1261	G	OP2-P-O3'	10.15	127.53	105.20
1	A	1354	G	N1-C6-O6	-10.15	113.81	119.90
1	A	2830	A	C2-N3-C4	-10.15	105.52	110.60
1	A	2740	A	C2-N3-C4	-10.15	105.53	110.60
1	A	1429	G	C6-C5-N7	-10.14	124.31	130.40
1	A	586	C	C5-C4-N4	10.14	127.30	120.20
1	A	1235	C	C5-C6-N1	10.14	126.07	121.00
1	A	2903	A	C4-C5-N7	10.14	115.77	110.70
1	A	1007	U	O5'-P-OP2	-10.14	96.58	105.70
1	A	284	C	N1-C2-O2	10.13	124.98	118.90
1	A	1225	G	C5-C6-O6	10.13	134.68	128.60
1	A	360	A	N1-C2-N3	10.13	134.37	129.30
1	A	1806	U	O5'-P-OP1	-10.13	96.58	105.70
31	a	135	C	N1-C2-O2	10.13	124.98	118.90
1	A	666	A	N7-C8-N9	10.13	118.86	113.80
1	A	958	U	C6-N1-C2	-10.13	114.92	121.00
1	A	2481	G	N1-C6-O6	-10.13	113.82	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2457	A	C6-C5-N7	-10.12	125.21	132.30
1	A	968	A	N1-C6-N6	-10.12	112.53	118.60
1	A	2868	G	OP1-P-OP2	-10.12	104.42	119.60
1	A	26	G	C5-C6-N1	10.12	116.56	111.50
1	A	1226	G	C6-N1-C2	-10.12	119.03	125.10
1	A	2249	G	C5-N7-C8	-10.12	99.24	104.30
1	A	2699	U	C5-C4-O4	-10.12	119.83	125.90
1	A	69	C	C6-N1-C2	-10.12	116.25	120.30
1	A	2887	G	C2-N3-C4	10.12	116.96	111.90
1	A	1032	A	N3-C4-C5	-10.11	119.72	126.80
1	A	1994	C	N3-C2-O2	-10.11	114.83	121.90
2	B	2	C	N1-C2-O2	10.11	124.96	118.90
1	A	633	A	N3-C4-C5	-10.10	119.73	126.80
1	A	667	G	C6-C5-N7	-10.10	124.34	130.40
1	A	993	C	C4-C5-C6	10.10	122.45	117.40
1	A	2519	U	N1-C2-O2	10.10	129.87	122.80
1	A	2090	C	C2-N3-C4	10.10	124.95	119.90
1	A	96	G	C2-N3-C4	-10.10	106.85	111.90
1	A	648	G	N1-C2-N2	-10.10	107.11	116.20
1	A	608	C	O5'-P-OP1	10.10	122.81	110.70
1	A	2326	G	N9-C4-C5	-10.10	101.36	105.40
1	A	1207	G	C4-C5-N7	10.09	114.84	110.80
1	A	703	A	N3-C4-C5	-10.09	119.73	126.80
1	A	2747	U	C4-C5-C6	10.09	125.75	119.70
1	A	1179	C	C5-C4-N4	10.09	127.26	120.20
1	A	2577	G	C2-N3-C4	-10.09	106.86	111.90
1	A	45	G	C4-C5-C6	10.09	124.85	118.80
1	A	21	A	C5-C6-N6	-10.08	115.64	123.70
1	A	1226	G	N3-C4-C5	-10.08	123.56	128.60
1	A	1284	A	C4-C5-C6	-10.08	111.96	117.00
1	A	371	U	N1-C2-O2	10.08	129.85	122.80
1	A	575	G	N7-C8-N9	10.07	118.14	113.10
1	A	910	C	O5'-P-OP1	10.07	122.79	110.70
1	A	2645	G	C8-N9-C4	10.07	110.43	106.40
1	A	2586	C	C6-N1-C2	-10.07	116.27	120.30
1	A	622	A	O5'-P-OP2	10.06	122.78	110.70
1	A	1601	U	N3-C4-O4	-10.06	112.36	119.40
1	A	2475	A	O5'-P-OP2	-10.06	96.64	105.70
1	A	2667	G	C6-C5-N7	10.06	136.44	130.40
1	A	32	C	N3-C4-C5	10.06	125.92	121.90
1	A	2759	G	N9-C4-C5	10.06	109.42	105.40
1	A	632	U	C6-N1-C2	-10.06	114.97	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2523	C	C2-N1-C1'	10.05	129.86	118.80
1	A	1198	G	C2-N3-C4	-10.05	106.88	111.90
1	A	991	A	C5-C6-N6	-10.04	115.66	123.70
1	A	1367	C	C2-N1-C1'	10.04	129.85	118.80
1	A	1267	A	C8-N9-C4	-10.04	101.78	105.80
1	A	2604	A	C6-C5-N7	10.04	139.33	132.30
1	A	379	C	O5'-P-OP1	-10.04	96.67	105.70
1	A	2644	C	N3-C2-O2	-10.04	114.87	121.90
1	A	1020	G	C6-N1-C2	-10.04	119.08	125.10
1	A	2845	G	C4-C5-N7	10.03	114.81	110.80
1	A	908	A	C5-C6-N1	10.03	122.72	117.70
1	A	908	A	C4-N9-C1'	10.03	144.35	126.30
1	A	1181	G	N3-C4-N9	10.03	132.02	126.00
1	A	2702	A	N9-C4-C5	10.03	109.81	105.80
1	A	95	A	C5-C6-N1	10.03	122.71	117.70
1	A	2363	A	N9-C4-C5	10.02	109.81	105.80
1	A	1301	U	C6-N1-C1'	-10.01	107.19	121.20
1	A	541	G	N3-C2-N2	-10.01	112.89	119.90
1	A	606	G	N3-C4-C5	10.01	133.60	128.60
1	A	900	G	C5-C6-N1	10.00	116.50	111.50
31	a	970	U	N1-C2-O2	10.00	129.80	122.80
1	A	2759	G	N3-C4-N9	-10.00	120.00	126.00
1	A	2284	U	N1-C2-N3	10.00	120.90	114.90
1	A	2064	A	C6-N1-C2	-10.00	112.60	118.60
1	A	25	U	N1-C2-N3	9.99	120.90	114.90
1	A	522	G	N3-C2-N2	-9.99	112.91	119.90
1	A	198	A	C6-N1-C2	-9.99	112.61	118.60
1	A	424	C	C5-C4-N4	9.99	127.19	120.20
1	A	714	G	C6-C5-N7	-9.99	124.41	130.40
1	A	1252	A	OP1-P-OP2	-9.99	104.62	119.60
1	A	1395	G	N7-C8-N9	9.99	118.09	113.10
1	A	1032	A	C2-N3-C4	9.99	115.59	110.60
1	A	2060	A	N7-C8-N9	9.98	118.79	113.80
1	A	587	C	C2-N3-C4	-9.98	114.91	119.90
1	A	1343	U	N3-C2-O2	-9.98	115.22	122.20
1	A	894	A	N9-C4-C5	-9.97	101.81	105.80
1	A	2065	G	N7-C8-N9	9.97	118.08	113.10
1	A	2029	G	C8-N9-C4	-9.97	102.41	106.40
1	A	2645	G	C2-N3-C4	9.97	116.88	111.90
1	A	2093	C	C5-C4-N4	9.96	127.17	120.20
1	A	532	C	C2-N1-C1'	9.96	129.76	118.80
1	A	700	A	N1-C2-N3	-9.96	124.32	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	490	C	N3-C2-O2	-9.96	114.93	121.90
1	A	1049	C	C2-N3-C4	9.95	124.88	119.90
1	A	2915	C	C5-C6-N1	9.95	125.97	121.00
1	A	488	G	C5-N7-C8	-9.94	99.33	104.30
1	A	993	C	C2-N3-C4	-9.94	114.93	119.90
1	A	1019	A	OP2-P-O3'	9.94	127.06	105.20
1	A	2840	A	C5-N7-C8	-9.94	98.93	103.90
1	A	1378	U	N3-C2-O2	-9.94	115.25	122.20
1	A	2027	G	C4-C5-N7	-9.94	106.83	110.80
1	A	2701	G	C2-N3-C4	9.94	116.87	111.90
1	A	2523	C	OP1-P-OP2	9.93	134.50	119.60
1	A	2381	A	N7-C8-N9	-9.93	108.83	113.80
1	A	181	G	OP1-P-OP2	-9.93	104.71	119.60
1	A	892	U	N1-C2-O2	9.93	129.75	122.80
1	A	1239	C	N1-C2-N3	9.93	126.15	119.20
1	A	1271	G	N1-C6-O6	-9.93	113.94	119.90
1	A	2803	A	N3-C4-N9	9.93	135.34	127.40
1	A	1356	G	N3-C4-N9	9.92	131.95	126.00
1	A	999	U	N1-C2-N3	9.92	120.85	114.90
1	A	2047	A	N1-C2-N3	-9.92	124.34	129.30
2	B	76	A	C4-C5-N7	9.92	115.66	110.70
1	A	36	G	C6-C5-N7	-9.92	124.45	130.40
1	A	263	G	C5-N7-C8	-9.92	99.34	104.30
1	A	2482	G	C4-C5-C6	9.92	124.75	118.80
1	A	2094	G	C5-C6-O6	9.91	134.55	128.60
1	A	2528	C	C2-N3-C4	-9.91	114.94	119.90
1	A	177	G	C5-C6-O6	-9.91	122.66	128.60
1	A	692	G	C8-N9-C4	-9.91	102.44	106.40
1	A	27	G	N1-C2-N3	9.91	129.84	123.90
1	A	28	A	C6-C5-N7	9.90	139.23	132.30
1	A	1008	C	C2-N1-C1'	9.90	129.69	118.80
1	A	1696	C	N3-C4-N4	-9.90	111.07	118.00
1	A	2058	A	C2-N3-C4	-9.90	105.65	110.60
1	A	494	U	C5-C6-N1	9.89	127.65	122.70
1	A	2578	C	N3-C4-C5	-9.89	117.94	121.90
1	A	644	C	C2-N1-C1'	-9.89	107.92	118.80
1	A	864	A	C4-C5-C6	-9.89	112.05	117.00
1	A	1248	U	O4'-C1'-N1	9.88	116.11	108.20
1	A	643	G	C2-N3-C4	-9.88	106.96	111.90
1	A	668	C	OP1-P-OP2	-9.87	104.79	119.60
1	A	895	U	N1-C2-O2	9.88	129.71	122.80
1	A	424	C	C2-N3-C4	-9.87	114.96	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2597	G	C5-N7-C8	-9.87	99.37	104.30
1	A	201	C	N3-C4-C5	9.86	125.84	121.90
1	A	565	G	C5-N7-C8	-9.86	99.37	104.30
1	A	979	C	C5-C6-N1	9.86	125.93	121.00
1	A	1238	U	N1-C2-N3	9.86	120.81	114.90
1	A	470	G	C8-N9-C1'	9.85	139.81	127.00
1	A	2411	A	N1-C6-N6	9.85	124.51	118.60
31	a	902	C	C2-N1-C1'	9.85	129.64	118.80
1	A	2322	C	C5-C6-N1	9.85	125.92	121.00
1	A	563	G	N3-C4-C5	-9.85	123.68	128.60
1	A	427	A	N1-C2-N3	-9.85	124.38	129.30
1	A	1201	G	O5'-P-OP2	-9.85	96.84	105.70
1	A	707	G	N3-C2-N2	-9.84	113.01	119.90
1	A	2451	C	C6-N1-C2	-9.84	116.36	120.30
1	A	2641	A	C2-N3-C4	9.84	115.52	110.60
1	A	1261	G	N9-C4-C5	-9.84	101.46	105.40
1	A	53	A	C4-C5-C6	-9.84	112.08	117.00
1	A	1200	A	C4-C5-C6	-9.84	112.08	117.00
1	A	2664	U	C5-C6-N1	9.84	127.62	122.70
1	A	479	C	C2-N1-C1'	-9.83	107.98	118.80
1	A	1014	U	OP1-P-OP2	-9.83	104.85	119.60
1	A	2870	A	O5'-P-OP1	-9.83	96.85	105.70
1	A	2898	U	C5-C6-N1	9.83	127.62	122.70
1	A	1980	A	C8-N9-C4	-9.83	101.87	105.80
1	A	2017	C	N3-C4-C5	9.83	125.83	121.90
1	A	1200	A	O5'-P-OP1	9.82	122.49	110.70
1	A	2397	G	C4-C5-N7	-9.82	106.87	110.80
1	A	586	C	N3-C2-O2	-9.82	115.03	121.90
1	A	1994	C	N1-C2-O2	9.82	124.79	118.90
1	A	2418	G	N1-C2-N3	9.82	129.79	123.90
1	A	2078	A	C6-N1-C2	-9.82	112.71	118.60
1	A	584	G	N3-C2-N2	9.82	126.77	119.90
1	A	2819	C	N3-C2-O2	-9.82	115.03	121.90
1	A	533	C	P-O3'-C3'	9.81	131.47	119.70
1	A	2702	A	N3-C4-N9	-9.81	119.55	127.40
1	A	461	A	N9-C4-C5	-9.81	101.88	105.80
1	A	95	A	N1-C6-N6	9.80	124.48	118.60
1	A	517	A	N1-C6-N6	-9.80	112.72	118.60
1	A	2664	U	N1-C2-N3	9.80	120.78	114.90
1	A	371	U	N3-C2-O2	-9.80	115.34	122.20
1	A	2320	C	C2-N1-C1'	9.80	129.58	118.80
1	A	1000	G	C4-C5-C6	9.80	124.68	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2509	A	C5-N7-C8	-9.80	99.00	103.90
1	A	2898	U	C2-N1-C1'	9.80	129.46	117.70
1	A	1302	G	OP1-P-O3'	9.80	126.75	105.20
1	A	2583	C	C2-N1-C1'	9.80	129.58	118.80
1	A	2757	U	N3-C4-O4	-9.80	112.54	119.40
1	A	639	U	C6-N1-C2	-9.79	115.12	121.00
1	A	2055	U	O4'-C1'-N1	9.79	116.03	108.20
1	A	668	C	O5'-P-OP2	9.79	122.44	110.70
1	A	2037	G	N1-C2-N3	9.79	129.77	123.90
1	A	2589	U	N3-C2-O2	-9.78	115.35	122.20
1	A	2080	G	C4-C5-N7	-9.78	106.89	110.80
1	A	367	A	O5'-P-OP2	-9.78	96.90	105.70
1	A	557	G	N3-C4-N9	9.77	131.86	126.00
1	A	2085	A	OP1-P-OP2	-9.77	104.94	119.60
1	A	2904	U	C5-C6-N1	9.77	127.58	122.70
1	A	901	G	N7-C8-N9	-9.77	108.22	113.10
1	A	1027	A	C5-C6-N6	9.77	131.51	123.70
1	A	2638	C	N3-C2-O2	-9.77	115.06	121.90
1	A	3	U	N3-C2-O2	-9.76	115.37	122.20
31	a	1182	C	C5-C6-N1	9.76	125.88	121.00
31	a	600	U	N3-C2-O2	-9.76	115.37	122.20
1	A	557	G	C8-N9-C1'	-9.76	114.32	127.00
1	A	2857	A	C8-N9-C4	-9.76	101.90	105.80
1	A	186	C	C6-N1-C2	-9.75	116.40	120.30
1	A	879	U	N1-C2-O2	9.75	129.63	122.80
1	A	267	G	C4-N9-C1'	9.75	139.18	126.50
1	A	964	U	N1-C2-O2	9.75	129.62	122.80
1	A	2550	G	C6-N1-C2	-9.75	119.25	125.10
1	A	563	G	O4'-C1'-N9	9.74	116.00	108.20
1	A	996	G	C2-N3-C4	-9.74	107.03	111.90
1	A	1042	C	O5'-P-OP1	9.74	122.39	110.70
1	A	71	A	C5-N7-C8	-9.74	99.03	103.90
1	A	893	G	C6-N1-C2	-9.73	119.26	125.10
1	A	2391	C	N3-C4-N4	9.73	124.81	118.00
1	A	2597	G	N3-C4-C5	-9.73	123.73	128.60
1	A	2501	U	N3-C2-O2	-9.73	115.39	122.20
1	A	2078	A	C5-C6-N1	9.73	122.56	117.70
1	A	2473	G	C4-C5-N7	9.73	114.69	110.80
1	A	2803	A	C6-N1-C2	-9.72	112.77	118.60
1	A	426	G	C8-N9-C1'	9.72	139.63	127.00
1	A	1288	G	N7-C8-N9	9.72	117.96	113.10
1	A	963	A	C5-N7-C8	-9.72	99.04	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	961	G	N7-C8-N9	9.71	117.96	113.10
1	A	2321	C	O5'-P-OP2	-9.71	96.96	105.70
1	A	2037	G	O5'-P-OP2	9.71	122.35	110.70
1	A	238	U	C2-N1-C1'	9.71	129.35	117.70
1	A	368	A	C8-N9-C1'	-9.71	110.22	127.70
1	A	1185	U	N1-C2-N3	9.71	120.72	114.90
1	A	2472	G	C6-C5-N7	9.71	136.22	130.40
1	A	625	G	N1-C6-O6	-9.70	114.08	119.90
1	A	1767	G	N3-C4-N9	9.70	131.82	126.00
1	A	1816	A	C6-C5-N7	-9.70	125.51	132.30
1	A	2065	G	C2-N3-C4	-9.70	107.05	111.90
1	A	1274	G	O5'-P-OP1	-9.70	96.97	105.70
1	A	639	U	N1-C2-O2	9.70	129.59	122.80
1	A	959	C	C4-C5-C6	-9.70	112.55	117.40
1	A	2914	A	C8-N9-C1'	-9.69	110.25	127.70
1	A	622	A	N7-C8-N9	9.69	118.65	113.80
1	A	33	U	O4'-C1'-N1	9.69	115.95	108.20
1	A	668	C	C6-N1-C2	-9.69	116.42	120.30
1	A	2758	G	N3-C4-N9	-9.69	120.19	126.00
1	A	2890	C	N3-C4-C5	9.69	125.78	121.90
1	A	2527	U	C5-C4-O4	-9.69	120.09	125.90
1	A	2523	C	N1-C2-O2	9.68	124.71	118.90
1	A	30	G	C8-N9-C4	-9.68	102.53	106.40
1	A	354	A	C4-N9-C1'	9.68	143.72	126.30
1	A	615	A	C6-C5-N7	9.67	139.07	132.30
1	A	2673	C	N3-C2-O2	-9.67	115.13	121.90
1	A	2452	A	C5-N7-C8	-9.67	99.06	103.90
1	A	2704	A	C4-N9-C1'	9.67	143.70	126.30
1	A	445	G	N1-C6-O6	-9.66	114.10	119.90
1	A	555	C	N3-C2-O2	-9.66	115.14	121.90
1	A	1063	U	O4'-C1'-N1	9.66	115.93	108.20
1	A	362	C	C6-N1-C1'	9.66	132.39	120.80
1	A	595	G	O4'-C1'-N9	9.66	115.93	108.20
1	A	1201	G	N1-C6-O6	9.66	125.69	119.90
1	A	85	G	C4-C5-N7	9.65	114.66	110.80
1	A	1035	C	C6-N1-C2	-9.65	116.44	120.30
1	A	2518	U	C2-N1-C1'	9.65	129.28	117.70
1	A	2804	G	OP1-P-OP2	-9.65	105.12	119.60
1	A	267	G	C4-C5-N7	9.65	114.66	110.80
1	A	2057	A	O5'-P-OP1	9.64	122.27	110.70
1	A	1702	C	C6-N1-C2	-9.64	116.44	120.30
1	A	2453	A	O5'-P-OP2	9.64	122.27	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	66	C	C6-N1-C2	-9.64	116.44	120.30
1	A	177	G	N7-C8-N9	9.64	117.92	113.10
1	A	1290	G	C4-N9-C1'	9.64	139.03	126.50
1	A	2639	C	N3-C4-N4	-9.64	111.25	118.00
1	A	1302	G	N9-C4-C5	-9.63	101.55	105.40
1	A	342	A	C8-N9-C4	-9.63	101.95	105.80
1	A	492	G	C4-C5-N7	9.63	114.65	110.80
1	A	2370	U	N3-C2-O2	-9.63	115.46	122.20
1	A	1057	A	P-O3'-C3'	9.62	131.25	119.70
1	A	1263	A	N3-C4-C5	9.62	133.54	126.80
1	A	383	A	C5-C6-N1	9.62	122.51	117.70
1	A	237	U	N1-C2-O2	9.61	129.53	122.80
1	A	354	A	C4-C5-C6	9.61	121.81	117.00
1	A	117	A	N3-C4-N9	9.61	135.09	127.40
1	A	2473	G	C2-N3-C4	-9.61	107.09	111.90
1	A	382	U	N3-C4-C5	-9.61	108.84	114.60
1	A	295	G	N7-C8-N9	9.60	117.90	113.10
1	A	1174	U	N1-C2-N3	-9.60	109.14	114.90
1	A	2550	G	C8-N9-C4	-9.60	102.56	106.40
1	A	2443	C	C6-N1-C1'	-9.60	109.28	120.80
1	A	1051	C	O5'-P-OP1	-9.60	97.06	105.70
1	A	1286	G	C5-C6-N1	9.60	116.30	111.50
1	A	236	A	C8-N9-C4	-9.59	101.96	105.80
1	A	1272	U	C2-N3-C4	-9.59	121.24	127.00
1	A	355	G	N3-C4-N9	9.59	131.75	126.00
1	A	1322	G	C4-C5-C6	9.59	124.56	118.80
1	A	265	A	C2-N3-C4	9.59	115.39	110.60
1	A	1051	C	C2-N1-C1'	9.59	129.34	118.80
1	A	2471	G	C4-C5-C6	-9.59	113.05	118.80
1	A	2889	G	O5'-P-OP1	-9.58	97.08	105.70
31	a	970	U	N3-C2-O2	-9.58	115.49	122.20
1	A	575	G	C5-N7-C8	-9.58	99.51	104.30
1	A	2027	G	C8-N9-C4	-9.58	102.57	106.40
1	A	2059	G	N1-C6-O6	-9.58	114.15	119.90
1	A	977	A	C5-N7-C8	-9.58	99.11	103.90
1	A	2482	G	N3-C4-N9	-9.58	120.25	126.00
1	A	2593	A	N7-C8-N9	9.58	118.59	113.80
1	A	625	G	C8-N9-C4	-9.57	102.57	106.40
1	A	53	A	C4-C5-N7	9.57	115.48	110.70
1	A	947	U	C2-N1-C1'	9.57	129.19	117.70
1	A	1009	C	C5-C6-N1	9.57	125.78	121.00
1	A	1025	A	N9-C4-C5	-9.57	101.97	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1072	A	C4-N9-C1'	9.57	143.52	126.30
1	A	2546	U	N3-C4-C5	-9.57	108.86	114.60
1	A	1368	C	N1-C2-N3	9.56	125.89	119.20
1	A	1800	A	N9-C4-C5	9.56	109.62	105.80
1	A	2320	C	C5-C6-N1	9.56	125.78	121.00
1	A	1054	A	C6-C5-N7	-9.56	125.61	132.30
1	A	2077	C	N1-C1'-C2'	9.56	126.42	114.00
1	A	2637	C	C6-N1-C2	-9.56	116.48	120.30
1	A	625	G	C6-C5-N7	9.56	136.13	130.40
1	A	2854	A	O4'-C1'-N9	9.55	115.84	108.20
1	A	905	U	P-O3'-C3'	9.55	131.16	119.70
1	A	1239	C	C5-C6-N1	9.55	125.78	121.00
1	A	592	A	C4-C5-C6	-9.55	112.23	117.00
1	A	1290	G	N1-C6-O6	-9.55	114.17	119.90
1	A	2049	U	C5-C4-O4	9.55	131.63	125.90
1	A	967	C	C5-C4-N4	9.54	126.88	120.20
1	A	704	U	C2-N1-C1'	9.54	129.15	117.70
1	A	1705	G	C6-N1-C2	-9.54	119.38	125.10
1	A	2150	A	C5-N7-C8	9.54	108.67	103.90
1	A	32	C	C2-N3-C4	-9.54	115.13	119.90
1	A	48	G	N7-C8-N9	9.54	117.87	113.10
1	A	2063	C	O4'-C1'-N1	9.54	115.83	108.20
1	A	295	G	C8-N9-C4	-9.54	102.58	106.40
1	A	488	G	N9-C4-C5	9.54	109.22	105.40
1	A	2454	C	C6-N1-C1'	9.54	132.25	120.80
1	A	948	U	N1-C2-O2	9.54	129.47	122.80
1	A	2061	U	C5-C4-O4	-9.53	120.18	125.90
1	A	2418	G	N9-C4-C5	9.53	109.21	105.40
1	A	2091	C	C6-N1-C2	-9.53	116.49	120.30
1	A	2283	G	C2-N3-C4	-9.53	107.13	111.90
1	A	117	A	C8-N9-C4	-9.53	101.99	105.80
1	A	1297	G	N1-C2-N3	9.53	129.62	123.90
1	A	193	A	N1-C6-N6	9.53	124.32	118.60
1	A	721	A	N3-C4-N9	-9.53	119.78	127.40
1	A	2047	A	N1-C6-N6	9.53	124.32	118.60
1	A	1261	G	O4'-C1'-N9	9.52	115.82	108.20
1	A	2646	U	O5'-P-OP2	9.52	122.13	110.70
1	A	1182	G	C2-N3-C4	9.52	116.66	111.90
1	A	2544	C	N1-C1'-C2'	-9.52	101.53	112.00
1	A	1257	G	C2-N3-C4	-9.51	107.15	111.90
31	a	55	C	N1-C2-O2	9.51	124.60	118.90
1	A	1067	U	C4-C5-C6	9.50	125.40	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2093	C	O5'-P-OP1	-9.50	97.15	105.70
1	A	2474	G	N3-C2-N2	-9.50	113.25	119.90
1	A	500	A	C4-N9-C1'	9.50	143.40	126.30
1	A	2411	A	C2-N3-C4	-9.50	105.85	110.60
1	A	352	A	N9-C4-C5	9.48	109.59	105.80
1	A	1040	A	C6-C5-N7	-9.48	125.66	132.30
1	A	490	C	C4-C5-C6	-9.48	112.66	117.40
1	A	961	G	C4-N9-C1'	9.48	138.82	126.50
1	A	2655	U	N1-C1'-C2'	9.48	126.32	114.00
1	A	2045	A	OP1-P-OP2	-9.48	105.39	119.60
1	A	893	G	O4'-C1'-N9	9.47	115.78	108.20
1	A	1011	U	N1-C2-O2	9.47	129.43	122.80
1	A	1083	G	C8-N9-C4	-9.47	102.61	106.40
1	A	2813	U	O5'-P-OP1	-9.47	97.17	105.70
1	A	1036	C	N1-C2-O2	-9.47	113.22	118.90
1	A	721	A	C2-N3-C4	-9.47	105.87	110.60
1	A	2429	U	C6-N1-C2	-9.47	115.32	121.00
1	A	1274	G	C2-N3-C4	9.47	116.63	111.90
1	A	1367	C	C5-C6-N1	9.47	125.73	121.00
1	A	2701	G	N3-C4-N9	-9.46	120.32	126.00
1	A	2803	A	N3-C4-C5	-9.46	120.17	126.80
1	A	22	C	C2-N3-C4	9.46	124.63	119.90
1	A	650	U	N1-C1'-C2'	9.46	126.30	114.00
1	A	2052	C	N3-C2-O2	-9.46	115.28	121.90
1	A	2091	C	O5'-P-OP1	-9.46	97.19	105.70
1	A	267	G	N3-C4-N9	9.46	131.68	126.00
1	A	373	A	C6-N1-C2	-9.46	112.92	118.60
1	A	571	A	N3-C4-N9	-9.46	119.84	127.40
1	A	2056	G	C4-C5-N7	9.46	114.58	110.80
1	A	210	A	N3-C4-C5	-9.45	120.19	126.80
1	A	584	G	N1-C2-N2	-9.45	107.70	116.20
1	A	1284	A	N1-C2-N3	-9.45	124.58	129.30
1	A	1040	A	N9-C4-C5	-9.45	102.02	105.80
1	A	1072	A	N7-C8-N9	9.45	118.52	113.80
1	A	1073	A	C4-N9-C1'	9.45	143.30	126.30
1	A	2274	A	C5-N7-C8	-9.45	99.18	103.90
1	A	1175	G	O4'-C1'-N9	-9.44	100.65	108.20
1	A	1040	A	N7-C8-N9	9.44	118.52	113.80
1	A	1651	C	C5-C4-N4	9.44	126.81	120.20
1	A	2597	G	N1-C6-O6	9.44	125.56	119.90
1	A	2645	G	C4-C5-N7	9.44	114.58	110.80
1	A	96	G	N9-C4-C5	-9.43	101.63	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	470	G	N3-C2-N2	-9.43	113.30	119.90
1	A	2064	A	OP1-P-OP2	-9.43	105.45	119.60
1	A	627	C	C5'-C4'-O4'	9.43	120.41	109.10
1	A	1067	U	N3-C4-O4	9.43	126.00	119.40
1	A	1178	C	C5-C6-N1	-9.43	116.29	121.00
1	A	2380	G	N9-C4-C5	-9.43	101.63	105.40
1	A	1067	U	C6-N1-C2	-9.43	115.34	121.00
1	A	354	A	C5-N7-C8	-9.42	99.19	103.90
1	A	2604	A	C5-C6-N6	9.42	131.24	123.70
1	A	1289	A	O5'-P-OP1	-9.42	97.22	105.70
1	A	37	C	C6-N1-C1'	-9.42	109.50	120.80
1	A	378	C	C5-C6-N1	9.42	125.71	121.00
1	A	902	A	N3-C4-C5	-9.42	120.21	126.80
1	A	948	U	C2-N1-C1'	9.42	129.00	117.70
1	A	2906	G	N3-C4-N9	9.42	131.65	126.00
1	A	354	A	C6-C5-N7	-9.41	125.71	132.30
1	A	1288	G	C6-N1-C2	-9.41	119.45	125.10
1	A	582	G	N1-C6-O6	-9.41	114.25	119.90
1	A	990	G	C4-C5-C6	9.41	124.45	118.80
1	A	17	G	C5-N7-C8	-9.41	99.60	104.30
1	A	2661	A	C2-N3-C4	9.40	115.30	110.60
1	A	2275	C	N1-C2-O2	9.40	124.54	118.90
1	A	2309	G	C6-C5-N7	9.40	136.04	130.40
1	A	648	G	C4-N9-C1'	9.39	138.71	126.50
1	A	2797	C	C4-C5-C6	-9.39	112.70	117.40
1	A	1176	U	O5'-P-OP2	-9.39	97.25	105.70
1	A	903	G	N3-C4-N9	9.39	131.63	126.00
1	A	2905	C	C5-C6-N1	9.39	125.69	121.00
1	A	2029	G	C4-C5-N7	-9.39	107.05	110.80
1	A	1198	G	C8-N9-C1'	-9.38	114.80	127.00
1	A	354	A	N1-C6-N6	9.38	124.23	118.60
1	A	2018	U	C5-C4-O4	9.38	131.53	125.90
1	A	370	G	C4-C5-N7	9.38	114.55	110.80
1	A	1651	C	C6-N1-C2	-9.38	116.55	120.30
1	A	731	U	O5'-P-OP1	-9.38	97.26	105.70
1	A	533	C	C5-C6-N1	9.37	125.69	121.00
1	A	2249	G	C4-N9-C1'	9.38	138.69	126.50
1	A	345	C	C6-N1-C2	9.37	124.05	120.30
1	A	351	G	C8-N9-C4	-9.37	102.65	106.40
1	A	445	G	C5-C6-O6	9.37	134.22	128.60
1	A	863	G	N1-C6-O6	9.37	125.52	119.90
1	A	993	C	N1-C2-O2	9.37	124.52	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1231	A	C4-C5-N7	9.37	115.39	110.70
1	A	578	G	C8-N9-C4	-9.37	102.65	106.40
1	A	868	A	N7-C8-N9	9.37	118.48	113.80
1	A	1368	C	C2-N1-C1'	9.37	129.10	118.80
1	A	2411	A	C5-N7-C8	-9.37	99.22	103.90
1	A	2805	A	N9-C4-C5	9.37	109.55	105.80
1	A	1654	A	N7-C8-N9	9.36	118.48	113.80
1	A	1183	G	C6-C5-N7	-9.36	124.78	130.40
1	A	1953	U	N3-C2-O2	-9.36	115.65	122.20
1	A	2460	A	C5-N7-C8	-9.36	99.22	103.90
1	A	2806	U	C2-N1-C1'	9.36	128.93	117.70
1	A	2840	A	N7-C8-N9	9.36	118.48	113.80
1	A	643	G	C4-C5-C6	9.36	124.41	118.80
1	A	2092	C	N3-C4-C5	-9.36	118.16	121.90
1	A	1599	G	N1-C2-N2	9.35	124.62	116.20
1	A	1232	G	C4-C5-N7	9.35	114.54	110.80
1	A	2032	A	C5-N7-C8	-9.35	99.22	103.90
1	A	2524	A	N1-C6-N6	-9.35	112.99	118.60
1	A	1232	G	N3-C2-N2	9.35	126.44	119.90
1	A	68	A	N3-C4-C5	9.34	133.34	126.80
1	A	69	C	O4'-C1'-N1	9.34	115.67	108.20
1	A	1230	G	C4-C5-N7	9.34	114.54	110.80
1	A	2083	G	C4-C5-C6	9.34	124.41	118.80
1	A	582	G	O5'-P-OP2	9.33	121.90	110.70
1	A	2792	A	C5-C6-N6	-9.33	116.24	123.70
1	A	2663	U	OP1-P-OP2	-9.33	105.61	119.60
1	A	2032	A	C4-C5-N7	9.33	115.36	110.70
1	A	2450	U	O4'-C1'-N1	9.33	115.66	108.20
1	A	1044	A	C4-N9-C1'	9.32	143.07	126.30
1	A	2550	G	N1-C2-N2	-9.32	107.81	116.20
1	A	2439	A	C4-C5-N7	9.32	115.36	110.70
1	A	703	A	O5'-P-OP2	9.31	121.88	110.70
1	A	1061	G	N9-C4-C5	9.31	109.12	105.40
1	A	198	A	C6-C5-N7	9.31	138.82	132.30
1	A	643	G	C8-N9-C4	-9.31	102.68	106.40
1	A	1305	U	N1-C2-O2	9.31	129.32	122.80
1	A	2520	U	N3-C4-O4	-9.31	112.89	119.40
1	A	345	C	C5-C6-N1	-9.30	116.35	121.00
1	A	562	C	O5'-P-OP2	-9.30	97.33	105.70
1	A	2845	G	N1-C2-N3	9.30	129.48	123.90
1	A	370	G	C5-C6-O6	-9.30	123.02	128.60
1	A	519	G	N9-C4-C5	9.30	109.12	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	774	G	N1-C6-O6	-9.30	114.32	119.90
1	A	373	A	C5-N7-C8	9.30	108.55	103.90
1	A	864	A	N3-C4-N9	-9.29	119.97	127.40
1	A	2369	C	C2-N1-C1'	9.29	129.02	118.80
1	A	2527	U	O4'-C1'-N1	9.29	115.63	108.20
1	A	1801	C	C6-N1-C2	-9.28	116.59	120.30
1	A	2446	U	N3-C2-O2	-9.28	115.70	122.20
1	A	530	C	N1-C2-O2	9.28	124.47	118.90
1	A	68	A	N3-C4-N9	-9.27	119.98	127.40
1	A	368	A	C5-N7-C8	-9.27	99.26	103.90
1	A	471	G	N3-C2-N2	-9.27	113.41	119.90
1	A	864	A	C6-N1-C2	-9.27	113.04	118.60
1	A	917	U	N3-C2-O2	-9.27	115.71	122.20
1	A	995	U	N3-C4-C5	9.27	120.16	114.60
1	A	1250	G	N9-C4-C5	-9.27	101.69	105.40
1	A	2047	A	C5-C6-N6	-9.27	116.28	123.70
1	A	23	G	C6-C5-N7	-9.27	124.84	130.40
1	A	595	G	O5'-P-OP2	9.27	121.82	110.70
1	A	633	A	N3-C4-N9	9.27	134.81	127.40
1	A	2457	A	OP1-P-OP2	-9.27	105.70	119.60
1	A	493	A	C5-C6-N6	-9.27	116.29	123.70
1	A	616	G	C6-C5-N7	9.27	135.96	130.40
1	A	2636	U	N1-C2-O2	9.27	129.29	122.80
1	A	1953	U	N1-C2-O2	9.26	129.28	122.80
1	A	2439	A	N9-C4-C5	-9.26	102.09	105.80
1	A	600	U	P-O3'-C3'	9.26	130.81	119.70
1	A	1165	C	C4-C5-C6	-9.26	112.77	117.40
1	A	825	G	N9-C4-C5	-9.26	101.70	105.40
1	A	1006	G	C8-N9-C4	-9.26	102.70	106.40
1	A	36	G	C4-C5-N7	9.26	114.50	110.80
1	A	200	A	C5-N7-C8	-9.26	99.27	103.90
1	A	2546	U	C2-N1-C1'	9.26	128.81	117.70
1	A	527	G	N9-C4-C5	-9.26	101.70	105.40
1	A	1016	G	N1-C2-N2	-9.25	107.87	116.20
1	A	1343	U	N1-C2-O2	9.25	129.28	122.80
1	A	2037	G	C8-N9-C1'	-9.25	114.97	127.00
1	A	2090	C	N3-C4-N4	-9.25	111.52	118.00
1	A	576	U	C2-N1-C1'	9.25	128.80	117.70
1	A	2018	U	N3-C4-O4	-9.25	112.93	119.40
1	A	2028	A	C5-C6-N1	9.25	122.33	117.70
1	A	424	C	N1-C2-N3	9.25	125.67	119.20
1	A	498	G	N1-C6-O6	-9.24	114.36	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	863	G	N3-C2-N2	9.24	126.37	119.90
1	A	900	G	C6-C5-N7	9.24	135.94	130.40
1	A	354	A	C5-C6-N6	-9.24	116.31	123.70
1	A	2076	A	C8-N9-C4	-9.23	102.11	105.80
1	A	1694	A	N1-C2-N3	-9.23	124.68	129.30
1	A	2488	C	C2-N3-C4	9.23	124.52	119.90
1	A	14	A	N7-C8-N9	9.23	118.42	113.80
1	A	984	G	C5-N7-C8	-9.23	99.68	104.30
1	A	2551	G	C4-N9-C1'	9.23	138.50	126.50
1	A	1072	A	C4-C5-C6	9.23	121.61	117.00
1	A	2056	G	C5-N7-C8	-9.23	99.69	104.30
1	A	378	C	C5-C4-N4	-9.23	113.74	120.20
1	A	911	A	O4'-C1'-N9	-9.23	100.82	108.20
1	A	1012	G	N1-C6-O6	9.23	125.44	119.90
1	A	1599	G	N9-C4-C5	9.23	109.09	105.40
1	A	2570	G	C4-N9-C1'	9.22	138.49	126.50
1	A	2636	U	N3-C2-O2	-9.22	115.75	122.20
1	A	36	G	N3-C2-N2	9.22	126.35	119.90
1	A	210	A	C5-C6-N6	-9.22	116.33	123.70
31	a	1473	C	C5-C6-N1	9.22	125.61	121.00
1	A	2347	A	O4'-C1'-N9	9.22	115.57	108.20
1	A	633	A	N1-C6-N6	-9.21	113.07	118.60
1	A	910	C	N3-C2-O2	-9.21	115.45	121.90
1	A	1429	G	C4-C5-N7	9.21	114.48	110.80
1	A	2303	G	C5-C6-N1	9.21	116.11	111.50
1	A	1254	C	C6-N1-C2	-9.21	116.62	120.30
1	A	2249	G	N7-C8-N9	9.21	117.70	113.10
1	A	735	C	C6-N1-C2	-9.21	116.62	120.30
1	A	1066	G	C6-C5-N7	-9.21	124.88	130.40
1	A	2090	C	P-O3'-C3'	9.21	130.75	119.70
1	A	2486	A	N1-C2-N3	9.21	133.90	129.30
1	A	1002	U	N3-C2-O2	-9.20	115.76	122.20
1	A	1188	A	C4-C5-C6	9.20	121.60	117.00
1	A	2887	G	C6-N1-C2	-9.20	119.58	125.10
1	A	2011	U	N1-C2-N3	9.20	120.42	114.90
1	A	1369	G	N1-C2-N2	-9.20	107.92	116.20
1	A	1000	G	N1-C2-N2	-9.19	107.93	116.20
1	A	1264	A	N9-C4-C5	9.19	109.48	105.80
1	A	1254	C	C5-C4-N4	-9.19	113.77	120.20
1	A	2077	C	N1-C2-O2	9.19	124.41	118.90
1	A	2647	C	C5-C6-N1	9.19	125.59	121.00
1	A	1254	C	C2-N1-C1'	9.18	128.90	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	958	U	N1-C2-N3	9.18	120.41	114.90
1	A	1816	A	O4'-C1'-N9	9.18	115.55	108.20
1	A	294	G	N7-C8-N9	9.18	117.69	113.10
1	A	380	U	N1-C2-O2	9.18	129.22	122.80
1	A	1321	A	C6-C5-N7	9.18	138.72	132.30
1	A	2044	C	OP2-P-O3'	9.18	125.39	105.20
1	A	1029	C	C6-N1-C1'	-9.17	109.79	120.80
1	A	2249	G	O4'-C1'-N9	9.17	115.54	108.20
1	A	2418	G	N9-C1'-C2'	9.17	125.92	114.00
1	A	2458	U	C4-C5-C6	9.17	125.20	119.70
1	A	2397	G	C5-N7-C8	9.17	108.89	104.30
1	A	692	G	C6-C5-N7	-9.17	124.90	130.40
1	A	2396	A	C8-N9-C1'	-9.17	111.20	127.70
1	A	1268	C	C4-C5-C6	-9.16	112.82	117.40
1	A	2309	G	C6-N1-C2	-9.16	119.60	125.10
1	A	2394	G	C8-N9-C4	-9.16	102.73	106.40
1	A	2229	C	C6-N1-C2	-9.16	116.64	120.30
1	A	2805	A	N1-C6-N6	-9.16	113.10	118.60
1	A	2668	A	N7-C8-N9	9.16	118.38	113.80
1	A	22	C	C6-N1-C2	-9.16	116.64	120.30
1	A	1261	G	N1-C2-N3	-9.16	118.41	123.90
1	A	616	G	C2-N3-C4	9.15	116.47	111.90
1	A	1230	G	N3-C4-C5	-9.15	124.02	128.60
1	A	1698	A	OP1-P-OP2	-9.15	105.87	119.60
1	A	2525	C	C2-N1-C1'	9.15	128.87	118.80
1	A	240	C	C2-N1-C1'	9.15	128.86	118.80
1	A	381	G	C8-N9-C4	-9.15	102.74	106.40
1	A	2318	U	N1-C2-N3	9.15	120.39	114.90
1	A	872	U	O5'-P-OP1	-9.15	97.47	105.70
1	A	366	G	C5-C6-O6	9.14	134.09	128.60
1	A	643	G	C5-C6-O6	9.14	134.09	128.60
1	A	2047	A	N3-C4-N9	9.14	134.72	127.40
1	A	2887	G	N1-C2-N2	-9.14	107.97	116.20
1	A	2023	C	P-O3'-C3'	9.14	130.67	119.70
1	A	1227	U	C2-N3-C4	-9.14	121.52	127.00
1	A	2903	A	C5-N7-C8	-9.14	99.33	103.90
1	A	638	U	N1-C2-O2	9.13	129.19	122.80
1	A	360	A	C6-C5-N7	9.13	138.69	132.30
1	A	35	G	C8-N9-C4	-9.13	102.75	106.40
1	A	74	U	N1-C2-O2	9.13	129.19	122.80
1	A	2471	G	C6-C5-N7	-9.13	124.92	130.40
1	A	582	G	OP1-P-OP2	-9.13	105.91	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1699	A	C5-C6-N6	9.12	130.99	123.70
1	A	1274	G	C8-N9-C1'	-9.12	115.15	127.00
1	A	1700	C	N1-C2-O2	9.11	124.37	118.90
1	A	2685	C	N1-C2-O2	9.11	124.37	118.90
1	A	2902	A	N3-C4-N9	9.11	134.69	127.40
1	A	1251	A	O5'-P-OP1	9.11	121.63	110.70
1	A	2283	G	C4-C5-N7	9.11	114.44	110.80
1	A	1240	U	N1-C1'-C2'	9.11	125.84	114.00
1	A	2654	G	N3-C4-C5	-9.11	124.05	128.60
1	A	272	C	N3-C2-O2	-9.11	115.53	121.90
1	A	439	U	C2-N1-C1'	9.10	128.62	117.70
1	A	1236	G	C5-C6-N1	-9.10	106.95	111.50
1	A	2056	G	C5-C6-O6	9.10	134.06	128.60
1	A	2854	A	C5-C6-N1	9.10	122.25	117.70
1	A	284	C	C2-N1-C1'	9.10	128.81	118.80
1	A	360	A	C6-N1-C2	-9.10	113.14	118.60
1	A	1189	C	O5'-P-OP2	-9.09	97.52	105.70
1	A	1605	A	O4'-C1'-N9	9.09	115.47	108.20
1	A	2868	G	O5'-P-OP2	9.09	121.61	110.70
1	A	484	U	N3-C2-O2	-9.09	115.84	122.20
1	A	2392	G	N9-C4-C5	-9.09	101.77	105.40
1	A	2653	C	N1-C2-N3	9.09	125.56	119.20
1	A	2095	U	N1-C2-O2	9.09	129.16	122.80
31	a	1473	C	C6-N1-C2	-9.09	116.67	120.30
1	A	583	A	N9-C4-C5	9.08	109.43	105.80
1	A	1360	G	C8-N9-C4	-9.08	102.77	106.40
1	A	2042	A	C5-N7-C8	-9.08	99.36	103.90
1	A	627	C	C6-N1-C2	-9.08	116.67	120.30
1	A	630	G	N3-C2-N2	-9.08	113.55	119.90
1	A	1042	C	N1-C2-O2	9.08	124.35	118.90
1	A	1705	G	C4-C5-N7	9.08	114.43	110.80
1	A	718	C	C6-N1-C2	-9.08	116.67	120.30
1	A	2516	G	N7-C8-N9	-9.08	108.56	113.10
1	A	1205	U	N1-C2-N3	9.07	120.34	114.90
1	A	868	A	O4'-C1'-N9	9.07	115.46	108.20
1	A	1054	A	N3-C4-C5	-9.07	120.45	126.80
1	A	1194	U	C6-N1-C2	-9.07	115.56	121.00
1	A	2313	A	N7-C8-N9	-9.07	109.27	113.80
1	A	2474	G	OP1-P-O3'	9.07	125.15	105.20
1	A	2792	A	C4-C5-N7	9.07	115.23	110.70
1	A	284	C	N3-C2-O2	-9.06	115.56	121.90
1	A	2596	G	N1-C6-O6	-9.06	114.47	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	262	G	N3-C4-N9	9.05	131.43	126.00
1	A	2368	G	N1-C2-N3	9.05	129.33	123.90
1	A	2434	A	C4-C5-N7	9.05	115.23	110.70
1	A	534	G	C6-C5-N7	-9.05	124.97	130.40
1	A	2569	A	N1-C6-N6	9.05	124.03	118.60
1	A	630	G	C4-C5-C6	9.05	124.23	118.80
1	A	383	A	C2-N3-C4	9.05	115.12	110.60
1	A	883	C	C4-C5-C6	-9.05	112.88	117.40
1	A	2027	G	C6-C5-N7	9.05	135.83	130.40
1	A	119	U	C5-C6-N1	9.05	127.22	122.70
1	A	2352	G	N1-C6-O6	-9.05	114.47	119.90
1	A	1191	U	N3-C2-O2	-9.04	115.87	122.20
1	A	1069	G	C6-C5-N7	-9.04	124.97	130.40
1	A	2475	A	C8-N9-C4	-9.04	102.18	105.80
1	A	558	A	O4'-C1'-N9	9.04	115.43	108.20
1	A	572	C	C5-C6-N1	9.03	125.52	121.00
1	A	859	C	O4'-C1'-N1	9.04	115.43	108.20
1	A	965	G	C6-C5-N7	9.03	135.82	130.40
1	A	1187	A	C5-N7-C8	-9.03	99.38	103.90
1	A	2303	G	C6-N1-C2	-9.03	119.68	125.10
1	A	598	G	N1-C2-N2	-9.03	108.08	116.20
1	A	630	G	C4-C5-N7	-9.03	107.19	110.80
1	A	632	U	C4-C5-C6	9.03	125.12	119.70
1	A	872	U	P-O3'-C3'	9.03	130.53	119.70
1	A	644	C	C1'-O4'-C4'	-9.03	102.68	109.90
1	A	2394	G	N3-C4-C5	9.03	133.11	128.60
1	A	2577	G	C5-C6-N1	-9.02	106.99	111.50
1	A	2584	G	C8-N9-C4	-9.02	102.79	106.40
1	A	1913	U	C2-N1-C1'	9.02	128.53	117.70
1	A	2549	U	OP2-P-O3'	9.02	125.05	105.20
1	A	2726	C	N3-C4-C5	9.02	125.51	121.90
1	A	2704	A	C5-C6-N1	-9.02	113.19	117.70
1	A	1035	C	C5-C6-N1	9.01	125.51	121.00
1	A	223	G	C8-N9-C4	-9.01	102.80	106.40
1	A	1187	A	N3-C4-C5	-9.00	120.50	126.80
1	A	2077	C	C6-N1-C1'	-9.00	110.00	120.80
1	A	65	A	C4-C5-N7	9.00	115.20	110.70
1	A	1697	G	N3-C4-C5	9.00	133.10	128.60
1	A	1706	U	N1-C2-N3	9.00	120.30	114.90
1	A	2656	A	N1-C6-N6	-9.00	113.20	118.60
1	A	2443	C	C5-C6-N1	8.99	125.50	121.00
1	A	27	G	C5-N7-C8	8.99	108.80	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	597	U	C5-C6-N1	8.99	127.19	122.70
1	A	903	G	C5-C6-O6	8.99	134.00	128.60
1	A	2274	A	O5'-P-OP2	-8.99	97.61	105.70
1	A	2517	G	N1-C2-N2	8.99	124.29	116.20
1	A	908	A	C8-N9-C1'	-8.99	111.52	127.70
1	A	241	C	C5-C6-N1	8.99	125.49	121.00
1	A	2798	C	O5'-P-OP1	-8.99	97.61	105.70
1	A	2646	U	N1-C2-O2	8.98	129.09	122.80
1	A	2011	U	C2-N3-C4	-8.98	121.61	127.00
1	A	1187	A	C4-C5-C6	8.98	121.49	117.00
1	A	490	C	OP1-P-OP2	-8.98	106.13	119.60
1	A	2284	U	C5-C6-N1	-8.97	118.21	122.70
1	A	470	G	O4'-C1'-N9	8.97	115.38	108.20
1	A	1047	G	N7-C8-N9	-8.97	108.61	113.10
1	A	2116	U	N3-C2-O2	-8.97	115.92	122.20
1	A	492	G	OP1-P-O3'	8.97	124.93	105.20
1	A	27	G	N7-C8-N9	8.96	117.58	113.10
1	A	781	C	C6-N1-C2	-8.97	116.71	120.30
1	A	909	G	C8-N9-C1'	-8.97	115.34	127.00
1	A	1223	A	C2-N3-C4	8.96	115.08	110.60
1	A	1239	C	C5-C4-N4	8.96	126.48	120.20
1	A	493	A	C4-C5-C6	-8.96	112.52	117.00
1	A	2914	A	C6-C5-N7	-8.96	126.03	132.30
1	A	1083	G	C5-C6-O6	8.96	133.98	128.60
1	A	633	A	OP1-P-OP2	-8.96	106.16	119.60
1	A	2047	A	C4-N9-C1'	8.96	142.42	126.30
1	A	375	A	N1-C6-N6	-8.96	113.23	118.60
1	A	25	U	C2-N3-C4	-8.95	121.63	127.00
1	A	615	A	P-O3'-C3'	8.95	130.44	119.70
1	A	2647	C	C6-N1-C2	-8.95	116.72	120.30
1	A	714	G	N1-C2-N2	-8.95	108.15	116.20
1	A	2830	A	N1-C6-N6	8.94	123.97	118.60
1	A	2859	G	C8-N9-C4	-8.94	102.82	106.40
1	A	30	G	N9-C4-C5	8.94	108.97	105.40
1	A	665	G	N3-C4-C5	-8.94	124.13	128.60
1	A	892	U	C6-N1-C1'	8.94	133.71	121.20
1	A	1275	A	C5-N7-C8	-8.94	99.43	103.90
1	A	383	A	O5'-P-OP1	-8.94	97.66	105.70
1	A	1028	G	C4-N9-C1'	8.94	138.12	126.50
1	A	2551	G	N3-C4-N9	8.94	131.36	126.00
1	A	1953	U	C2-N1-C1'	8.93	128.42	117.70
1	A	563	G	OP1-P-OP2	-8.93	106.20	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	903	G	C6-C5-N7	8.93	135.76	130.40
1	A	2894	C	C2-N1-C1'	8.93	128.63	118.80
1	A	866	A	N1-C6-N6	-8.93	113.24	118.60
1	A	1233	A	N9-C4-C5	-8.93	102.23	105.80
2	B	2	C	C5-C6-N1	8.93	125.47	121.00
1	A	2322	C	C4-C5-C6	-8.93	112.94	117.40
1	A	2440	G	C6-C5-N7	-8.93	125.04	130.40
1	A	809	A	C5-N7-C8	-8.92	99.44	103.90
1	A	494	U	N3-C4-C5	-8.92	109.25	114.60
1	A	1055	A	C8-N9-C4	-8.92	102.23	105.80
1	A	1263	A	OP2-P-O3'	8.92	124.83	105.20
1	A	2091	C	O5'-P-OP2	-8.92	97.67	105.70
1	A	2661	A	N3-C4-C5	-8.92	120.56	126.80
1	A	2662	U	N1-C2-O2	8.92	129.04	122.80
1	A	500	A	N3-C4-N9	8.92	134.53	127.40
1	A	2081	A	O4'-C1'-N9	8.92	115.33	108.20
1	A	198	A	C8-N9-C1'	8.91	143.74	127.70
1	A	237	U	C6-N1-C1'	-8.91	108.72	121.20
1	A	229	A	N9-C4-C5	-8.91	102.24	105.80
1	A	604	G	C4-C5-N7	8.91	114.36	110.80
1	A	2088	G	C6-N1-C2	-8.91	119.75	125.10
1	A	2442	G	N3-C2-N2	8.91	126.14	119.90
1	A	1184	C	C4-C5-C6	-8.91	112.95	117.40
1	A	2053	U	O4'-C1'-N1	8.91	115.33	108.20
1	A	2899	A	N7-C8-N9	8.91	118.25	113.80
1	A	1980	A	C6-C5-N7	-8.90	126.07	132.30
1	A	2031	G	N3-C2-N2	-8.90	113.67	119.90
1	A	496	G	C4-C5-C6	8.90	124.14	118.80
1	A	902	A	C4-C5-N7	-8.90	106.25	110.70
1	A	1601	U	C5-C4-O4	8.90	131.24	125.90
1	A	370	G	N3-C4-N9	8.90	131.34	126.00
1	A	1000	G	C8-N9-C4	-8.90	102.84	106.40
1	A	1051	C	N1-C1'-C2'	8.89	125.56	114.00
1	A	599	A	N3-C4-N9	8.89	134.51	127.40
1	A	1230	G	C5-N7-C8	-8.89	99.85	104.30
1	A	614	U	C5-C4-O4	-8.89	120.56	125.90
1	A	1370	C	O5'-P-OP1	-8.89	97.70	105.70
31	a	1155	C	C6-N1-C2	-8.89	116.75	120.30
1	A	218	G	N9-C4-C5	8.89	108.95	105.40
1	A	632	U	N3-C2-O2	-8.88	115.98	122.20
1	A	660	A	C8-N9-C4	-8.88	102.25	105.80
1	A	1263	A	O5'-P-OP2	-8.88	97.71	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	427	A	C4-N9-C1'	-8.88	110.32	126.30
1	A	490	C	C2-N1-C1'	-8.88	109.04	118.80
1	A	863	G	C5-C6-O6	-8.88	123.28	128.60
1	A	1027	A	P-O3'-C3'	8.88	130.35	119.70
1	A	2326	G	N3-C4-N9	8.88	131.33	126.00
2	B	76	A	N7-C8-N9	8.88	118.24	113.80
1	A	2379	A	O5'-P-OP2	-8.87	97.72	105.70
1	A	426	G	C4-N9-C1'	-8.87	114.97	126.50
1	A	2080	G	N3-C4-N9	-8.87	120.68	126.00
1	A	479	C	C2-N3-C4	-8.87	115.47	119.90
1	A	643	G	N9-C4-C5	8.87	108.95	105.40
1	A	893	G	C8-N9-C4	-8.87	102.85	106.40
1	A	1043	U	O4'-C1'-N1	8.87	115.29	108.20
1	A	2742	C	C6-N1-C2	-8.87	116.75	120.30
1	A	906	A	C5-C6-N1	8.87	122.13	117.70
1	A	595	G	N3-C4-N9	-8.86	120.68	126.00
1	A	2052	C	N1-C1'-C2'	-8.86	102.25	112.00
1	A	2642	U	C2-N1-C1'	8.86	128.33	117.70
1	A	104	C	C2-N1-C1'	8.86	128.54	118.80
1	A	1980	A	O4'-C1'-N9	8.86	115.29	108.20
1	A	211	C	C5-C6-N1	8.86	125.43	121.00
1	A	1694	A	C4-C5-N7	8.86	115.13	110.70
1	A	2310	C	N3-C2-O2	-8.86	115.70	121.90
1	A	444	C	N3-C2-O2	-8.85	115.70	121.90
1	A	1854	U	N1-C2-O2	8.85	129.00	122.80
1	A	626	G	N9-C4-C5	-8.85	101.86	105.40
1	A	1351	C	C6-N1-C2	-8.85	116.76	120.30
1	A	548	A	N1-C6-N6	8.84	123.91	118.60
1	A	2363	A	N1-C6-N6	-8.84	113.29	118.60
1	A	990	G	C5-N7-C8	-8.84	99.88	104.30
1	A	2073	G	N1-C6-O6	-8.84	114.60	119.90
2	B	79	C	C6-N1-C2	-8.84	116.77	120.30
1	A	416	G	C4-C5-N7	-8.83	107.27	110.80
1	A	2652	G	C5-C6-N1	8.83	115.92	111.50
1	A	2461	A	O4'-C1'-N9	8.83	115.27	108.20
1	A	648	G	O5'-P-OP2	8.83	121.29	110.70
1	A	242	U	N3-C2-O2	-8.82	116.02	122.20
1	A	1322	G	N3-C4-C5	-8.82	124.19	128.60
1	A	644	C	N1-C2-N3	8.82	125.38	119.20
1	A	874	A	N9-C4-C5	8.82	109.33	105.80
1	A	2471	G	C4-N9-C1'	-8.82	115.03	126.50
1	A	2803	A	O4'-C1'-N9	-8.82	101.14	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	290	U	C5-C6-N1	8.82	127.11	122.70
1	A	996	G	C5-C6-N1	-8.82	107.09	111.50
1	A	355	G	N9-C4-C5	-8.81	101.88	105.40
1	A	53	A	C5-C6-N1	8.81	122.11	117.70
1	A	201	C	C6-N1-C2	-8.81	116.78	120.30
1	A	377	U	O5'-P-OP2	-8.81	97.77	105.70
2	B	87	C	C6-N1-C2	-8.81	116.78	120.30
1	A	267	G	N1-C2-N2	-8.80	108.28	116.20
1	A	2595	C	C6-N1-C2	-8.80	116.78	120.30
1	A	1189	C	N1-C2-O2	8.80	124.18	118.90
1	A	909	G	C4-N9-C1'	8.80	137.94	126.50
1	A	1370	C	N3-C4-C5	8.80	125.42	121.90
1	A	2380	G	C4-C5-C6	8.80	124.08	118.80
1	A	2518	U	C6-N1-C2	-8.80	115.72	121.00
31	a	530	C	N1-C2-O2	8.80	124.18	118.90
31	a	600	U	N1-C2-O2	8.80	128.96	122.80
1	A	65	A	C6-C5-N7	-8.80	126.14	132.30
1	A	2456	G	C4-C5-N7	-8.80	107.28	110.80
1	A	2840	A	C8-N9-C4	-8.80	102.28	105.80
1	A	1283	G	C4-N9-C1'	-8.79	115.07	126.50
1	A	479	C	C5-C6-N1	-8.79	116.60	121.00
1	A	541	G	N1-C6-O6	-8.79	114.62	119.90
31	a	1293	C	C6-N1-C2	-8.79	116.78	120.30
1	A	665	G	N3-C4-N9	8.79	131.27	126.00
1	A	471	G	C5-C6-O6	8.79	133.87	128.60
1	A	2478	A	C6-N1-C2	-8.79	113.33	118.60
31	a	637	A	N7-C8-N9	8.79	118.19	113.80
1	A	22	C	C4-C5-C6	-8.79	113.01	117.40
1	A	962	A	C4-C5-N7	8.78	115.09	110.70
1	A	975	U	N1-C2-N3	8.78	120.17	114.90
1	A	2792	A	C5-C6-N1	8.78	122.09	117.70
1	A	1168	C	N1-C2-O2	8.78	124.17	118.90
1	A	563	G	C5-C6-N1	8.78	115.89	111.50
1	A	229	A	C5-N7-C8	-8.77	99.51	103.90
1	A	867	U	OP1-P-OP2	8.77	132.76	119.60
1	A	1296	C	N1-C2-O2	-8.77	113.64	118.90
1	A	890	G	N1-C2-N2	-8.77	108.31	116.20
1	A	117	A	C5-C6-N6	-8.77	116.69	123.70
1	A	1250	G	C8-N9-C4	8.77	109.91	106.40
1	A	2273	G	N3-C2-N2	8.77	126.04	119.90
1	A	2658	G	C5-C6-O6	8.77	133.86	128.60
1	A	1005	G	C8-N9-C4	-8.76	102.89	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	340	C	C2-N1-C1'	8.76	128.44	118.80
1	A	2058	A	C5-N7-C8	-8.76	99.52	103.90
1	A	1642	C	N3-C2-O2	-8.76	115.77	121.90
1	A	471	G	C6-C5-N7	8.76	135.65	130.40
1	A	2036	G	C5-C6-O6	8.76	133.85	128.60
1	A	2550	G	C5-C6-N1	8.76	115.88	111.50
1	A	1028	G	N1-C6-O6	-8.75	114.65	119.90
1	A	2447	C	C6-N1-C2	-8.75	116.80	120.30
1	A	582	G	O4'-C1'-N9	8.75	115.20	108.20
1	A	2652	G	N1-C6-O6	-8.75	114.65	119.90
1	A	218	G	N3-C4-C5	-8.74	124.23	128.60
1	A	1081	G	N1-C6-O6	-8.74	114.65	119.90
1	A	238	U	N3-C4-O4	8.73	125.51	119.40
1	A	1654	A	C4-C5-N7	8.73	115.07	110.70
1	A	1033	G	C5-C6-O6	-8.73	123.36	128.60
1	A	521	U	C5-C4-O4	-8.73	120.66	125.90
1	A	2056	G	C5-C6-N1	-8.73	107.14	111.50
1	A	1010	G	N3-C4-C5	8.73	132.96	128.60
1	A	1258	A	OP2-P-O3'	8.73	124.40	105.20
1	A	1324	A	N3-C4-C5	-8.73	120.69	126.80
31	a	193	C	O4'-C1'-N1	8.73	115.18	108.20
1	A	211	C	C6-N1-C1'	8.72	131.27	120.80
1	A	648	G	C8-N9-C1'	-8.72	115.66	127.00
1	A	410	G	C6-C5-N7	-8.72	125.17	130.40
1	A	2063	C	O5'-P-OP1	-8.72	97.85	105.70
1	A	1382	C	C6-N1-C2	-8.72	116.81	120.30
1	A	2593	A	N1-C6-N6	-8.72	113.37	118.60
1	A	2607	U	N3-C2-O2	-8.72	116.10	122.20
1	A	2472	G	N3-C2-N2	-8.71	113.80	119.90
1	A	2898	U	C6-N1-C2	-8.71	115.77	121.00
1	A	1225	G	N3-C2-N2	-8.71	113.80	119.90
1	A	2595	C	N3-C2-O2	-8.71	115.80	121.90
1	A	1183	G	O5'-P-OP1	-8.71	97.86	105.70
1	A	666	A	N3-C4-C5	-8.71	120.70	126.80
1	A	1616	A	N1-C6-N6	-8.71	113.38	118.60
1	A	483	C	C6-N1-C2	-8.71	116.82	120.30
1	A	1365	G	O4'-C1'-N9	8.70	115.16	108.20
1	A	1370	C	C4-C5-C6	-8.71	113.05	117.40
1	A	366	G	O4'-C1'-N9	8.70	115.16	108.20
1	A	1352	C	N3-C4-N4	-8.70	111.91	118.00
1	A	1683	U	N3-C2-O2	-8.70	116.11	122.20
1	A	2391	C	O4'-C1'-N1	8.70	115.16	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2019	G	N1-C2-N3	8.70	129.12	123.90
1	A	1250	G	N3-C4-C5	-8.70	124.25	128.60
1	A	2397	G	N7-C8-N9	-8.70	108.75	113.10
1	A	2759	G	N7-C8-N9	8.70	117.45	113.10
1	A	479	C	N3-C2-O2	-8.69	115.81	121.90
31	a	55	C	C2-N1-C1'	8.69	128.36	118.80
31	a	970	U	C2-N1-C1'	8.69	128.13	117.70
1	A	412	U	N3-C2-O2	-8.69	116.12	122.20
1	A	620	G	N3-C2-N2	-8.69	113.82	119.90
1	A	1189	C	C2-N1-C1'	8.69	128.35	118.80
1	A	439	U	N3-C2-O2	-8.68	116.12	122.20
1	A	595	G	N1-C2-N3	8.68	129.11	123.90
1	A	1297	G	N1-C6-O6	8.68	125.11	119.90
1	A	2055	U	C2-N3-C4	-8.68	121.79	127.00
31	a	216	G	N3-C4-N9	8.68	131.21	126.00
1	A	1228	A	N9-C1'-C2'	-8.68	102.45	112.00
1	A	564	U	N3-C2-O2	-8.68	116.13	122.20
1	A	2018	U	N3-C2-O2	-8.68	116.13	122.20
1	A	425	G	C4-C5-C6	-8.68	113.59	118.80
1	A	650	U	C6-N1-C1'	-8.68	109.05	121.20
1	A	1004	A	C8-N9-C1'	8.68	143.32	127.70
1	A	883	C	O5'-P-OP1	-8.68	97.89	105.70
1	A	1062	U	OP1-P-O3'	8.68	124.29	105.20
1	A	1285	A	C4-C5-C6	-8.68	112.66	117.00
1	A	481	C	C6-N1-C2	-8.67	116.83	120.30
1	A	22	C	C2-N1-C1'	8.67	128.34	118.80
1	A	425	G	C4-N9-C1'	-8.67	115.23	126.50
1	A	1205	U	N3-C4-O4	-8.67	113.33	119.40
1	A	2284	U	C2-N3-C4	-8.67	121.80	127.00
1	A	490	C	N3-C4-N4	-8.67	111.93	118.00
1	A	341	G	N3-C4-N9	8.67	131.20	126.00
1	A	2603	G	C6-C5-N7	-8.67	125.20	130.40
1	A	377	U	C2-N3-C4	8.67	132.20	127.00
1	A	2025	A	N3-C4-N9	-8.67	120.47	127.40
1	A	2288	C	C6-N1-C2	-8.66	116.83	120.30
1	A	2396	A	C6-C5-N7	-8.66	126.24	132.30
1	A	2432	G	N3-C2-N2	-8.66	113.84	119.90
1	A	2081	A	C8-N9-C1'	8.66	143.28	127.70
1	A	120	G	C4-C5-N7	8.65	114.26	110.80
1	A	974	U	N1-C2-N3	8.65	120.09	114.90
1	A	1002	U	C6-N1-C1'	8.65	133.32	121.20
1	A	1297	G	OP1-P-OP2	-8.65	106.62	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2380	G	N1-C6-O6	8.65	125.09	119.90
31	a	1473	C	C2-N1-C1'	8.65	128.32	118.80
1	A	572	C	N1-C2-O2	8.65	124.09	118.90
1	A	2094	G	OP1-P-O3'	8.65	124.23	105.20
1	A	2578	C	C5-C6-N1	8.65	125.33	121.00
31	a	1155	C	C6-N1-C1'	-8.65	110.42	120.80
1	A	1802	U	N1-C2-O2	8.65	128.85	122.80
1	A	1994	C	C2-N1-C1'	8.65	128.31	118.80
1	A	2667	G	C5-C6-N1	8.65	115.82	111.50
1	A	1180	G	O5'-P-OP2	8.65	121.08	110.70
1	A	1002	U	C5-C4-O4	8.64	131.09	125.90
1	A	1361	G	C5-C6-N1	8.64	115.82	111.50
1	A	973	A	C5-N7-C8	-8.64	99.58	103.90
1	A	1079	U	N1-C2-N3	8.64	120.08	114.90
1	A	1369	G	C2-N3-C4	8.64	116.22	111.90
1	A	1706	U	C2-N3-C4	-8.64	121.81	127.00
1	A	2036	G	C2-N3-C4	-8.64	107.58	111.90
1	A	2036	G	N1-C6-O6	-8.64	114.72	119.90
1	A	2460	A	N3-C4-N9	8.64	134.31	127.40
1	A	458	A	C8-N9-C4	-8.64	102.34	105.80
1	A	97	C	N3-C2-O2	-8.63	115.86	121.90
1	A	974	U	C2-N3-C4	-8.63	121.82	127.00
1	A	2440	G	C8-N9-C1'	-8.63	115.78	127.00
1	A	2646	U	C5-C6-N1	-8.63	118.39	122.70
1	A	2654	G	C8-N9-C4	-8.63	102.95	106.40
1	A	805	G	OP1-P-O3'	8.63	124.18	105.20
1	A	1271	G	C6-C5-N7	8.63	135.58	130.40
1	A	2555	U	N3-C2-O2	-8.63	116.16	122.20
1	A	272	C	C6-N1-C2	-8.62	116.85	120.30
1	A	363	A	N3-C4-N9	8.62	134.30	127.40
1	A	1297	G	C2-N3-C4	-8.62	107.59	111.90
1	A	2054	G	O5'-P-OP2	-8.62	97.94	105.70
1	A	2740	A	N1-C6-N6	8.62	123.77	118.60
1	A	2364	G	C4-C5-N7	8.62	114.25	110.80
1	A	857	C	C2-N3-C4	-8.62	115.59	119.90
1	A	948	U	N3-C4-C5	-8.62	109.43	114.60
1	A	1266	G	C4-C5-N7	8.62	114.25	110.80
1	A	1370	C	O5'-P-OP2	-8.62	97.94	105.70
1	A	2438	A	N1-C6-N6	8.62	123.77	118.60
1	A	2850	G	C4-C5-N7	8.62	114.25	110.80
1	A	2899	A	N3-C4-C5	-8.62	120.77	126.80
1	A	635	G	N1-C6-O6	-8.61	114.73	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2453	A	OP2-P-O3'	8.61	124.15	105.20
1	A	1291	A	O5'-P-OP1	-8.61	97.95	105.70
1	A	2438	A	N9-C4-C5	-8.61	102.36	105.80
1	A	2554	C	C5-C6-N1	8.61	125.30	121.00
1	A	425	G	C5-C6-N1	8.60	115.80	111.50
1	A	641	A	O5'-P-OP1	-8.60	97.96	105.70
1	A	1240	U	C2-N1-C1'	8.60	128.02	117.70
1	A	1294	G	N1-C6-O6	-8.60	114.74	119.90
1	A	2757	U	N1-C2-N3	8.60	120.06	114.90
1	A	2474	G	O5'-P-OP2	8.60	121.02	110.70
1	A	184	C	C5-C4-N4	8.60	126.22	120.20
1	A	2053	U	N1-C1'-C2'	8.60	125.18	114.00
1	A	2701	G	C8-N9-C4	-8.60	102.96	106.40
2	B	108	U	N3-C2-O2	-8.60	116.18	122.20
2	B	100	U	N1-C2-O2	8.60	128.82	122.80
1	A	373	A	C6-C5-N7	-8.60	126.28	132.30
31	a	902	C	N1-C2-O2	8.59	124.06	118.90
1	A	47	C	N3-C2-O2	-8.59	115.89	121.90
1	A	370	G	N9-C4-C5	-8.59	101.96	105.40
1	A	495	A	N9-C4-C5	-8.59	102.36	105.80
1	A	520	G	N1-C2-N2	8.59	123.93	116.20
1	A	2314	A	N1-C6-N6	8.59	123.75	118.60
1	A	2899	A	N9-C4-C5	8.59	109.24	105.80
1	A	373	A	C5-C6-N1	8.58	121.99	117.70
1	A	1050	C	O4'-C1'-N1	8.58	115.07	108.20
1	A	858	U	O5'-C5'-C4'	-8.58	95.39	111.70
1	A	988	C	N3-C2-O2	-8.58	115.89	121.90
1	A	668	C	N3-C4-N4	-8.58	111.99	118.00
1	A	2668	A	N1-C6-N6	-8.58	113.45	118.60
1	A	561	C	C5-C4-N4	-8.58	114.20	120.20
1	A	626	G	OP1-P-O3'	8.58	124.07	105.20
1	A	2699	U	C2-N1-C1'	8.58	127.99	117.70
1	A	648	G	C2-N3-C4	8.58	116.19	111.90
1	A	656	G	N3-C2-N2	8.58	125.90	119.90
1	A	666	A	C2-N3-C4	8.58	114.89	110.60
1	A	2869	G	N3-C2-N2	8.58	125.90	119.90
1	A	2840	A	P-O3'-C3'	8.57	129.99	119.70
1	A	218	G	P-O3'-C3'	8.57	129.99	119.70
1	A	253	G	C6-N1-C2	-8.57	119.96	125.10
1	A	2056	G	C4-C5-C6	8.57	123.94	118.80
1	A	2608	G	N3-C4-N9	8.57	131.14	126.00
1	A	205	U	N3-C2-O2	-8.57	116.20	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	563	G	N1-C2-N3	-8.57	118.76	123.90
1	A	474	A	N1-C6-N6	-8.56	113.46	118.60
1	A	2443	C	N3-C4-N4	8.56	123.99	118.00
1	A	1060	U	N3-C2-O2	-8.56	116.21	122.20
1	A	345	C	C2-N1-C1'	-8.56	109.38	118.80
1	A	374	U	C5-C4-O4	8.56	131.04	125.90
1	A	1360	G	C6-N1-C2	-8.56	119.96	125.10
1	A	2618	C	C6-N1-C2	-8.56	116.88	120.30
1	A	2798	C	C5-C6-N1	8.56	125.28	121.00
1	A	2862	C	C6-N1-C2	-8.56	116.88	120.30
1	A	303	G	N3-C4-N9	-8.55	120.87	126.00
1	A	900	G	N1-C2-N2	-8.55	108.50	116.20
1	A	2095	U	N1-C2-N3	8.55	120.03	114.90
1	A	2525	C	C6-N1-C1'	-8.55	110.54	120.80
1	A	1231	A	C8-N9-C4	8.55	109.22	105.80
1	A	1302	G	N3-C2-N2	8.55	125.88	119.90
1	A	1980	A	C4-C5-N7	8.55	114.97	110.70
1	A	708	G	N3-C4-C5	-8.55	124.33	128.60
1	A	1726	A	C5-C6-N1	8.55	121.97	117.70
1	A	846	G	N3-C4-C5	-8.54	124.33	128.60
1	A	2370	U	O4'-C1'-N1	8.54	115.03	108.20
1	A	438	U	N1-C2-O2	8.54	128.78	122.80
1	A	2454	C	N3-C2-O2	-8.54	115.92	121.90
1	A	1840	U	N3-C2-O2	-8.54	116.22	122.20
1	A	492	G	N7-C8-N9	-8.54	108.83	113.10
1	A	1301	U	N1-C2-O2	8.54	128.78	122.80
1	A	191	A	O5'-P-OP1	-8.53	98.02	105.70
1	A	293	U	C5-C6-N1	8.53	126.96	122.70
1	A	1260	C	O5'-P-OP2	-8.53	98.03	105.70
1	A	567	G	O5'-P-OP2	-8.53	98.03	105.70
1	A	964	U	C5-C6-N1	-8.53	118.44	122.70
1	A	1017	A	OP1-P-OP2	-8.52	106.81	119.60
2	B	85	U	C4-C5-C6	8.52	124.81	119.70
1	A	535	G	N7-C8-N9	8.52	117.36	113.10
1	A	368	A	N3-C4-C5	-8.52	120.84	126.80
1	A	906	A	O5'-P-OP2	-8.52	98.03	105.70
1	A	1207	G	C6-N1-C2	8.52	130.21	125.10
1	A	565	G	N7-C8-N9	8.52	117.36	113.10
1	A	961	G	C8-N9-C4	-8.52	102.99	106.40
1	A	2037	G	N3-C4-N9	8.52	131.11	126.00
1	A	889	U	C5-C6-N1	8.51	126.96	122.70
1	A	1705	G	C6-C5-N7	8.51	135.51	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2379	A	C4-N9-C1'	8.51	141.62	126.30
1	A	2285	C	C6-N1-C1'	-8.51	110.59	120.80
1	A	2469	C	N3-C4-C5	8.51	125.30	121.90
1	A	1976	G	N1-C6-O6	-8.51	114.80	119.90
1	A	2856	U	C2-N3-C4	8.51	132.10	127.00
1	A	1009	C	C4-C5-C6	-8.50	113.15	117.40
1	A	1285	A	C6-C5-N7	8.50	138.25	132.30
2	B	100	U	N3-C2-O2	-8.50	116.25	122.20
1	A	119	U	C5-C4-O4	-8.50	120.80	125.90
1	A	506	A	C4-C5-N7	8.50	114.95	110.70
1	A	666	A	N1-C2-N3	8.50	133.55	129.30
1	A	2569	A	O4'-C1'-N9	-8.50	101.40	108.20
1	A	584	G	N3-C4-N9	8.50	131.10	126.00
1	A	68	A	N1-C6-N6	8.49	123.70	118.60
1	A	117	A	C4-C5-C6	8.49	121.25	117.00
1	A	1000	G	C8-N9-C1'	-8.49	115.96	127.00
1	A	2866	G	C6-C5-N7	-8.49	125.30	130.40
1	A	45	G	C6-C5-N7	-8.49	125.31	130.40
1	A	2830	A	N3-C4-C5	8.49	132.75	126.80
1	A	420	A	C5-N7-C8	-8.49	99.66	103.90
1	A	1061	G	C6-C5-N7	8.49	135.49	130.40
1	A	567	G	N3-C4-N9	8.49	131.09	126.00
1	A	835	U	C6-N1-C2	-8.49	115.91	121.00
1	A	2077	C	N3-C2-O2	-8.49	115.96	121.90
1	A	947	U	C6-N1-C2	-8.49	115.91	121.00
1	A	2471	G	C5-C6-O6	-8.48	123.51	128.60
1	A	157	U	C2-N1-C1'	8.48	127.88	117.70
1	A	1022	G	N3-C4-N9	8.48	131.09	126.00
1	A	2668	A	C5-N7-C8	8.48	108.14	103.90
1	A	1073	A	N3-C4-N9	8.48	134.18	127.40
1	A	1369	G	C6-N1-C2	-8.48	120.02	125.10
1	A	2802	A	C4-N9-C1'	8.48	141.56	126.30
31	a	135	C	C2-N1-C1'	8.48	128.12	118.80
1	A	25	U	N1-C2-O2	8.47	128.73	122.80
1	A	416	G	N3-C4-N9	-8.47	120.92	126.00
1	A	2914	A	N7-C8-N9	8.47	118.04	113.80
2	B	7	G	C5-C6-O6	-8.47	123.52	128.60
1	A	1031	C	C2-N1-C1'	-8.47	109.49	118.80
1	A	1261	G	OP1-P-OP2	8.46	132.30	119.60
1	A	2060	A	N1-C6-N6	-8.47	113.52	118.60
1	A	2080	G	C8-N9-C1'	8.47	138.01	127.00
1	A	642	U	C5-C4-O4	8.46	130.98	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1040	A	N1-C6-N6	8.46	123.68	118.60
1	A	1282	A	N1-C6-N6	-8.46	113.52	118.60
1	A	2886	G	P-O3'-C3'	8.46	129.85	119.70
1	A	2585	C	C6-N1-C2	-8.46	116.92	120.30
1	A	2478	A	C2-N3-C4	8.46	114.83	110.60
1	A	595	G	C5-C6-N1	8.45	115.73	111.50
1	A	2543	G	O5'-P-OP2	8.46	120.85	110.70
1	A	27	G	N1-C2-N2	-8.45	108.60	116.20
1	A	2027	G	N1-C6-O6	-8.45	114.83	119.90
1	A	595	G	C8-N9-C1'	8.45	137.98	127.00
1	A	2636	U	C6-N1-C1'	-8.45	109.37	121.20
1	A	2754	G	N1-C6-O6	-8.45	114.83	119.90
1	A	2045	A	C4-C5-N7	8.45	114.92	110.70
1	A	645	A	C8-N9-C4	-8.44	102.42	105.80
1	A	962	A	C5-N7-C8	-8.44	99.68	103.90
1	A	2418	G	C4-C5-N7	-8.44	107.42	110.80
1	A	65	A	N1-C6-N6	8.44	123.67	118.60
1	A	52	A	C4-N9-C1'	8.44	141.49	126.30
1	A	422	G	C8-N9-C4	-8.44	103.02	106.40
1	A	2596	G	C8-N9-C1'	8.44	137.97	127.00
1	A	496	G	N1-C6-O6	8.44	124.96	119.90
1	A	575	G	C8-N9-C4	-8.44	103.03	106.40
1	A	1044	A	N3-C4-N9	8.43	134.15	127.40
1	A	1919	C	N1-C2-O2	8.43	123.96	118.90
1	A	224	A	C5-N7-C8	-8.43	99.69	103.90
1	A	624	C	O4'-C1'-N1	8.43	114.94	108.20
1	A	692	G	C4-N9-C1'	8.43	137.45	126.50
1	A	987	U	C5-C6-N1	8.43	126.91	122.70
1	A	2049	U	N1-C2-N3	8.43	119.95	114.90
1	A	46	C	C2-N1-C1'	8.42	128.07	118.80
1	A	2397	G	C8-N9-C1'	8.42	137.95	127.00
1	A	2483	C	N3-C4-N4	8.42	123.90	118.00
1	A	374	U	N3-C2-O2	-8.42	116.31	122.20
31	a	1182	C	C6-N1-C2	-8.42	116.93	120.30
1	A	2310	C	C6-N1-C2	-8.42	116.93	120.30
1	A	2486	A	C8-N9-C1'	-8.42	112.54	127.70
1	A	31	C	C6-N1-C2	-8.42	116.93	120.30
1	A	969	A	C5-C6-N1	8.42	121.91	117.70
1	A	2801	C	C2-N1-C1'	8.42	128.06	118.80
1	A	558	A	O5'-P-OP2	-8.41	98.13	105.70
1	A	620	G	N9-C4-C5	8.41	108.77	105.40
1	A	1232	G	C6-C5-N7	-8.41	125.35	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1714	C	N1-C2-O2	8.41	123.95	118.90
1	A	2079	G	C6-C5-N7	-8.41	125.35	130.40
1	A	1223	A	C5-C6-N1	8.41	121.90	117.70
1	A	520	G	C8-N9-C1'	8.41	137.93	127.00
1	A	2052	C	C6-N1-C2	8.41	123.66	120.30
1	A	2326	G	C5-C6-O6	-8.41	123.56	128.60
1	A	383	A	C5-C6-N6	8.40	130.42	123.70
1	A	868	A	C5-C6-N6	-8.40	116.98	123.70
1	A	890	G	C5-N7-C8	-8.40	100.10	104.30
1	A	1186	A	C4-C5-N7	-8.40	106.50	110.70
1	A	1226	G	C5-C6-N1	8.40	115.70	111.50
1	A	1508	C	C6-N1-C2	-8.40	116.94	120.30
1	A	2492	C	C6-N1-C2	-8.40	116.94	120.30
1	A	2653	C	N3-C4-C5	-8.40	118.54	121.90
1	A	2855	A	C4-C5-C6	-8.40	112.80	117.00
1	A	14	A	C2-N3-C4	8.40	114.80	110.60
1	A	457	G	N9-C4-C5	-8.40	102.04	105.40
1	A	702	U	C6-N1-C2	8.40	126.04	121.00
1	A	2628	C	N3-C4-C5	8.40	125.26	121.90
1	A	74	U	C2-N1-C1'	8.40	127.78	117.70
1	A	2264	G	C4-C5-N7	8.40	114.16	110.80
1	A	2078	A	N3-C4-N9	8.40	134.12	127.40
2	B	100	U	C2-N1-C1'	8.40	127.78	117.70
1	A	2035	C	N3-C2-O2	-8.39	116.03	121.90
1	A	13	A	N9-C4-C5	8.39	109.16	105.80
1	A	909	G	N3-C4-N9	8.39	131.03	126.00
1	A	95	A	C8-N9-C4	8.38	109.15	105.80
1	A	868	A	O5'-P-OP1	-8.38	98.16	105.70
1	A	1299	U	C2-N1-C1'	8.38	127.76	117.70
1	A	650	U	C5'-C4'-O4'	8.38	119.16	109.10
1	A	1715	U	C5-C4-O4	-8.38	120.87	125.90
1	A	12	U	C5-C6-N1	8.38	126.89	122.70
1	A	24	G	C8-N9-C1'	8.38	137.89	127.00
1	A	634	C	C6-N1-C2	-8.38	116.95	120.30
1	A	1198	G	C4-C5-C6	8.37	123.83	118.80
1	A	530	C	N3-C4-C5	-8.37	118.55	121.90
1	A	2887	G	C5-C6-N1	8.37	115.69	111.50
1	A	1257	G	N9-C4-C5	-8.37	102.05	105.40
1	A	1801	C	N1-C2-O2	8.37	123.92	118.90
1	A	47	C	O4'-C1'-N1	8.37	114.89	108.20
1	A	489	A	C4-N9-C1'	8.37	141.36	126.30
1	A	861	C	C2-N1-C1'	8.37	128.00	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	988	C	N3-C4-N4	-8.37	112.14	118.00
1	A	1012	G	C5-C6-O6	-8.37	123.58	128.60
1	A	1030	C	O5'-P-OP1	-8.37	98.17	105.70
1	A	1022	G	C4-C5-N7	8.37	114.15	110.80
1	A	2472	G	N3-C4-N9	-8.36	120.98	126.00
1	A	633	A	C5-C6-N1	-8.36	113.52	117.70
1	A	965	G	C4-C5-N7	-8.36	107.45	110.80
1	A	201	C	C5-C4-N4	-8.36	114.35	120.20
1	A	2024	A	C4-C5-N7	8.36	114.88	110.70
1	A	1251	A	N1-C6-N6	-8.36	113.58	118.60
1	A	984	G	N9-C4-C5	-8.36	102.06	105.40
1	A	410	G	C4-C5-N7	8.35	114.14	110.80
1	A	1002	U	N1-C2-N3	8.35	119.91	114.90
1	A	1073	A	C2-N3-C4	8.35	114.78	110.60
1	A	253	G	C8-N9-C4	-8.35	103.06	106.40
1	A	422	G	N1-C6-O6	-8.35	114.89	119.90
1	A	600	U	C5-C6-N1	-8.35	118.52	122.70
1	A	622	A	C5-C6-N6	-8.35	117.02	123.70
1	A	874	A	O5'-P-OP2	8.35	120.72	110.70
1	A	2361	U	N1-C2-O2	8.35	128.65	122.80
31	a	1449	G	C4-N9-C1'	-8.35	115.64	126.50
1	A	200	A	O5'-P-OP1	-8.35	98.19	105.70
1	A	1250	G	C8-N9-C1'	-8.35	116.14	127.00
1	A	1325	U	N3-C2-O2	-8.35	116.36	122.20
1	A	1198	G	C5-N7-C8	-8.35	100.13	104.30
1	A	194	A	C5-C6-N6	8.35	130.38	123.70
1	A	519	G	C4-N9-C1'	8.35	137.35	126.50
1	A	376	A	O5'-P-OP2	-8.34	98.19	105.70
1	A	1269	A	N7-C8-N9	8.34	117.97	113.80
1	A	1691	G	C4-N9-C1'	-8.34	115.65	126.50
1	A	2056	G	C8-N9-C4	-8.34	103.06	106.40
1	A	2501	U	C2-N1-C1'	8.34	127.71	117.70
1	A	2859	G	N7-C8-N9	8.34	117.27	113.10
1	A	12	U	C6-N1-C2	-8.34	116.00	121.00
1	A	1260	C	N3-C2-O2	-8.34	116.06	121.90
1	A	968	A	N9-C4-C5	8.34	109.14	105.80
1	A	2273	G	C4-C5-N7	8.34	114.13	110.80
1	A	2645	G	C8-N9-C1'	-8.34	116.16	127.00
31	a	1247	C	C2-N1-C1'	8.34	127.97	118.80
1	A	71	A	C4-C5-N7	8.33	114.87	110.70
1	A	490	C	C6-N1-C1'	8.33	130.80	120.80
1	A	552	A	C8-N9-C4	8.33	109.13	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2277	G	N1-C2-N2	8.33	123.70	116.20
1	A	588	G	C4-N9-C1'	8.33	137.32	126.50
1	A	973	A	C4-C5-N7	8.33	114.86	110.70
1	A	2568	A	O5'-P-OP2	-8.32	98.21	105.70
31	a	1485	G	C8-N9-C4	-8.32	103.07	106.40
1	A	1980	A	N1-C6-N6	8.32	123.59	118.60
1	A	2805	A	C2-N3-C4	8.32	114.76	110.60
1	A	1175	G	N3-C4-C5	8.31	132.76	128.60
1	A	1282	A	N9-C4-C5	8.31	109.13	105.80
1	A	2918	A	C8-N9-C4	-8.31	102.47	105.80
1	A	2646	U	O5'-P-OP1	-8.31	98.22	105.70
1	A	1064	A	O5'-P-OP1	-8.31	98.22	105.70
1	A	2456	G	N7-C8-N9	8.31	117.25	113.10
1	A	2396	A	C5-C6-N1	-8.31	113.55	117.70
1	A	192	G	C4-C5-N7	8.31	114.12	110.80
1	A	656	G	N1-C2-N2	-8.30	108.73	116.20
1	A	1257	G	OP1-P-OP2	8.30	132.06	119.60
1	A	1265	G	C6-C5-N7	-8.30	125.42	130.40
1	A	327	G	N3-C4-N9	8.30	130.98	126.00
1	A	1186	A	N9-C4-C5	8.30	109.12	105.80
1	A	1704	C	N3-C2-O2	-8.30	116.09	121.90
1	A	2519	U	C5-C6-N1	8.30	126.85	122.70
1	A	568	C	N3-C2-O2	-8.30	116.09	121.90
1	A	2543	G	O5'-P-OP1	8.30	120.66	110.70
1	A	1599	G	N3-C4-N9	-8.30	121.02	126.00
1	A	2514	G	C6-N1-C2	-8.29	120.12	125.10
1	A	471	G	C4-C5-N7	-8.29	107.48	110.80
1	A	494	U	C2-N1-C1'	8.29	127.65	117.70
1	A	593	U	N3-C2-O2	-8.29	116.40	122.20
1	A	1308	C	C4-C5-C6	-8.29	113.26	117.40
1	A	1992	C	C2-N1-C1'	8.29	127.92	118.80
1	A	1183	G	O5'-P-OP2	8.29	120.64	110.70
1	A	356	A	C4-C5-N7	8.28	114.84	110.70
1	A	1798	C	C5-C6-N1	8.29	125.14	121.00
1	A	2369	C	C5-C6-N1	8.29	125.14	121.00
1	A	2410	G	C2-N3-C4	8.29	116.04	111.90
1	A	2668	A	C5-C6-N6	8.28	130.33	123.70
1	A	906	A	N7-C8-N9	8.28	117.94	113.80
1	A	1494	G	N3-C2-N2	-8.28	114.10	119.90
2	B	87	C	N3-C2-O2	-8.28	116.10	121.90
1	A	544	U	C6-N1-C1'	8.28	132.79	121.20
1	A	1602	U	C5-C4-O4	-8.28	120.93	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2497	G	C5-N7-C8	-8.28	100.16	104.30
1	A	890	G	N3-C2-N2	8.28	125.69	119.90
1	A	2865	G	C6-C5-N7	-8.27	125.44	130.40
2	B	108	U	C2-N1-C1'	8.27	127.63	117.70
1	A	965	G	C2-N3-C4	8.27	116.03	111.90
1	A	2483	C	O4'-C1'-N1	8.27	114.81	108.20
1	A	1182	G	OP2-P-O3'	-8.27	87.02	105.20
1	A	1064	A	C6-C5-N7	8.26	138.09	132.30
1	A	513	G	OP1-P-OP2	-8.26	107.21	119.60
1	A	262	G	N1-C2-N2	-8.26	108.77	116.20
1	A	557	G	C6-C5-N7	-8.26	125.44	130.40
1	A	594	G	P-O3'-C3'	8.26	129.61	119.70
1	A	1324	A	C2-N3-C4	8.26	114.73	110.60
1	A	1374	G	C2-N3-C4	-8.26	107.77	111.90
1	A	1395	G	O4'-C1'-N9	8.26	114.81	108.20
1	A	2452	A	N7-C8-N9	8.26	117.93	113.80
1	A	410	G	N7-C8-N9	8.26	117.23	113.10
1	A	547	A	C4-N9-C1'	8.26	141.16	126.30
1	A	1259	U	C5-C6-N1	8.26	126.83	122.70
1	A	1207	G	N3-C2-N2	8.26	125.68	119.90
1	A	2080	G	C5-C6-O6	8.26	133.55	128.60
1	A	408	U	N3-C2-O2	-8.25	116.42	122.20
1	A	1026	C	C2-N3-C4	8.25	124.03	119.90
1	A	1266	G	C4-N9-C1'	-8.25	115.77	126.50
1	A	1429	G	N1-C2-N2	-8.25	108.77	116.20
1	A	2277	G	O5'-P-OP2	-8.25	98.28	105.70
1	A	2658	G	N7-C8-N9	8.25	117.22	113.10
1	A	70	G	N7-C8-N9	-8.25	108.98	113.10
1	A	210	A	N3-C4-N9	8.25	134.00	127.40
1	A	1298	G	N1-C6-O6	-8.25	114.95	119.90
2	B	24	C	N1-C2-O2	8.25	123.85	118.90
1	A	180	G	C4-N9-C1'	8.24	137.22	126.50
1	A	470	G	C4-N9-C1'	-8.24	115.78	126.50
1	A	2443	C	C5-C4-N4	-8.24	114.43	120.20
1	A	867	U	C5'-C4'-O4'	-8.24	99.21	109.10
1	A	962	A	N7-C8-N9	8.24	117.92	113.80
1	A	1013	U	OP2-P-O3'	8.24	123.33	105.20
1	A	1692	C	C2-N1-C1'	8.24	127.87	118.80
1	A	2484	U	C5-C6-N1	8.24	126.82	122.70
1	A	1506	C	N3-C2-O2	-8.24	116.13	121.90
1	A	1000	G	N3-C4-C5	-8.24	124.48	128.60
1	A	1255	A	C4-C5-N7	8.24	114.82	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2054	G	C6-C5-N7	8.24	135.34	130.40
1	A	45	G	N3-C4-C5	-8.23	124.48	128.60
1	A	415	U	N3-C2-O2	-8.23	116.44	122.20
1	A	1267	A	C5-C6-N1	8.23	121.82	117.70
1	A	410	G	C5-N7-C8	-8.23	100.19	104.30
1	A	2418	G	N3-C4-C5	-8.23	124.48	128.60
1	A	442	G	N3-C4-C5	8.23	132.71	128.60
1	A	1270	U	C2-N1-C1'	8.23	127.57	117.70
1	A	419	U	O4'-C1'-N1	8.23	114.78	108.20
1	A	2029	G	N1-C6-O6	-8.22	114.97	119.90
1	A	2036	G	N1-C2-N3	8.22	128.83	123.90
31	a	1392	C	N1-C2-O2	8.22	123.83	118.90
1	A	912	C	O5'-P-OP1	-8.22	98.30	105.70
1	A	1224	U	P-O3'-C3'	8.22	129.56	119.70
1	A	2561	C	N1-C2-O2	8.22	123.83	118.90
1	A	426	G	C6-C5-N7	8.22	135.33	130.40
1	A	714	G	N3-C4-N9	8.22	130.93	126.00
1	A	1980	A	N1-C2-N3	8.22	133.41	129.30
1	A	2894	C	C5-C4-N4	8.22	125.95	120.20
1	A	1061	G	C4-C5-N7	-8.21	107.51	110.80
1	A	2042	A	N7-C8-N9	8.21	117.91	113.80
1	A	632	U	C2-N1-C1'	-8.21	107.85	117.70
1	A	1066	G	N3-C2-N2	8.21	125.65	119.90
1	A	2063	C	C2-N3-C4	8.21	124.01	119.90
1	A	341	G	N3-C2-N2	8.21	125.65	119.90
1	A	624	C	C6-N1-C1'	8.21	130.65	120.80
1	A	641	A	C4-C5-N7	8.21	114.81	110.70
1	A	708	G	N3-C4-N9	8.21	130.93	126.00
1	A	844	G	C8-N9-C4	-8.21	103.12	106.40
1	A	2759	G	N1-C2-N2	-8.21	108.81	116.20
1	A	2644	C	O5'-P-OP2	-8.21	98.31	105.70
1	A	534	G	C4'-C3'-O3'	8.21	129.41	113.00
1	A	2867	U	N1-C2-N3	8.20	119.82	114.90
1	A	18	C	C2-N1-C1'	8.20	127.82	118.80
1	A	228	A	C8-N9-C4	-8.20	102.52	105.80
1	A	505	U	N3-C2-O2	-8.20	116.46	122.20
1	A	1038	C	N3-C2-O2	-8.20	116.16	121.90
1	A	2063	C	N1-C2-N3	8.20	124.94	119.20
1	A	1257	G	N1-C2-N3	8.20	128.82	123.90
1	A	2442	G	C6-N1-C2	-8.20	120.18	125.10
1	A	2643	C	O5'-P-OP2	8.20	120.54	110.70
1	A	2904	U	C2-N1-C1'	8.20	127.54	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	262	G	N9-C1'-C2'	-8.19	102.99	112.00
1	A	2758	G	C5-C6-O6	8.19	133.51	128.60
1	A	459	C	C2-N1-C1'	8.19	127.81	118.80
1	A	555	C	N1-C2-O2	8.19	123.81	118.90
1	A	442	G	N1-C6-O6	-8.19	114.99	119.90
1	A	3	U	N1-C2-O2	8.19	128.53	122.80
1	A	597	U	C2-N1-C1'	8.18	127.52	117.70
1	A	1183	G	C8-N9-C4	-8.18	103.13	106.40
1	A	503	A	C6-C5-N7	-8.18	126.57	132.30
1	A	1719	C	N3-C2-O2	-8.18	116.17	121.90
1	A	2027	G	N3-C2-N2	-8.18	114.17	119.90
1	A	2547	C	C6-N1-C2	-8.18	117.03	120.30
1	A	380	U	C6-N1-C1'	8.18	132.65	121.20
1	A	544	U	O4'-C1'-N1	8.18	114.74	108.20
1	A	2084	G	N9-C1'-C2'	8.18	124.63	114.00
1	A	1181	G	C5-N7-C8	8.18	108.39	104.30
1	A	665	G	C4-C5-C6	8.17	123.70	118.80
1	A	1284	A	N1-C6-N6	-8.17	113.70	118.60
1	A	2528	C	C5-C6-N1	-8.17	116.91	121.00
1	A	125	A	C6-C5-N7	-8.17	126.58	132.30
1	A	576	U	P-O3'-C3'	8.17	129.50	119.70
1	A	2569	A	C4-C5-C6	8.17	121.08	117.00
1	A	554	C	N3-C2-O2	-8.16	116.19	121.90
1	A	1173	A	C5-C6-N6	-8.16	117.17	123.70
1	A	2607	U	N1-C2-O2	8.16	128.51	122.80
1	A	2046	U	C4-C5-C6	8.16	124.60	119.70
1	A	2081	A	N3-C4-N9	-8.16	120.87	127.40
1	A	2603	G	N3-C4-N9	8.16	130.90	126.00
1	A	416	G	N3-C2-N2	-8.16	114.19	119.90
1	A	1054	A	N9-C4-C5	8.15	109.06	105.80
1	A	1266	G	C8-N9-C4	8.15	109.66	106.40
1	A	2757	U	N3-C4-C5	8.15	119.49	114.60
1	A	1415	A	C2-N3-C4	8.15	114.68	110.60
31	a	599	U	N1-C2-O2	8.15	128.50	122.80
1	A	378	C	C6-N1-C1'	-8.15	111.02	120.80
31	a	606	U	N1-C2-O2	8.15	128.50	122.80
1	A	1177	A	C5-C6-N6	8.15	130.22	123.70
1	A	32	C	O4'-C1'-N1	8.14	114.72	108.20
1	A	375	A	N9-C4-C5	8.14	109.06	105.80
1	A	577	A	C2-N3-C4	8.14	114.67	110.60
1	A	1007	U	C6-N1-C2	-8.14	116.11	121.00
1	A	2481	G	OP2-P-O3'	8.14	123.12	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	959	C	O4'-C1'-N1	8.14	114.71	108.20
1	A	1207	G	N9-C4-C5	-8.14	102.14	105.40
1	A	177	G	C4-C5-N7	8.14	114.06	110.80
1	A	632	U	N1-C2-N3	8.14	119.78	114.90
1	A	298	U	N3-C4-C5	-8.14	109.72	114.60
1	A	1692	C	C6-N1-C1'	-8.14	111.03	120.80
1	A	2812	U	C5-C4-O4	-8.14	121.02	125.90
1	A	427	A	C2-N3-C4	8.13	114.67	110.60
1	A	2667	G	N1-C2-N2	8.13	123.52	116.20
1	A	253	G	N3-C4-N9	-8.13	121.12	126.00
1	A	593	U	C2-N1-C1'	8.13	127.46	117.70
1	A	2569	A	C6-C5-N7	-8.13	126.61	132.30
1	A	2867	U	N1-C2-O2	8.13	128.49	122.80
1	A	707	G	C5-N7-C8	8.13	108.36	104.30
1	A	2024	A	C6-C5-N7	-8.13	126.61	132.30
1	A	527	G	C6-C5-N7	-8.13	125.52	130.40
1	A	721	A	N9-C4-C5	8.13	109.05	105.80
1	A	2229	C	C5-C6-N1	8.13	125.06	121.00
31	a	487	U	C5-C6-N1	8.13	126.76	122.70
1	A	44	A	C5-C6-N6	-8.13	117.20	123.70
1	A	2797	C	P-O3'-C3'	8.13	129.45	119.70
1	A	713	A	P-O3'-C3'	8.12	129.45	119.70
1	A	873	U	N3-C4-C5	-8.12	109.72	114.60
31	a	387	C	C2-N1-C1'	8.12	127.74	118.80
1	A	1772	G	N3-C4-C5	-8.12	124.54	128.60
1	A	2352	G	C6-N1-C2	-8.12	120.23	125.10
1	A	2392	G	C4-C5-N7	8.12	114.05	110.80
1	A	909	G	N1-C2-N3	8.12	128.77	123.90
1	A	1395	G	C5-C6-O6	-8.12	123.73	128.60
1	A	2888	A	C5-C6-N1	8.12	121.76	117.70
1	A	198	A	N7-C8-N9	8.12	117.86	113.80
1	A	809	A	C8-N9-C4	-8.12	102.55	105.80
1	A	2470	C	N3-C4-C5	8.11	125.14	121.90
1	A	2702	A	C8-N9-C4	-8.11	102.56	105.80
1	A	21	A	C4-C5-N7	8.11	114.75	110.70
1	A	69	C	N1-C2-N3	8.11	124.88	119.20
1	A	906	A	C6-C5-N7	8.11	137.97	132.30
1	A	1827	C	C6-N1-C2	-8.11	117.06	120.30
1	A	2054	G	C8-N9-C1'	8.11	137.54	127.00
1	A	119	U	N3-C4-C5	-8.11	109.74	114.60
1	A	593	U	O4'-C1'-N1	8.11	114.69	108.20
1	A	1028	G	O3'-P-O5'	8.11	119.40	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1199	A	C5-C6-N1	8.11	121.75	117.70
31	a	1212	U	N1-C2-O2	8.11	128.47	122.80
1	A	2901	U	N3-C2-O2	-8.10	116.53	122.20
1	A	2569	A	O5'-P-OP1	8.10	120.42	110.70
1	A	378	C	N3-C4-N4	8.09	123.67	118.00
1	A	543	G	C2-N3-C4	-8.09	107.85	111.90
1	A	867	U	N3-C4-O4	-8.09	113.73	119.40
1	A	990	G	C1'-O4'-C4'	-8.09	103.43	109.90
1	A	2048	G	N3-C2-N2	-8.09	114.23	119.90
1	A	2440	G	C4-N9-C1'	8.09	137.02	126.50
1	A	237	U	N3-C2-O2	-8.09	116.54	122.20
1	A	1069	G	N9-C4-C5	-8.09	102.16	105.40
1	A	265	A	O4'-C1'-N9	8.09	114.67	108.20
1	A	2586	C	N3-C2-O2	-8.09	116.24	121.90
1	A	2083	G	N3-C2-N2	8.08	125.56	119.90
1	A	522	G	N9-C4-C5	8.08	108.63	105.40
1	A	606	G	C4-C5-N7	-8.08	107.57	110.80
1	A	692	G	C4-C5-N7	8.08	114.03	110.80
1	A	2690	G	C4-C5-N7	8.08	114.03	110.80
1	A	2472	G	C2-N3-C4	8.08	115.94	111.90
1	A	2668	A	C8-N9-C1'	-8.08	113.16	127.70
1	A	2761	C	O4'-C1'-N1	8.08	114.66	108.20
1	A	478	A	N9-C4-C5	-8.08	102.57	105.80
1	A	633	A	C8-N9-C1'	-8.08	113.16	127.70
1	A	2084	G	C4-C5-C6	8.08	123.65	118.80
1	A	2392	G	C6-C5-N7	-8.08	125.55	130.40
1	A	2551	G	C8-N9-C4	-8.08	103.17	106.40
1	A	429	C	C2-N3-C4	-8.07	115.86	119.90
1	A	2603	G	C4-C5-N7	8.07	114.03	110.80
1	A	2051	C	C6-N1-C2	-8.07	117.07	120.30
1	A	2757	U	C2-N3-C4	-8.07	122.16	127.00
1	A	1053	A	C2-N3-C4	8.07	114.63	110.60
1	A	1069	G	C4-C5-N7	8.06	114.03	110.80
1	A	1201	G	C5-C6-N1	-8.06	107.47	111.50
1	A	1701	U	N1-C2-N3	8.06	119.74	114.90
1	A	2665	G	N1-C6-O6	8.06	124.74	119.90
1	A	2806	U	OP1-P-OP2	-8.06	107.50	119.60
1	A	1053	A	N1-C2-N3	-8.06	125.27	129.30
1	A	527	G	N1-C6-O6	8.06	124.73	119.90
1	A	576	U	C5-C6-N1	8.06	126.73	122.70
1	A	2092	C	N1-C2-N3	8.06	124.84	119.20
1	A	2657	G	C4-N9-C1'	8.06	136.98	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	445	G	C6-C5-N7	8.06	135.23	130.40
1	A	2277	G	C6-N1-C2	-8.05	120.27	125.10
1	A	2855	A	C4-C5-N7	8.05	114.73	110.70
1	A	354	A	N3-C4-C5	-8.05	121.17	126.80
1	A	703	A	C4-C5-C6	8.05	121.03	117.00
1	A	2510	C	N3-C4-N4	-8.05	112.36	118.00
1	A	461	A	C4-C5-N7	8.05	114.72	110.70
1	A	2838	C	C6-N1-C2	-8.05	117.08	120.30
1	A	531	C	N3-C4-C5	-8.04	118.68	121.90
1	A	1062	U	C2-N3-C4	-8.04	122.17	127.00
1	A	1295	C	C4-C5-C6	-8.04	113.38	117.40
1	A	491	C	C6-N1-C1'	-8.04	111.15	120.80
1	A	572	C	C2-N3-C4	8.04	123.92	119.90
1	A	991	A	C6-N1-C2	-8.04	113.78	118.60
1	A	1354	G	C5-C6-O6	8.04	133.42	128.60
2	B	76	A	N3-C4-C5	-8.04	121.17	126.80
1	A	565	G	C2-N3-C4	-8.04	107.88	111.90
1	A	576	U	N1-C1'-C2'	8.04	124.45	114.00
1	A	882	C	C2-N3-C4	-8.04	115.88	119.90
1	A	900	G	C4-N9-C1'	-8.04	116.05	126.50
1	A	994	A	N9-C1'-C2'	-8.04	103.16	112.00
1	A	194	A	C4-C5-N7	-8.04	106.68	110.70
1	A	707	G	N3-C4-N9	8.04	130.82	126.00
1	A	643	G	OP1-P-OP2	-8.03	107.55	119.60
1	A	959	C	C6-N1-C2	8.03	123.51	120.30
1	A	771	G	OP1-P-OP2	8.03	131.65	119.60
1	A	2583	C	N3-C2-O2	-8.03	116.28	121.90
31	a	1247	C	N1-C2-O2	8.03	123.72	118.90
1	A	284	C	C6-N1-C2	-8.03	117.09	120.30
1	A	1187	A	C6-C5-N7	-8.03	126.68	132.30
1	A	2078	A	O5'-P-OP1	-8.03	98.47	105.70
1	A	489	A	OP2-P-O3'	8.03	122.86	105.20
1	A	527	G	N3-C2-N2	8.03	125.52	119.90
1	A	846	G	C2-N3-C4	8.03	115.91	111.90
1	A	1188	A	N9-C4-C5	-8.03	102.59	105.80
1	A	558	A	C8-N9-C4	-8.02	102.59	105.80
1	A	349	U	N3-C2-O2	-8.02	116.59	122.20
1	A	963	A	C2-N3-C4	-8.02	106.59	110.60
1	A	159	U	C5-C6-N1	8.02	126.71	122.70
1	A	488	G	N1-C6-O6	-8.02	115.09	119.90
1	A	1224	U	C5-C4-O4	8.02	130.71	125.90
31	a	743	C	C2-N1-C1'	8.02	127.62	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2693	C	N1-C2-O2	8.01	123.71	118.90
1	A	490	C	C2-N3-C4	-8.01	115.89	119.90
1	A	1005	G	C2-N3-C4	8.01	115.91	111.90
1	A	2762	G	C8-N9-C1'	8.01	137.41	127.00
1	A	624	C	C2-N1-C1'	-8.01	109.99	118.80
1	A	2661	A	N1-C6-N6	-8.01	113.80	118.60
1	A	2865	G	C4-C5-N7	8.01	114.00	110.80
1	A	2705	U	N3-C2-O2	-8.01	116.60	122.20
1	A	2488	C	C4-C5-C6	-8.00	113.40	117.40
1	A	2577	G	C6-C5-N7	-8.00	125.60	130.40
1	A	96	G	C5-N7-C8	-8.00	100.30	104.30
1	A	600	U	N1-C2-N3	-8.00	110.10	114.90
1	A	2447	C	C5-C6-N1	8.00	125.00	121.00
31	a	135	C	N3-C2-O2	-8.00	116.30	121.90
1	A	648	G	N3-C2-N2	8.00	125.50	119.90
1	A	380	U	C2-N3-C4	-7.99	122.20	127.00
1	A	1204	G	N3-C4-C5	7.99	132.60	128.60
1	A	889	U	C5-C4-O4	-7.99	121.11	125.90
1	A	2473	G	C6-C5-N7	-7.99	125.61	130.40
2	B	107	U	C5-C6-N1	7.99	126.69	122.70
1	A	376	A	C6-N1-C2	-7.99	113.81	118.60
1	A	1084	U	N3-C2-O2	-7.99	116.61	122.20
1	A	2011	U	N3-C4-O4	-7.99	113.81	119.40
1	A	480	U	N1-C2-N3	7.99	119.69	114.90
1	A	571	A	O4'-C1'-N9	7.99	114.59	108.20
1	A	634	C	C1'-O4'-C4'	-7.99	103.51	109.90
1	A	1235	C	C2-N3-C4	7.99	123.89	119.90
1	A	70	G	O5'-P-OP1	-7.98	98.51	105.70
1	A	45	G	C8-N9-C4	-7.98	103.21	106.40
1	A	1537	A	N1-C6-N6	7.98	123.39	118.60
1	A	2397	G	C6-C5-N7	7.98	135.19	130.40
1	A	2778	G	C8-N9-C4	-7.98	103.21	106.40
1	A	961	G	C8-N9-C1'	-7.98	116.63	127.00
1	A	1413	C	C6-N1-C2	-7.98	117.11	120.30
1	A	2394	G	N1-C2-N3	7.98	128.69	123.90
1	A	1028	G	O5'-P-OP2	-7.98	98.52	105.70
1	A	1287	U	O5'-P-OP1	7.98	120.27	110.70
1	A	2326	G	C4-N9-C1'	7.98	136.87	126.50
1	A	15	G	N3-C4-C5	-7.97	124.61	128.60
1	A	575	G	C8-N9-C1'	-7.97	116.64	127.00
1	A	17	G	C6-C5-N7	-7.97	125.62	130.40
1	A	303	G	C2-N3-C4	-7.97	107.92	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2519	U	C6-N1-C2	-7.97	116.22	121.00
1	A	223	G	N3-C4-N9	7.97	130.78	126.00
1	A	1200	A	C6-N1-C2	7.97	123.38	118.60
1	A	195	C	N3-C4-C5	7.97	125.09	121.90
1	A	226	A	N3-C4-C5	7.97	132.38	126.80
1	A	534	G	N7-C8-N9	7.97	117.08	113.10
1	A	2902	A	C4-C5-C6	7.97	120.98	117.00
1	A	104	C	C6-N1-C2	-7.96	117.12	120.30
1	A	1066	G	C5-C6-N1	7.96	115.48	111.50
1	A	2411	A	C5-C6-N1	-7.96	113.72	117.70
1	A	1283	G	C5-C6-O6	7.96	133.38	128.60
1	A	2550	G	C2-N3-C4	7.96	115.88	111.90
2	B	76	A	C8-N9-C4	-7.96	102.62	105.80
1	A	2053	U	N1-C2-N3	-7.96	110.13	114.90
1	A	90	A	C5-C6-N1	7.95	121.68	117.70
1	A	2810	A	C6-N1-C2	-7.95	113.83	118.60
1	A	194	A	C5-C6-N1	7.95	121.68	117.70
1	A	1065	A	N7-C8-N9	7.95	117.78	113.80
1	A	2100	C	N3-C2-O2	-7.95	116.33	121.90
1	A	2373	A	N3-C4-C5	-7.95	121.23	126.80
1	A	2525	C	C5-C6-N1	-7.95	117.03	121.00
1	A	194	A	C4-C5-C6	-7.95	113.03	117.00
1	A	640	G	N1-C2-N3	7.95	128.67	123.90
1	A	37	C	C5-C6-N1	7.94	124.97	121.00
1	A	370	G	C5-C6-N1	7.94	115.47	111.50
1	A	1055	A	O5'-P-OP1	-7.94	98.55	105.70
31	a	945	C	N1-C2-O2	7.94	123.67	118.90
1	A	2289	U	O5'-P-OP1	-7.94	98.56	105.70
1	A	2515	A	N1-C2-N3	-7.94	125.33	129.30
1	A	2551	G	O5'-P-OP1	-7.94	98.56	105.70
1	A	2224	U	C2-N1-C1'	7.94	127.22	117.70
1	A	338	G	N3-C4-N9	7.93	130.76	126.00
1	A	2731	C	C6-N1-C2	-7.93	117.13	120.30
1	A	26	G	N1-C6-O6	-7.93	115.14	119.90
1	A	1988	C	N3-C4-C5	7.93	125.07	121.90
1	A	2480	A	N3-C4-N9	7.93	133.74	127.40
1	A	238	U	N3-C4-C5	-7.92	109.84	114.60
1	A	569	U	N3-C2-O2	-7.92	116.65	122.20
1	A	624	C	N1-C2-N3	7.92	124.75	119.20
1	A	825	G	C4-C5-N7	7.92	113.97	110.80
1	A	1294	G	C5-C6-N1	7.92	115.46	111.50
1	A	2056	G	P-O3'-C3'	-7.92	110.19	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2523	C	N3-C4-N4	-7.92	112.45	118.00
1	A	2641	A	O4'-C1'-N9	-7.92	101.86	108.20
1	A	648	G	C6-N1-C2	-7.92	120.35	125.10
1	A	2869	G	OP1-P-OP2	-7.92	107.72	119.60
1	A	350	G	N9-C4-C5	-7.92	102.23	105.40
1	A	1289	A	N1-C2-N3	-7.92	125.34	129.30
1	A	2686	G	C8-N9-C4	-7.92	103.23	106.40
1	A	1200	A	OP1-P-OP2	-7.92	107.73	119.60
1	A	1647	A	N1-C6-N6	-7.92	113.85	118.60
1	A	1025	A	C4-C5-C6	-7.91	113.04	117.00
1	A	2097	G	C5-N7-C8	-7.91	100.34	104.30
1	A	1804	U	N3-C4-O4	-7.91	113.86	119.40
1	A	2427	G	N3-C4-N9	7.91	130.75	126.00
1	A	2456	G	C5-C6-N1	7.91	115.45	111.50
1	A	597	U	C5-C4-O4	-7.91	121.16	125.90
1	A	2654	G	O4'-C1'-N9	7.91	114.53	108.20
1	A	2031	G	C4-N9-C1'	-7.90	116.23	126.50
1	A	21	A	N1-C6-N6	7.90	123.34	118.60
1	A	340	C	N1-C2-O2	7.90	123.64	118.90
1	A	1007	U	N1-C2-N3	7.90	119.64	114.90
1	A	459	C	C6-N1-C1'	-7.90	111.32	120.80
1	A	36	G	N3-C4-N9	7.90	130.74	126.00
1	A	2677	C	N1-C2-O2	7.90	123.64	118.90
31	a	1139	C	C6-N1-C2	-7.90	117.14	120.30
1	A	429	C	N3-C2-O2	-7.90	116.37	121.90
1	A	353	A	C8-N9-C4	-7.89	102.64	105.80
1	A	2150	A	N7-C8-N9	7.89	117.75	113.80
1	A	599	A	O4'-C1'-N9	7.89	114.51	108.20
1	A	667	G	C4-C5-C6	7.89	123.53	118.80
1	A	223	G	N1-C2-N2	-7.89	109.10	116.20
1	A	994	A	N1-C2-N3	-7.89	125.36	129.30
1	A	2478	A	C5-C6-N1	7.89	121.64	117.70
1	A	729	G	C5-C6-N1	7.89	115.44	111.50
1	A	2062	G	N3-C4-N9	-7.89	121.27	126.00
1	A	1296	C	C6-N1-C1'	7.89	130.26	120.80
1	A	2546	U	C4-C5-C6	7.89	124.43	119.70
31	a	427	C	N3-C2-O2	-7.89	116.38	121.90
1	A	1186	A	C4-N9-C1'	7.88	140.49	126.30
1	A	1036	C	C6-N1-C1'	7.88	130.26	120.80
1	A	1368	C	N1-C2-O2	7.88	123.63	118.90
1	A	2058	A	C6-N1-C2	-7.88	113.87	118.60
1	A	2577	G	N7-C8-N9	7.88	117.04	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	436	A	O4'-C1'-N9	7.88	114.50	108.20
1	A	2275	C	O5'-P-OP2	7.88	120.16	110.70
1	A	2051	C	C5-C6-N1	7.88	124.94	121.00
1	A	2411	A	N7-C8-N9	7.88	117.74	113.80
1	A	2819	C	C2-N1-C1'	7.88	127.46	118.80
1	A	1625	U	N3-C2-O2	-7.88	116.69	122.20
1	A	2453	A	P-O3'-C3'	7.88	129.15	119.70
1	A	253	G	C4-C5-N7	-7.87	107.65	110.80
1	A	2054	G	N3-C2-N2	-7.87	114.39	119.90
1	A	184	C	N3-C4-C5	-7.87	118.75	121.90
1	A	920	A	C6-C5-N7	7.87	137.81	132.30
1	A	1285	A	C8-N9-C4	7.87	108.95	105.80
1	A	1018	A	N3-C4-N9	-7.87	121.11	127.40
1	A	193	A	C2-N3-C4	7.87	114.53	110.60
1	A	226	A	C8-N9-C4	7.87	108.95	105.80
1	A	990	G	C4'-C3'-C2'	-7.87	94.73	102.60
1	A	18	C	N1-C2-O2	7.86	123.62	118.90
1	A	534	G	C4-C5-N7	7.86	113.95	110.80
1	A	1050	C	OP1-P-O3'	7.86	122.50	105.20
1	A	2551	G	N1-C6-O6	7.86	124.62	119.90
1	A	1290	G	OP2-P-O3'	7.86	122.50	105.20
1	A	1844	G	C4-C5-N7	7.86	113.94	110.80
1	A	1058	U	N3-C2-O2	-7.86	116.70	122.20
1	A	1374	G	C5-C6-O6	7.86	133.32	128.60
1	A	2061	U	N1-C2-O2	7.86	128.30	122.80
1	A	2888	A	C6-C5-N7	7.86	137.80	132.30
1	A	2477	A	C5-C6-N1	-7.86	113.77	117.70
1	A	342	A	N7-C8-N9	7.86	117.73	113.80
1	A	633	A	C6-C5-N7	-7.86	126.80	132.30
1	A	2030	A	N1-C2-N3	-7.86	125.37	129.30
1	A	2544	C	N3-C4-C5	7.86	125.04	121.90
1	A	467	U	N1-C1'-C2'	7.86	124.21	114.00
1	A	119	U	N1-C1'-C2'	7.85	124.21	114.00
1	A	381	G	C4-C5-C6	7.85	123.51	118.80
1	A	1026	C	N3-C4-N4	7.85	123.50	118.00
1	A	1162	C	C5'-C4'-O4'	7.85	118.52	109.10
1	A	265	A	C8-N9-C1'	7.85	141.83	127.70
1	A	882	C	N3-C4-N4	-7.84	112.51	118.00
1	A	595	G	C5'-C4'-O4'	7.84	118.51	109.10
1	A	967	C	N1-C2-N3	7.84	124.69	119.20
1	A	2805	A	N7-C8-N9	7.84	117.72	113.80
1	A	860	U	O4'-C1'-N1	7.84	114.47	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	897	A	C5-N7-C8	-7.84	99.98	103.90
1	A	950	A	C5-C6-N1	7.84	121.62	117.70
1	A	1706	U	N3-C2-O2	-7.84	116.71	122.20
31	a	1261	A	N7-C8-N9	7.84	117.72	113.80
1	A	2249	G	C8-N9-C1'	-7.84	116.81	127.00
1	A	2385	A	N1-C6-N6	-7.84	113.90	118.60
1	A	2427	G	N3-C4-C5	-7.83	124.68	128.60
1	A	632	U	O4'-C1'-N1	7.83	114.47	108.20
1	A	2904	U	C6-N1-C2	-7.83	116.30	121.00
1	A	13	A	N7-C8-N9	7.83	117.72	113.80
1	A	554	C	C6-N1-C1'	7.83	130.20	120.80
1	A	2747	U	N1-C2-O2	7.83	128.28	122.80
1	A	2840	A	C4-C5-N7	7.83	114.62	110.70
31	a	772	C	C5-C6-N1	7.83	124.92	121.00
1	A	997	G	C8-N9-C4	7.83	109.53	106.40
1	A	1242	A	N1-C6-N6	-7.83	113.90	118.60
31	a	522	C	C6-N1-C2	-7.83	117.17	120.30
1	A	1001	A	P-O3'-C3'	7.83	129.09	119.70
1	A	1434	U	N1-C2-N3	7.83	119.59	114.90
1	A	2084	G	C4-N9-C1'	7.83	136.67	126.50
31	a	1247	C	C6-N1-C2	-7.83	117.17	120.30
1	A	1395	G	N9-C4-C5	-7.82	102.27	105.40
1	A	201	C	O4'-C1'-N1	7.82	114.46	108.20
1	A	229	A	C4-C5-N7	7.82	114.61	110.70
1	A	422	G	N3-C4-N9	-7.82	121.31	126.00
1	A	24	G	N3-C2-N2	-7.82	114.43	119.90
31	a	1247	C	N3-C2-O2	-7.82	116.43	121.90
31	a	1340	U	O5'-P-OP2	-7.82	98.66	105.70
1	A	175	C	C4-C5-C6	7.82	121.31	117.40
1	A	1606	C	C2-N3-C4	-7.82	115.99	119.90
1	A	470	G	N9-C4-C5	7.81	108.53	105.40
1	A	603	C	C5-C6-N1	7.81	124.91	121.00
1	A	1200	A	N1-C6-N6	7.81	123.29	118.60
1	A	2473	G	N1-C2-N3	7.81	128.59	123.90
1	A	999	U	C2-N3-C4	-7.81	122.31	127.00
1	A	2442	G	O4'-C1'-N9	7.81	114.45	108.20
1	A	2867	U	N3-C4-O4	-7.81	113.93	119.40
1	A	1429	G	N3-C4-N9	7.81	130.69	126.00
1	A	28	A	C5-C6-N1	7.81	121.60	117.70
1	A	2009	U	C6-N1-C2	-7.81	116.32	121.00
1	A	2516	G	C8-N9-C1'	-7.81	116.85	127.00
1	A	2438	A	C4-C5-N7	7.81	114.60	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	a	1469	C	C6-N1-C2	-7.81	117.18	120.30
1	A	1188	A	C4-C5-N7	7.80	114.60	110.70
1	A	1833	C	C6-N1-C2	-7.80	117.18	120.30
1	A	2457	A	C4-C5-N7	7.80	114.60	110.70
1	A	68	A	C5-N7-C8	-7.80	100.00	103.90
1	A	427	A	C8-N9-C1'	7.80	141.75	127.70
1	A	520	G	O5'-P-OP1	-7.80	98.68	105.70
1	A	26	G	O4'-C1'-N9	7.80	114.44	108.20
1	A	666	A	O4'-C1'-N9	7.80	114.44	108.20
1	A	908	A	C2-N3-C4	7.80	114.50	110.60
1	A	1225	G	C6-N1-C2	-7.80	120.42	125.10
1	A	640	G	O5'-P-OP1	7.80	120.06	110.70
1	A	863	G	N3-C4-C5	7.80	132.50	128.60
1	A	2665	G	C5-C6-O6	-7.80	123.92	128.60
1	A	2800	U	C2-N1-C1'	-7.80	108.34	117.70
1	A	1254	C	N3-C4-N4	7.80	123.46	118.00
1	A	2019	G	N7-C8-N9	7.80	117.00	113.10
1	A	422	G	C5-C6-O6	7.79	133.28	128.60
1	A	493	A	C2-N3-C4	7.79	114.50	110.60
1	A	2898	U	N1-C1'-C2'	7.79	124.13	114.00
1	A	1457	U	C5-C6-N1	7.79	126.59	122.70
1	A	2326	G	C8-N9-C1'	-7.79	116.87	127.00
1	A	178	A	C5-C6-N6	-7.79	117.47	123.70
1	A	614	U	O4'-C1'-N1	7.79	114.43	108.20
1	A	1290	G	N3-C4-C5	-7.79	124.71	128.60
1	A	584	G	C5-C6-N1	7.78	115.39	111.50
1	A	1257	G	C8-N9-C4	7.78	109.51	106.40
1	A	2277	G	C5-C6-N1	7.78	115.39	111.50
1	A	2648	G	O5'-P-OP2	-7.78	98.69	105.70
31	a	745	U	OP2-P-O3'	-7.78	88.08	105.20
1	A	535	G	C8-N9-C4	-7.78	103.29	106.40
1	A	1065	A	N3-C4-C5	7.78	132.25	126.80
1	A	2304	G	C5-C6-N1	7.78	115.39	111.50
1	A	472	C	C2-N1-C1'	7.78	127.36	118.80
1	A	967	C	N3-C2-O2	-7.78	116.45	121.90
1	A	1287	U	N3-C2-O2	-7.78	116.75	122.20
1	A	2483	C	N3-C4-C5	-7.78	118.79	121.90
1	A	69	C	C5'-C4'-O4'	7.78	118.43	109.10
1	A	695	C	C6-N1-C2	-7.78	117.19	120.30
31	a	216	G	N3-C4-C5	-7.78	124.71	128.60
1	A	2273	G	N1-C2-N2	-7.77	109.20	116.20
1	A	2519	U	C4'-C3'-O3'	7.77	128.55	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1853	C	N3-C4-C5	7.77	125.01	121.90
1	A	988	C	C2-N1-C1'	7.77	127.35	118.80
1	A	1697	G	C4-C5-N7	7.77	113.91	110.80
31	a	55	C	N3-C2-O2	-7.77	116.46	121.90
1	A	496	G	N3-C2-N2	-7.76	114.47	119.90
1	A	503	A	N3-C4-C5	7.76	132.24	126.80
1	A	1083	G	C4-C5-N7	-7.76	107.69	110.80
1	A	17	G	N9-C4-C5	-7.76	102.30	105.40
1	A	1182	G	C4-C5-N7	7.76	113.91	110.80
1	A	113	U	C2-N1-C1'	7.76	127.02	117.70
1	A	491	C	N3-C2-O2	-7.76	116.47	121.90
1	A	2028	A	C2-N3-C4	7.76	114.48	110.60
1	A	890	G	C2-N3-C4	-7.76	108.02	111.90
1	A	1625	U	N1-C2-O2	7.76	128.23	122.80
1	A	2834	C	N1-C2-O2	7.76	123.55	118.90
1	A	443	U	C5-C4-O4	7.75	130.55	125.90
1	A	2391	C	C2-N3-C4	7.75	123.78	119.90
1	A	362	C	C2-N1-C1'	-7.75	110.27	118.80
1	A	861	C	N3-C2-O2	-7.75	116.47	121.90
1	A	1228	A	C4-C5-C6	7.75	120.88	117.00
1	A	1499	U	N3-C2-O2	-7.75	116.77	122.20
1	A	2453	A	C8-N9-C4	-7.75	102.70	105.80
1	A	45	G	N3-C4-N9	7.75	130.65	126.00
1	A	608	C	O4'-C1'-N1	7.75	114.40	108.20
1	A	1298	G	C5'-C4'-O4'	7.75	118.40	109.10
31	a	1131	C	N1-C2-O2	7.75	123.55	118.90
1	A	953	C	N3-C2-O2	-7.75	116.47	121.90
1	A	1204	G	N3-C4-N9	-7.75	121.35	126.00
1	A	48	G	N3-C4-C5	-7.75	124.73	128.60
1	A	470	G	N1-C6-O6	-7.75	115.25	119.90
31	a	1392	C	N3-C2-O2	-7.75	116.48	121.90
1	A	381	G	N7-C8-N9	7.75	116.97	113.10
1	A	1206	G	C8-N9-C4	-7.75	103.30	106.40
1	A	709	U	N3-C2-O2	-7.74	116.78	122.20
1	A	975	U	N1-C2-O2	-7.74	117.38	122.80
1	A	991	A	O5'-P-OP1	7.74	119.99	110.70
2	B	24	C	C6-N1-C2	-7.74	117.20	120.30
1	A	1258	A	O4'-C1'-N9	-7.74	102.01	108.20
1	A	2058	A	C6-C5-N7	-7.74	126.88	132.30
1	A	2830	A	C5-C6-N1	-7.74	113.83	117.70
1	A	600	U	N3-C2-O2	7.74	127.62	122.20
1	A	2396	A	C8-N9-C4	-7.74	102.70	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	37	C	N1-C2-O2	7.74	123.54	118.90
1	A	584	G	C5-C6-O6	7.74	133.24	128.60
1	A	1259	U	OP2-P-O3'	7.74	122.22	105.20
1	A	2017	C	C2-N3-C4	-7.74	116.03	119.90
1	A	819	A	N1-C6-N6	-7.74	113.96	118.60
1	A	1014	U	N3-C2-O2	7.73	127.61	122.20
1	A	1250	G	C6-N1-C2	-7.73	120.46	125.10
1	A	2869	G	P-O3'-C3'	7.73	128.98	119.70
1	A	1199	A	C5-N7-C8	-7.73	100.03	103.90
1	A	1797	G	N3-C2-N2	-7.73	114.49	119.90
1	A	2296	A	C8-N9-C4	-7.73	102.71	105.80
1	A	2318	U	N3-C2-O2	-7.73	116.79	122.20
1	A	1016	G	N1-C2-N3	7.73	128.54	123.90
1	A	2442	G	C8-N9-C1'	-7.73	116.95	127.00
1	A	2766	U	N3-C2-O2	-7.73	116.79	122.20
1	A	1004	A	O5'-P-OP2	7.73	119.97	110.70
1	A	2363	A	N7-C8-N9	7.73	117.66	113.80
1	A	600	U	OP2-P-O3'	7.72	122.19	105.20
1	A	656	G	C6-C5-N7	-7.72	125.77	130.40
1	A	2062	G	N9-C4-C5	7.72	108.49	105.40
1	A	2860	U	C6-N1-C1'	-7.72	110.39	121.20
1	A	24	G	C5-N7-C8	-7.72	100.44	104.30
1	A	901	G	C4-N9-C1'	-7.72	116.46	126.50
1	A	262	G	C4-C5-N7	7.72	113.89	110.80
1	A	949	C	C6-N1-C2	-7.72	117.21	120.30
1	A	1065	A	O5'-P-OP1	-7.72	98.75	105.70
1	A	2078	A	N7-C8-N9	7.72	117.66	113.80
1	A	977	A	N7-C8-N9	7.72	117.66	113.80
1	A	994	A	N9-C4-C5	-7.72	102.71	105.80
1	A	1197	C	C5-C4-N4	-7.72	114.80	120.20
1	A	175	C	N3-C2-O2	-7.71	116.50	121.90
1	A	1045	A	N9-C4-C5	-7.71	102.71	105.80
1	A	1224	U	N3-C4-O4	-7.71	114.00	119.40
1	A	1742	A	C5-C6-N1	7.71	121.56	117.70
1	A	2762	G	O5'-P-OP2	-7.71	98.76	105.70
1	A	2477	A	C4-C5-N7	7.71	114.56	110.70
1	A	1176	U	C6-N1-C1'	-7.71	110.40	121.20
1	A	960	C	O4'-C1'-N1	7.71	114.37	108.20
1	A	2078	A	C4-C5-C6	7.71	120.85	117.00
1	A	2568	A	N3-C4-N9	7.71	133.57	127.40
1	A	2803	A	C2-N3-C4	7.71	114.45	110.60
1	A	597	U	N3-C4-O4	7.70	124.79	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1415	A	N1-C2-N3	-7.70	125.45	129.30
1	A	1003	A	OP2-P-O3'	-7.70	88.26	105.20
1	A	2669	G	N3-C2-N2	-7.70	114.51	119.90
1	A	2699	U	N3-C4-O4	7.70	124.79	119.40
1	A	442	G	C5-C6-O6	7.70	133.22	128.60
1	A	497	U	C5'-C4'-O4'	7.70	118.34	109.10
1	A	2530	A	N1-C2-N3	-7.70	125.45	129.30
1	A	2857	A	C2-N3-C4	-7.70	106.75	110.60
1	A	346	A	C5-C6-N6	-7.70	117.54	123.70
1	A	1357	G	N3-C4-N9	7.70	130.62	126.00
1	A	884	U	N3-C4-O4	7.70	124.79	119.40
1	A	896	U	N3-C4-O4	-7.70	114.01	119.40
1	A	1045	A	C4-C5-N7	7.70	114.55	110.70
1	A	2045	A	C6-N1-C2	-7.70	113.98	118.60
1	A	2812	U	OP1-P-OP2	-7.70	108.06	119.60
1	A	1046	G	C5-C6-O6	-7.69	123.98	128.60
1	A	571	A	C8-N9-C1'	7.69	141.54	127.70
1	A	357	U	C5-C4-O4	-7.69	121.29	125.90
1	A	362	C	C6-N1-C2	-7.69	117.22	120.30
1	A	1023	A	O5'-P-OP1	-7.69	98.78	105.70
1	A	1082	C	C6-N1-C2	-7.69	117.22	120.30
1	A	2761	C	O5'-P-OP2	-7.69	98.78	105.70
1	A	265	A	C4-N9-C1'	-7.69	112.46	126.30
1	A	473	U	N3-C2-O2	-7.69	116.82	122.20
1	A	2596	G	O4'-C1'-N9	7.69	114.35	108.20
1	A	2570	G	N7-C8-N9	7.69	116.94	113.10
1	A	116	G	C8-N9-C4	-7.68	103.33	106.40
1	A	298	U	C5-C4-O4	7.68	130.51	125.90
1	A	563	G	N9-C4-C5	-7.68	102.33	105.40
1	A	365	A	C4-C5-N7	7.68	114.54	110.70
1	A	1236	G	C4-C5-C6	7.68	123.41	118.80
1	A	1297	G	N9-C4-C5	-7.68	102.33	105.40
1	A	2395	C	O4'-C1'-N1	7.68	114.34	108.20
1	A	2583	C	C6-N1-C2	-7.68	117.23	120.30
1	A	943	C	C6-N1-C2	-7.68	117.23	120.30
1	A	2518	U	C4-C5-C6	7.68	124.31	119.70
1	A	949	C	C2-N1-C1'	7.68	127.24	118.80
1	A	978	A	N9-C4-C5	-7.68	102.73	105.80
1	A	1024	A	N1-C6-N6	-7.68	113.99	118.60
1	A	1355	A	N3-C4-N9	-7.68	121.26	127.40
1	A	2662	U	O5'-P-OP1	-7.68	98.79	105.70
1	A	2460	A	C5-C6-N1	7.67	121.54	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2738	A	O5'-P-OP1	-7.67	98.79	105.70
1	A	428	G	C5-C6-O6	7.67	133.20	128.60
1	A	1262	U	C6-N1-C1'	7.67	131.94	121.20
1	A	2391	C	C5-C6-N1	7.67	124.83	121.00
1	A	2598	U	N3-C4-O4	-7.67	114.03	119.40
31	a	336	C	N1-C2-O2	7.67	123.50	118.90
1	A	348	C	N3-C4-C5	7.67	124.97	121.90
1	A	2090	C	C4-C5-C6	-7.67	113.57	117.40
1	A	1236	G	C4-N9-C1'	7.67	136.47	126.50
1	A	896	U	P-O3'-C3'	7.67	128.90	119.70
1	A	373	A	OP1-P-OP2	-7.66	108.11	119.60
1	A	1053	A	C5-C6-N1	7.66	121.53	117.70
1	A	1302	G	P-O3'-C3'	7.66	128.90	119.70
1	A	1271	G	C4-C5-C6	-7.66	114.20	118.80
1	A	2520	U	C5-C6-N1	-7.66	118.87	122.70
1	A	2576	G	C8-N9-C4	-7.66	103.34	106.40
1	A	1374	G	C4-C5-C6	7.66	123.39	118.80
1	A	365	A	N3-C4-C5	7.66	132.16	126.80
1	A	2029	G	C6-C5-N7	7.66	134.99	130.40
1	A	1689	G	N1-C6-O6	-7.65	115.31	119.90
1	A	2747	U	O5'-P-OP1	-7.65	98.81	105.70
31	a	797	U	N3-C2-O2	-7.65	116.84	122.20
1	A	1487	G	N1-C6-O6	-7.65	115.31	119.90
1	A	849	A	C4-C5-C6	-7.65	113.17	117.00
1	A	2665	G	N3-C2-N2	-7.65	114.55	119.90
1	A	606	G	C5-N7-C8	-7.65	100.47	104.30
1	A	2061	U	C6-N1-C1'	-7.65	110.49	121.20
1	A	2493	C	C6-N1-C2	-7.65	117.24	120.30
1	A	1023	A	OP1-P-OP2	-7.65	108.13	119.60
1	A	1248	U	C2-N1-C1'	-7.65	108.52	117.70
1	A	1372	C	C6-N1-C1'	7.65	129.97	120.80
1	A	2477	A	C6-C5-N7	-7.65	126.95	132.30
31	a	1449	G	N3-C4-N9	-7.65	121.41	126.00
31	a	1451	G	C4-N9-C1'	7.65	136.44	126.50
1	A	90	A	C8-N9-C4	-7.64	102.74	105.80
1	A	850	G	C8-N9-C4	-7.64	103.34	106.40
1	A	1254	C	N1-C2-O2	7.64	123.49	118.90
1	A	380	U	N3-C4-O4	-7.64	114.05	119.40
1	A	566	U	N3-C4-O4	-7.64	114.05	119.40
1	A	2060	A	N1-C2-N3	-7.64	125.48	129.30
1	A	2099	G	C5-C6-N1	7.64	115.32	111.50
1	A	2869	G	N3-C4-N9	7.64	130.59	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	595	G	N7-C8-N9	7.64	116.92	113.10
1	A	900	G	C4-C5-C6	-7.64	114.22	118.80
1	A	2033	C	C5-C6-N1	7.63	124.82	121.00
1	A	2561	C	N3-C4-C5	7.63	124.95	121.90
1	A	995	U	P-O3'-C3'	7.63	128.86	119.70
1	A	428	G	N7-C8-N9	7.63	116.92	113.10
1	A	548	A	C5-C6-N1	-7.63	113.89	117.70
1	A	562	C	N3-C2-O2	-7.63	116.56	121.90
1	A	628	G	N1-C2-N2	-7.63	109.33	116.20
31	a	502	C	N3-C2-O2	-7.63	116.56	121.90
1	A	354	A	N1-C2-N3	7.62	133.11	129.30
1	A	256	C	C6-N1-C2	-7.62	117.25	120.30
1	A	523	A	N9-C4-C5	-7.62	102.75	105.80
1	A	965	G	C8-N9-C4	-7.62	103.35	106.40
1	A	2321	C	C4-C5-C6	-7.62	113.59	117.40
1	A	2339	U	N1-C2-O2	7.62	128.14	122.80
1	A	2673	C	C5-C6-N1	7.62	124.81	121.00
1	A	346	A	N1-C2-N3	-7.62	125.49	129.30
1	A	48	G	OP2-P-O3'	7.62	121.96	105.20
1	A	150	A	C5-C6-N1	7.62	121.51	117.70
1	A	2381	A	N3-C4-N9	7.62	133.50	127.40
1	A	849	A	C8-N9-C4	7.62	108.85	105.80
1	A	2025	A	N1-C6-N6	7.62	123.17	118.60
1	A	2086	A	N1-C2-N3	-7.62	125.49	129.30
1	A	1054	A	O4'-C1'-N9	7.62	114.29	108.20
1	A	1252	A	C5-N7-C8	-7.62	100.09	103.90
1	A	2108	U	N1-C2-O2	7.62	128.13	122.80
1	A	2613	C	N3-C4-C5	7.61	124.94	121.90
1	A	341	G	N3-C4-C5	-7.61	124.80	128.60
1	A	367	A	C5-C6-N1	7.61	121.50	117.70
1	A	567	G	N3-C4-C5	-7.61	124.80	128.60
1	A	1042	C	N3-C2-O2	-7.61	116.58	121.90
1	A	2013	G	C5-C6-N1	7.61	115.30	111.50
1	A	1059	A	C6-N1-C2	-7.61	114.04	118.60
1	A	2917	U	O4'-C1'-N1	7.61	114.28	108.20
1	A	642	U	N1-C2-O2	7.60	128.12	122.80
1	A	2054	G	C4-C5-C6	-7.60	114.24	118.80
1	A	2084	G	C5-C6-O6	7.60	133.16	128.60
1	A	36	G	O4'-C1'-N9	7.60	114.28	108.20
1	A	869	G	C5-N7-C8	-7.60	100.50	104.30
1	A	757	G	N3-C4-C5	-7.60	124.80	128.60
1	A	953	C	C2-N1-C1'	7.60	127.16	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2664	U	N1-C1'-C2'	7.60	123.88	114.00
1	A	712	U	N3-C4-C5	7.60	119.16	114.60
1	A	892	U	N3-C2-O2	-7.60	116.88	122.20
1	A	2814	C	N3-C4-N4	-7.60	112.68	118.00
1	A	1176	U	C2-N1-C1'	7.59	126.81	117.70
1	A	2449	C	N1-C2-O2	7.59	123.46	118.90
2	B	87	C	N1-C2-O2	7.59	123.46	118.90
1	A	967	C	C6-N1-C1'	7.59	129.91	120.80
31	a	772	C	C6-N1-C2	-7.59	117.26	120.30
1	A	416	G	N1-C6-O6	-7.59	115.34	119.90
1	A	478	A	C4-C5-N7	7.59	114.50	110.70
1	A	2796	C	C6-N1-C2	-7.59	117.26	120.30
1	A	638	U	C5-C6-N1	7.59	126.50	122.70
1	A	882	C	N1-C2-N3	7.59	124.51	119.20
1	A	1073	A	C5-C6-N6	-7.59	117.63	123.70
1	A	1767	G	C5-C6-O6	-7.59	124.05	128.60
1	A	2024	A	N7-C8-N9	7.59	117.59	113.80
1	A	382	U	C6-N1-C2	-7.59	116.45	121.00
1	A	824	A	C5-C6-N1	7.59	121.49	117.70
1	A	151	U	N3-C4-O4	7.58	124.71	119.40
1	A	547	A	C4-C5-C6	7.58	120.79	117.00
1	A	2273	G	C4-N9-C1'	7.58	136.36	126.50
1	A	2550	G	OP1-P-O3'	7.58	121.88	105.20
1	A	240	C	C5-C6-N1	7.58	124.79	121.00
1	A	374	U	N1-C2-N3	7.58	119.45	114.90
1	A	1265	G	O5'-P-OP1	7.58	119.80	110.70
1	A	2076	A	N1-C2-N3	7.58	133.09	129.30
1	A	152	C	N1-C2-O2	7.58	123.45	118.90
1	A	1007	U	C5-C4-O4	7.58	130.45	125.90
1	A	2064	A	C5'-C4'-O4'	-7.58	100.01	109.10
1	A	2090	C	C6-N1-C1'	-7.58	111.71	120.80
1	A	2382	C	C4-C5-C6	-7.58	113.61	117.40
1	A	500	A	C2-N3-C4	7.58	114.39	110.60
1	A	253	G	C5-C6-N1	7.58	115.29	111.50
1	A	599	A	C4-C5-C6	7.58	120.79	117.00
1	A	997	G	C5-C6-O6	-7.58	124.06	128.60
1	A	2291	C	N3-C4-C5	7.58	124.93	121.90
1	A	1231	A	C5-C6-N6	-7.57	117.64	123.70
1	A	2375	U	N3-C4-O4	-7.57	114.10	119.40
1	A	1029	C	C2-N3-C4	7.57	123.69	119.90
1	A	1188	A	N3-C4-N9	7.57	133.46	127.40
1	A	1256	U	O5'-P-OP1	-7.57	98.89	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	a	99	U	O4'-C1'-N1	7.57	114.26	108.20
1	A	202	A	C5-C6-N6	7.57	129.75	123.70
1	A	1014	U	N3-C4-C5	-7.57	110.06	114.60
1	A	2314	A	C6-C5-N7	-7.57	127.00	132.30
1	A	352	A	C6-C5-N7	7.57	137.59	132.30
1	A	2283	G	C5-N7-C8	-7.57	100.52	104.30
1	A	2608	G	C8-N9-C1'	-7.57	117.17	127.00
1	A	2886	G	N9-C4-C5	-7.57	102.37	105.40
1	A	373	A	C8-N9-C1'	-7.56	114.08	127.70
1	A	543	G	N3-C4-N9	-7.56	121.46	126.00
1	A	2527	U	OP1-P-OP2	-7.56	108.25	119.60
1	A	1023	A	O4'-C4'-C3'	-7.56	96.44	104.00
1	A	30	G	N3-C4-C5	7.56	132.38	128.60
1	A	253	G	N1-C2-N2	7.56	123.00	116.20
31	a	502	C	N1-C2-O2	7.56	123.43	118.90
1	A	1005	G	C6-N1-C2	-7.56	120.57	125.10
1	A	476	A	OP1-P-O3'	7.55	121.81	105.20
1	A	1017	A	O5'-P-OP1	7.55	119.76	110.70
1	A	1682	C	C2-N3-C4	-7.55	116.12	119.90
1	A	2545	A	O5'-P-OP2	-7.55	98.90	105.70
1	A	368	A	N1-C2-N3	-7.55	125.53	129.30
1	A	2568	A	C5-N7-C8	-7.55	100.12	103.90
1	A	608	C	C5'-C4'-O4'	7.55	118.16	109.10
1	A	1357	G	N3-C4-C5	-7.55	124.83	128.60
1	A	803	C	C6-N1-C2	-7.55	117.28	120.30
1	A	879	U	N3-C2-O2	-7.55	116.92	122.20
1	A	2444	C	C6-N1-C2	-7.55	117.28	120.30
31	a	338	C	N1-C2-O2	7.55	123.43	118.90
1	A	2497	G	C4-C5-C6	7.54	123.33	118.80
1	A	86	C	C2-N3-C4	-7.54	116.13	119.90
1	A	127	C	C6-N1-C2	-7.54	117.28	120.30
1	A	638	U	N3-C2-O2	-7.54	116.92	122.20
1	A	2361	U	C6-N1-C1'	-7.54	110.64	121.20
1	A	24	G	N1-C2-N3	-7.54	119.38	123.90
1	A	617	A	OP1-P-O3'	7.54	121.79	105.20
1	A	954	A	C8-N9-C1'	-7.54	114.13	127.70
1	A	1649	C	N3-C4-C5	7.54	124.92	121.90
1	A	2057	A	C6-N1-C2	-7.54	114.08	118.60
1	A	494	U	C2-N3-C4	7.54	131.52	127.00
1	A	2654	G	N7-C8-N9	7.54	116.87	113.10
31	a	267	G	C4-N9-C1'	7.54	136.30	126.50
1	A	999	U	C6-N1-C2	-7.54	116.48	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1696	C	C5-C4-N4	7.54	125.48	120.20
1	A	45	G	C5-C6-N1	-7.54	107.73	111.50
1	A	915	U	N3-C2-O2	-7.54	116.92	122.20
1	A	1009	C	O5'-P-OP2	-7.54	98.92	105.70
1	A	957	C	C5-C6-N1	7.53	124.77	121.00
1	A	667	G	N1-C6-O6	7.53	124.42	119.90
1	A	1261	G	C8-N9-C4	7.53	109.41	106.40
1	A	2320	C	N1-C1'-C2'	7.53	123.79	114.00
1	A	2577	G	C5-N7-C8	-7.53	100.53	104.30
1	A	2090	C	O4'-C1'-N1	-7.53	102.17	108.20
1	A	2830	A	C8-N9-C1'	7.53	141.26	127.70
1	A	38	A	O5'-P-OP1	-7.53	98.92	105.70
1	A	2643	C	C6-N1-C1'	-7.53	111.77	120.80
1	A	44	A	N9-C4-C5	-7.53	102.79	105.80
1	A	2518	U	N3-C4-C5	-7.53	110.08	114.60
1	A	428	G	C4-N9-C1'	-7.53	116.72	126.50
1	A	2561	C	N3-C4-N4	-7.53	112.73	118.00
1	A	958	U	C2-N3-C4	-7.52	122.48	127.00
1	A	2800	U	C6-N1-C2	7.52	125.51	121.00
1	A	493	A	N7-C8-N9	7.52	117.56	113.80
1	A	2042	A	N1-C6-N6	7.52	123.11	118.60
1	A	496	G	N3-C4-C5	-7.52	124.84	128.60
1	A	1844	G	C5-N7-C8	-7.52	100.54	104.30
1	A	292	U	C5-C6-N1	7.52	126.46	122.70
1	A	501	C	O5'-P-OP2	-7.51	98.94	105.70
1	A	867	U	C5-C4-O4	7.51	130.41	125.90
1	A	566	U	C2-N1-C1'	7.51	126.72	117.70
1	A	1020	G	N1-C2-N3	7.51	128.41	123.90
1	A	2917	U	N1-C2-N3	7.51	119.41	114.90
1	A	857	C	N1-C2-N3	7.51	124.46	119.20
1	A	1205	U	C5-C6-N1	-7.51	118.94	122.70
1	A	2727	G	C5-C6-N1	7.51	115.25	111.50
1	A	2758	G	N1-C2-N2	-7.51	109.44	116.20
1	A	1487	G	O4'-C1'-N9	7.51	114.21	108.20
1	A	212	C	C5-C6-N1	7.51	124.75	121.00
1	A	1073	A	N1-C6-N6	7.51	123.10	118.60
1	A	182	C	N3-C2-O2	-7.50	116.65	121.90
1	A	488	G	C8-N9-C1'	7.50	136.76	127.00
1	A	1647	A	C8-N9-C4	-7.50	102.80	105.80
1	A	352	A	N7-C8-N9	7.50	117.55	113.80
1	A	2020	U	N1-C2-O2	7.50	128.05	122.80
1	A	2070	C	N3-C2-O2	-7.50	116.65	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	868	A	C5-C6-N1	7.50	121.45	117.70
1	A	2685	C	C2-N3-C4	7.50	123.65	119.90
1	A	996	G	C6-N1-C2	7.50	129.60	125.10
1	A	2065	G	N3-C4-C5	7.50	132.35	128.60
1	A	29	U	C6-N1-C2	-7.50	116.50	121.00
1	A	2827	A	C2-N3-C4	7.50	114.35	110.60
1	A	994	A	N3-C4-C5	7.49	132.04	126.80
1	A	1736	U	N3-C2-O2	-7.49	116.95	122.20
1	A	863	G	N1-C2-N3	7.49	128.40	123.90
1	A	428	G	C4-C5-C6	-7.49	114.31	118.80
1	A	2082	C	OP1-P-O3'	-7.49	88.72	105.20
1	A	620	G	C5-C6-O6	7.49	133.09	128.60
2	B	76	A	N9-C4-C5	-7.49	102.81	105.80
1	A	174	U	C5-C6-N1	7.49	126.44	122.70
1	A	350	G	C5-N7-C8	-7.49	100.56	104.30
1	A	628	G	C8-N9-C4	-7.49	103.41	106.40
1	A	947	U	N3-C2-O2	-7.49	116.96	122.20
1	A	1364	C	N1-C1'-C2'	7.49	123.73	114.00
31	a	302	C	N1-C2-O2	7.48	123.39	118.90
1	A	1695	G	C8-N9-C4	-7.48	103.41	106.40
1	A	2045	A	C4-N9-C1'	7.48	139.77	126.30
1	A	177	G	N3-C4-C5	-7.48	124.86	128.60
1	A	613	G	C5-C6-O6	7.48	133.09	128.60
1	A	2758	G	N3-C4-C5	7.48	132.34	128.60
1	A	2792	A	N3-C4-N9	7.48	133.38	127.40
1	A	1389	U	N3-C2-O2	-7.47	116.97	122.20
1	A	2528	C	C6-N1-C1'	7.47	129.77	120.80
1	A	2613	C	C2-N3-C4	-7.47	116.16	119.90
1	A	222	A	O4'-C1'-N9	7.47	114.18	108.20
1	A	961	G	C6-C5-N7	-7.47	125.92	130.40
1	A	29	U	N1-C2-N3	7.47	119.38	114.90
1	A	2675	G	N3-C4-C5	-7.47	124.86	128.60
1	A	483	C	N1-C2-O2	7.47	123.38	118.90
1	A	1241	A	N9-C1'-C2'	-7.47	103.78	112.00
1	A	225	A	OP2-P-O3'	7.47	121.63	105.20
1	A	987	U	P-O3'-C3'	7.47	128.66	119.70
2	B	7	G	N1-C6-O6	7.47	124.38	119.90
1	A	996	G	C4-N9-C1'	7.46	136.20	126.50
1	A	1015	C	C2-N1-C1'	7.46	127.01	118.80
1	A	1296	C	C2-N3-C4	-7.46	116.17	119.90
1	A	2029	G	C6-N1-C2	-7.46	120.62	125.10
1	A	2319	U	C4-C5-C6	7.46	124.18	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2762	G	C4-N9-C1'	-7.46	116.81	126.50
1	A	639	U	C5'-C4'-O4'	-7.46	100.15	109.10
1	A	197	G	C6-N1-C2	-7.45	120.63	125.10
1	A	1654	A	C6-C5-N7	-7.45	127.08	132.30
1	A	2375	U	N1-C2-N3	7.45	119.37	114.90
1	A	2097	G	N7-C8-N9	7.45	116.83	113.10
1	A	1251	A	OP1-P-O3'	7.45	121.59	105.20
1	A	1429	G	N9-C4-C5	-7.45	102.42	105.40
1	A	2804	G	N9-C4-C5	7.45	108.38	105.40
1	A	721	A	C5-C6-N1	-7.45	113.98	117.70
1	A	1028	G	C8-N9-C1'	-7.45	117.32	127.00
1	A	1031	C	C6-N1-C1'	7.45	129.74	120.80
1	A	1360	G	O4'-C1'-N9	7.45	114.16	108.20
1	A	198	A	C5-N7-C8	-7.45	100.18	103.90
1	A	615	A	OP2-P-O3'	7.45	121.58	105.20
1	A	900	G	C8-N9-C1'	7.45	136.68	127.00
1	A	2283	G	N1-C2-N2	-7.45	109.50	116.20
1	A	846	G	C5-N7-C8	7.44	108.02	104.30
1	A	874	A	C5-N7-C8	-7.44	100.18	103.90
1	A	2547	C	C2-N1-C1'	7.44	126.99	118.80
1	A	2650	G	C6-C5-N7	-7.44	125.93	130.40
31	a	902	C	C6-N1-C1'	-7.44	111.87	120.80
1	A	631	U	C6-N1-C2	-7.44	116.53	121.00
1	A	2481	G	C2-N3-C4	-7.44	108.18	111.90
1	A	1324	A	C5-N7-C8	7.44	107.62	103.90
1	A	1689	G	C5-C6-N1	7.44	115.22	111.50
1	A	2800	U	C5-C4-O4	-7.44	121.44	125.90
1	A	633	A	C6-N1-C2	7.44	123.06	118.60
1	A	19	G	C4-C5-N7	7.43	113.77	110.80
1	A	909	G	N3-C2-N2	7.43	125.10	119.90
1	A	1726	A	C6-N1-C2	-7.43	114.14	118.60
1	A	2488	C	C6-N1-C1'	-7.43	111.88	120.80
1	A	2604	A	N9-C4-C5	7.43	108.77	105.80
1	A	429	C	N3-C4-C5	7.43	124.87	121.90
1	A	466	C	C6-N1-C2	-7.43	117.33	120.30
1	A	713	A	OP2-P-O3'	7.43	121.55	105.20
1	A	2346	U	N3-C2-O2	-7.43	117.00	122.20
1	A	2645	G	N3-C4-C5	-7.43	124.89	128.60
1	A	2362	A	N1-C6-N6	7.43	123.06	118.60
1	A	44	A	C5-C6-N1	7.43	121.41	117.70
1	A	864	A	C4-C5-N7	-7.43	106.99	110.70
1	A	1290	G	C8-N9-C4	-7.43	103.43	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2078	A	C6-C5-N7	-7.43	127.10	132.30
1	A	2099	G	C5-C6-O6	-7.43	124.14	128.60
1	A	28	A	OP1-P-OP2	7.42	130.74	119.60
1	A	846	G	C8-N9-C4	-7.42	103.43	106.40
1	A	869	G	C4-C5-N7	7.42	113.77	110.80
1	A	2094	G	N9-C4-C5	7.42	108.37	105.40
1	A	221	G	C2-N3-C4	-7.42	108.19	111.90
1	A	462	U	C2-N3-C4	7.42	131.45	127.00
1	A	1947	C	C6-N1-C2	-7.42	117.33	120.30
1	A	58	G	N1-C6-O6	-7.41	115.45	119.90
1	A	568	C	C2-N1-C1'	7.41	126.95	118.80
1	A	1697	G	O5'-P-OP2	7.41	119.59	110.70
1	A	729	G	N1-C6-O6	-7.41	115.45	119.90
1	A	2057	A	C8-N9-C1'	-7.41	114.37	127.70
1	A	828	A	C5-C6-N6	7.41	129.62	123.70
1	A	1357	G	C4-C5-N7	7.41	113.76	110.80
1	A	2309	G	O4'-C1'-N9	7.41	114.12	108.20
1	A	2514	G	N1-C2-N3	7.41	128.34	123.90
1	A	2869	G	N1-C2-N2	-7.41	109.53	116.20
1	A	2542	C	O5'-P-OP2	7.40	119.58	110.70
1	A	1056	U	C6-N1-C2	-7.40	116.56	121.00
1	A	1287	U	C5-C6-N1	7.40	126.40	122.70
1	A	1852	G	C5-C6-N1	7.40	115.20	111.50
1	A	2667	G	C4-C5-N7	-7.40	107.84	110.80
1	A	830	U	N3-C2-O2	-7.40	117.02	122.20
1	A	2762	G	N3-C4-N9	-7.40	121.56	126.00
1	A	954	A	N7-C8-N9	-7.40	110.10	113.80
1	A	868	A	N9-C4-C5	-7.40	102.84	105.80
1	A	381	G	C4-C5-N7	7.40	113.76	110.80
1	A	832	C	N3-C4-C5	7.40	124.86	121.90
1	A	987	U	C2'-C3'-O3'	7.39	125.77	109.50
1	A	1013	U	N3-C2-O2	-7.39	117.02	122.20
1	A	2474	G	OP2-P-O3'	-7.39	88.94	105.20
1	A	714	G	OP1-P-OP2	-7.39	108.52	119.60
1	A	2265	G	N3-C4-N9	7.39	130.43	126.00
1	A	2477	A	C4-N9-C1'	7.39	139.60	126.30
1	A	2497	G	C5-C6-N1	-7.39	107.81	111.50
1	A	226	A	C4-C5-C6	-7.39	113.31	117.00
1	A	535	G	C6-C5-N7	-7.39	125.97	130.40
1	A	547	A	OP1-P-O3'	7.39	121.45	105.20
1	A	994	A	C6-N1-C2	7.39	123.03	118.60
1	A	415	U	N1-C2-N3	7.38	119.33	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2845	G	N1-C6-O6	7.38	124.33	119.90
1	A	2863	G	C5-N7-C8	7.38	107.99	104.30
1	A	1252	A	O4'-C1'-N9	-7.38	102.29	108.20
1	A	470	G	N3-C4-N9	-7.38	121.57	126.00
1	A	2479	C	C6-N1-C2	-7.38	117.35	120.30
1	A	2044	C	P-O3'-C3'	7.38	128.56	119.70
1	A	962	A	O5'-P-OP1	-7.38	99.06	105.70
1	A	1029	C	N3-C2-O2	-7.38	116.73	121.90
1	A	2685	C	C6-N1-C2	-7.38	117.35	120.30
1	A	1207	G	N3-C4-N9	7.38	130.43	126.00
1	A	2445	A	N1-C2-N3	-7.38	125.61	129.30
1	A	2704	A	N9-C4-C5	-7.38	102.85	105.80
1	A	2570	G	N3-C4-N9	7.37	130.42	126.00
2	B	87	C	C6-N1-C1'	-7.37	111.95	120.80
1	A	1374	G	C4-C5-N7	7.37	113.75	110.80
1	A	2858	G	C6-N1-C2	-7.37	120.68	125.10
1	A	300	G	C4-C5-C6	-7.37	114.38	118.80
1	A	1286	G	C1'-O4'-C4'	-7.37	104.01	109.90
1	A	94	A	C5-C6-N6	-7.37	117.81	123.70
1	A	176	A	OP1-P-O3'	7.37	121.41	105.20
1	A	416	G	C2-N3-C4	-7.36	108.22	111.90
1	A	629	A	O5'-P-OP1	-7.36	99.07	105.70
1	A	174	U	C2-N1-C1'	7.36	126.53	117.70
1	A	960	C	C5-C6-N1	7.36	124.68	121.00
1	A	1063	U	N1-C2-N3	7.36	119.31	114.90
1	A	892	U	C5-C6-N1	-7.36	119.02	122.70
1	A	2283	G	C6-C5-N7	-7.36	125.99	130.40
1	A	607	C	C6-N1-C1'	-7.35	111.98	120.80
1	A	909	G	C5-C6-O6	7.35	133.01	128.60
1	A	988	C	C5-C4-N4	7.35	125.35	120.20
1	A	2223	C	C2-N1-C1'	7.35	126.89	118.80
1	A	2393	A	N1-C6-N6	-7.35	114.19	118.60
1	A	1473	G	C6-C5-N7	-7.35	125.99	130.40
1	A	2284	U	C6-N1-C1'	-7.35	110.91	121.20
1	A	2585	C	C5-C6-N1	7.35	124.67	121.00
1	A	2673	C	C2-N1-C1'	7.35	126.89	118.80
1	A	2804	G	C5-C6-N1	7.35	115.17	111.50
1	A	526	A	C8-N9-C4	-7.35	102.86	105.80
1	A	471	G	N3-C4-N9	-7.35	121.59	126.00
1	A	894	A	O5'-P-OP2	-7.35	99.09	105.70
1	A	1194	U	N1-C2-O2	7.35	127.94	122.80
31	a	620	C	N1-C2-O2	7.35	123.31	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	900	G	N3-C2-N2	7.35	125.04	119.90
1	A	1932	C	N3-C2-O2	-7.35	116.76	121.90
1	A	2393	A	C5-C6-N1	7.34	121.37	117.70
1	A	2523	C	C1'-O4'-C4'	-7.34	104.03	109.90
1	A	445	G	C2-N3-C4	7.34	115.57	111.90
1	A	2043	U	C5'-C4'-C3'	7.34	127.75	116.00
1	A	2643	C	C6-N1-C2	-7.34	117.36	120.30
1	A	639	U	O3'-P-O5'	7.34	117.95	104.00
1	A	968	A	C8-N9-C4	-7.34	102.86	105.80
1	A	2291	C	N3-C4-N4	-7.34	112.86	118.00
1	A	544	U	C2-N1-C1'	7.34	126.51	117.70
1	A	1262	U	N3-C2-O2	-7.34	117.06	122.20
1	A	2063	C	C6-N1-C1'	7.34	129.61	120.80
1	A	2411	A	N3-C4-C5	7.34	131.94	126.80
1	A	2446	U	N1-C2-O2	7.34	127.94	122.80
1	A	378	C	N3-C2-O2	-7.34	116.76	121.90
1	A	757	G	C4-N9-C1'	7.34	136.04	126.50
1	A	411	A	C2-N3-C4	7.34	114.27	110.60
1	A	703	A	C4-N9-C1'	7.34	139.50	126.30
1	A	1361	G	N1-C6-O6	-7.34	115.50	119.90
1	A	809	A	N1-C6-N6	-7.33	114.20	118.60
1	A	2048	G	C8-N9-C4	-7.33	103.47	106.40
1	A	2856	U	P-O3'-C3'	7.33	128.50	119.70
31	a	267	G	C8-N9-C1'	-7.33	117.47	127.00
1	A	457	G	C6-C5-N7	-7.33	126.00	130.40
1	A	733	U	C5-C6-N1	7.33	126.36	122.70
1	A	1321	A	N3-C4-C5	-7.33	121.67	126.80
1	A	2006	C	N3-C2-O2	-7.33	116.77	121.90
1	A	2433	C	C6-N1-C2	-7.33	117.37	120.30
1	A	709	U	O5'-P-OP2	-7.33	99.10	105.70
1	A	2310	C	C2-N3-C4	-7.33	116.23	119.90
1	A	354	A	C6-N1-C2	-7.33	114.20	118.60
1	A	1182	G	N9-C4-C5	-7.33	102.47	105.40
1	A	1290	G	C8-N9-C1'	-7.33	117.47	127.00
1	A	2584	G	N1-C6-O6	-7.33	115.50	119.90
1	A	2868	G	N3-C2-N2	7.33	125.03	119.90
1	A	1262	U	C6-N1-C2	-7.33	116.60	121.00
1	A	1255	A	N9-C4-C5	-7.33	102.87	105.80
1	A	2543	G	C5'-C4'-O4'	7.33	117.89	109.10
1	A	2597	G	O4'-C1'-N9	-7.33	102.34	108.20
1	A	1286	G	N3-C4-C5	7.32	132.26	128.60
1	A	2860	U	N1-C2-O2	7.32	127.93	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	59	U	N1-C2-N3	7.32	119.29	114.90
1	A	707	G	C4'-C3'-O3'	7.32	127.64	113.00
1	A	2539	C	N3-C4-C5	7.32	124.83	121.90
1	A	644	C	C4-C5-C6	7.32	121.06	117.40
1	A	1303	A	C8-N9-C4	-7.32	102.87	105.80
1	A	1711	G	C8-N9-C4	-7.32	103.47	106.40
1	A	2273	G	N3-C4-N9	7.32	130.39	126.00
1	A	302	A	N3-C4-N9	7.32	133.25	127.40
1	A	1189	C	N3-C2-O2	-7.32	116.78	121.90
1	A	669	C	OP1-P-OP2	-7.31	108.63	119.60
1	A	2027	G	C5-C6-O6	7.31	132.99	128.60
1	A	1688	U	N3-C2-O2	-7.31	117.08	122.20
1	A	2440	G	N9-C4-C5	-7.31	102.47	105.40
1	A	1591	G	N3-C4-N9	7.31	130.38	126.00
1	A	861	C	C2-N3-C4	7.31	123.55	119.90
1	A	1035	C	C4-C5-C6	-7.31	113.75	117.40
1	A	1078	G	C6-C5-N7	7.31	134.78	130.40
1	A	2084	G	N1-C2-N3	7.31	128.28	123.90
1	A	2370	U	N1-C2-O2	7.31	127.92	122.80
31	a	988	C	N1-C2-O2	7.31	123.28	118.90
1	A	515	G	C8-N9-C4	-7.31	103.48	106.40
1	A	865	A	N1-C6-N6	7.30	122.98	118.60
1	A	995	U	N1-C2-N3	-7.30	110.52	114.90
1	A	519	G	N1-C6-O6	-7.30	115.52	119.90
1	A	355	G	C4-C5-C6	7.30	123.18	118.80
1	A	426	G	N3-C4-N9	-7.30	121.62	126.00
1	A	2486	A	C4-C5-N7	7.30	114.35	110.70
31	a	1449	G	N3-C4-C5	7.30	132.25	128.60
1	A	1001	A	C4-C5-N7	7.30	114.35	110.70
1	A	1018	A	C5-C6-N1	-7.30	114.05	117.70
1	A	221	G	C8-N9-C4	-7.30	103.48	106.40
1	A	241	C	C6-N1-C1'	-7.30	112.05	120.80
1	A	303	G	N1-C2-N3	7.30	128.28	123.90
1	A	366	G	C8-N9-C1'	-7.30	117.51	127.00
1	A	550	A	OP1-P-O3'	7.30	121.25	105.20
1	A	1082	C	C5-C6-N1	7.30	124.65	121.00
1	A	1200	A	C4-N9-C1'	-7.30	113.17	126.30
1	A	659	A	C5-N7-C8	-7.29	100.25	103.90
1	A	2856	U	N3-C4-C5	-7.29	110.22	114.60
1	A	411	A	N1-C6-N6	-7.29	114.22	118.60
1	A	2344	C	C5-C6-N1	7.29	124.65	121.00
1	A	2906	G	C6-C5-N7	-7.29	126.02	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	666	A	C5-N7-C8	-7.29	100.25	103.90
1	A	414	C	C2-N3-C4	-7.29	116.25	119.90
1	A	2585	C	N1-C1'-C2'	7.29	123.48	114.00
1	A	210	A	N1-C2-N3	-7.29	125.66	129.30
1	A	367	A	N1-C6-N6	-7.29	114.23	118.60
1	A	1228	A	N7-C8-N9	7.29	117.44	113.80
1	A	1304	G	C8-N9-C4	7.29	109.32	106.40
1	A	1074	G	C5-C6-N1	7.29	115.14	111.50
1	A	1003	A	N1-C6-N6	-7.29	114.23	118.60
1	A	1162	C	N1-C2-O2	7.29	123.27	118.90
1	A	2476	U	C2-N3-C4	-7.29	122.63	127.00
1	A	256	C	N3-C2-O2	-7.28	116.80	121.90
1	A	1029	C	N1-C2-N3	-7.28	114.10	119.20
1	A	1044	A	N1-C6-N6	-7.28	114.23	118.60
1	A	1432	A	N1-C6-N6	-7.28	114.23	118.60
1	A	2757	U	C4-C5-C6	-7.28	115.33	119.70
31	a	227	C	O4'-C1'-N1	7.28	114.03	108.20
1	A	221	G	C6-C5-N7	-7.28	126.03	130.40
1	A	963	A	C4-C5-N7	7.28	114.34	110.70
1	A	990	G	P-O5'-C5'	7.28	132.55	120.90
1	A	2516	G	N3-C2-N2	7.28	125.00	119.90
1	A	2632	U	N3-C2-O2	-7.28	117.10	122.20
1	A	2860	U	C6-N1-C2	-7.28	116.63	121.00
1	A	458	A	N7-C8-N9	7.28	117.44	113.80
1	A	19	G	C5-N7-C8	-7.28	100.66	104.30
1	A	199	A	C2-N3-C4	7.28	114.24	110.60
1	A	850	G	C6-N1-C2	-7.28	120.73	125.10
1	A	416	G	N1-C2-N3	7.28	128.26	123.90
1	A	1033	G	O4'-C1'-N9	7.28	114.02	108.20
1	A	2516	G	C6-C5-N7	-7.28	126.03	130.40
1	A	2892	G	N1-C6-O6	-7.28	115.53	119.90
1	A	1945	A	C2-N3-C4	7.27	114.24	110.60
1	A	1174	U	C5-C6-N1	-7.27	119.06	122.70
1	A	2064	A	OP1-P-O3'	7.27	121.20	105.20
1	A	2514	G	N1-C6-O6	-7.27	115.54	119.90
1	A	987	U	C4-C5-C6	-7.27	115.34	119.70
1	A	541	G	C6-C5-N7	7.27	134.76	130.40
1	A	2043	U	C4'-C3'-O3'	7.27	127.54	113.00
1	A	2433	C	C6-N1-C1'	7.27	129.52	120.80
1	A	2442	G	C5'-C4'-O4'	7.26	117.82	109.10
1	A	2516	G	C1'-O4'-C4'	-7.26	104.09	109.90
1	A	1277	C	C5-C6-N1	7.26	124.63	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2544	C	C3'-C2'-C1'	7.26	107.31	101.50
1	A	947	U	C5-C6-N1	7.26	126.33	122.70
1	A	2902	A	C5-C6-N1	7.26	121.33	117.70
31	a	1212	U	N3-C2-O2	-7.26	117.12	122.20
1	A	994	A	C5-C6-N6	-7.26	117.89	123.70
1	A	2419	A	O5'-P-OP2	7.26	119.41	110.70
1	A	2914	A	C4-C5-N7	7.26	114.33	110.70
1	A	1373	U	O4'-C1'-N1	7.25	114.00	108.20
1	A	2567	C	N1-C2-N3	7.25	124.28	119.20
1	A	58	G	C5-C6-O6	7.25	132.95	128.60
1	A	543	G	O5'-P-OP1	-7.25	99.17	105.70
1	A	645	A	N7-C8-N9	7.25	117.43	113.80
1	A	150	A	N3-C4-C5	-7.25	121.72	126.80
1	A	896	U	O3'-P-O5'	7.25	117.77	104.00
1	A	90	A	N7-C8-N9	7.25	117.42	113.80
1	A	586	C	N3-C4-N4	-7.25	112.93	118.00
1	A	607	C	C2-N1-C1'	7.25	126.77	118.80
1	A	1913	U	N1-C2-O2	7.25	127.87	122.80
1	A	355	G	N1-C6-O6	7.25	124.25	119.90
1	A	1181	G	N3-C2-N2	7.25	124.97	119.90
1	A	2360	A	C8-N9-C4	-7.25	102.90	105.80
1	A	446	G	C5-C6-O6	-7.25	124.25	128.60
1	A	2523	C	N1-C1'-C2'	7.24	123.42	114.00
1	A	1019	A	C5-C6-N1	-7.24	114.08	117.70
2	B	76	A	C4-N9-C1'	7.24	139.34	126.30
31	a	502	C	C2-N1-C1'	7.24	126.77	118.80
1	A	707	G	O3'-P-O5'	7.24	117.75	104.00
1	A	2442	G	OP2-P-O3'	7.24	121.13	105.20
1	A	519	G	N1-C2-N3	7.24	128.24	123.90
1	A	856	U	O4'-C1'-N1	7.24	113.99	108.20
1	A	669	C	C5-C6-N1	7.24	124.62	121.00
1	A	2362	A	C6-N1-C2	7.24	122.94	118.60
1	A	1257	G	C6-C5-N7	-7.23	126.06	130.40
1	A	1055	A	OP2-P-O3'	7.23	121.11	105.20
1	A	1065	A	C2-N3-C4	-7.23	106.98	110.60
1	A	2071	C	N3-C4-C5	7.23	124.79	121.90
1	A	2527	U	C6-N1-C1'	7.23	131.33	121.20
1	A	2751	U	C5-C4-O4	7.23	130.24	125.90
1	A	858	U	C1'-O4'-C4'	-7.23	104.11	109.90
1	A	2547	C	N3-C2-O2	-7.23	116.84	121.90
1	A	2551	G	O5'-P-OP2	7.23	119.38	110.70
1	A	2573	U	N3-C2-O2	-7.23	117.14	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	85	G	N3-C4-C5	7.23	132.22	128.60
1	A	627	C	P-O3'-C3'	7.23	128.38	119.70
1	A	2442	G	C4-N9-C1'	7.23	135.90	126.50
1	A	45	G	O4'-C1'-N9	-7.23	102.42	108.20
1	A	246	U	C5-C6-N1	7.23	126.31	122.70
1	A	571	A	N1-C2-N3	-7.23	125.69	129.30
1	A	2420	U	O5'-P-OP1	-7.23	99.20	105.70
1	A	2655	U	C2-N3-C4	7.23	131.34	127.00
1	A	2736	G	C5-C6-N1	7.23	115.11	111.50
1	A	1852	G	O5'-P-OP1	-7.22	99.20	105.70
1	A	2027	G	N1-C2-N3	7.22	128.24	123.90
1	A	2034	U	N3-C2-O2	-7.22	117.14	122.20
1	A	2481	G	C6-N1-C2	-7.22	120.77	125.10
1	A	497	U	C1'-O4'-C4'	-7.22	104.12	109.90
1	A	1039	C	C2-N3-C4	7.22	123.51	119.90
1	A	1179	C	N1-C2-N3	7.22	124.25	119.20
1	A	344	U	N1-C1'-C2'	7.22	123.39	114.00
1	A	537	A	C2-N3-C4	7.22	114.21	110.60
1	A	584	G	C2-N3-C4	7.22	115.51	111.90
31	a	1163	G	C4-N9-C1'	7.22	135.88	126.50
1	A	966	C	N3-C4-N4	-7.22	112.95	118.00
1	A	880	A	C5-C6-N6	7.22	129.47	123.70
1	A	1595	C	N1-C2-O2	7.22	123.23	118.90
1	A	2457	A	N1-C6-N6	7.21	122.93	118.60
1	A	2903	A	N1-C2-N3	-7.21	125.69	129.30
1	A	893	G	N9-C1'-C2'	7.21	123.38	114.00
1	A	1028	G	C5-C6-N1	7.21	115.11	111.50
1	A	493	A	C5-N7-C8	-7.21	100.29	103.90
1	A	641	A	C5-N7-C8	-7.21	100.30	103.90
1	A	905	U	N1-C2-N3	7.21	119.23	114.90
1	A	894	A	C4-C5-N7	7.21	114.31	110.70
1	A	919	G	N3-C4-C5	-7.21	125.00	128.60
1	A	2704	A	OP2-P-O3'	7.21	121.06	105.20
1	A	2077	C	C2-N1-C1'	7.21	126.73	118.80
1	A	2081	A	C4-N9-C1'	-7.21	113.33	126.30
1	A	2910	G	C6-C5-N7	-7.21	126.08	130.40
1	A	977	A	C4-C5-N7	7.21	114.30	110.70
1	A	1068	G	O4'-C1'-N9	7.21	113.97	108.20
1	A	489	A	C8-N9-C1'	-7.21	114.73	127.70
1	A	2643	C	C5-C6-N1	7.21	124.60	121.00
1	A	634	C	N3-C2-O2	-7.20	116.86	121.90
1	A	997	G	C2-N3-C4	7.20	115.50	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1063	U	C6-N1-C2	-7.20	116.68	121.00
1	A	487	U	C2-N1-C1'	7.20	126.34	117.70
1	A	2585	C	C5-C4-N4	7.20	125.24	120.20
1	A	332	A	N9-C4-C5	7.20	108.68	105.80
1	A	474	A	C5'-C4'-O4'	7.20	117.74	109.10
1	A	1325	U	C6-N1-C2	-7.20	116.68	121.00
1	A	2009	U	N3-C2-O2	-7.20	117.16	122.20
1	A	205	U	N1-C2-O2	7.20	127.84	122.80
1	A	919	G	O4'-C1'-N9	7.20	113.96	108.20
1	A	1063	U	C2-N3-C4	-7.20	122.68	127.00
1	A	1274	G	N1-C6-O6	-7.20	115.58	119.90
1	A	2382	C	N3-C4-C5	7.20	124.78	121.90
1	A	45	G	N9-C1'-C2'	7.20	123.36	114.00
1	A	2037	G	C8-N9-C4	-7.20	103.52	106.40
1	A	1510	U	N1-C2-O2	7.20	127.84	122.80
1	A	2391	C	N3-C4-C5	-7.20	119.02	121.90
1	A	2740	A	N7-C8-N9	7.20	117.40	113.80
1	A	2810	A	C5-C6-N1	7.19	121.30	117.70
1	A	239	C	O5'-P-OP1	-7.19	99.23	105.70
1	A	598	G	C2-N3-C4	-7.19	108.31	111.90
1	A	2479	C	C5-C4-N4	-7.19	115.17	120.20
1	A	346	A	C2-N3-C4	7.19	114.19	110.60
1	A	2761	C	C2-N3-C4	7.19	123.49	119.90
1	A	116	G	N7-C8-N9	7.19	116.69	113.10
1	A	299	U	OP1-P-O3'	7.19	121.01	105.20
1	A	1366	U	N1-C2-N3	7.19	119.21	114.90
1	A	2369	C	N1-C1'-C2'	7.19	123.34	114.00
1	A	2704	A	N1-C6-N6	7.19	122.91	118.60
31	a	522	C	C5-C6-N1	7.19	124.59	121.00
1	A	2032	A	N7-C8-N9	7.18	117.39	113.80
1	A	175	C	C2-N1-C1'	7.18	126.70	118.80
1	A	1173	A	N1-C6-N6	7.18	122.91	118.60
31	a	1452	G	N3-C4-C5	-7.18	125.01	128.60
1	A	346	A	C5-C6-N1	7.18	121.29	117.70
1	A	366	G	N1-C2-N3	7.18	128.21	123.90
1	A	1177	A	C5-C6-N1	-7.18	114.11	117.70
1	A	2644	C	N1-C2-N3	7.18	124.22	119.20
1	A	2672	G	C5-C6-N1	7.18	115.09	111.50
1	A	2845	G	C8-N9-C1'	7.18	136.33	127.00
1	A	606	G	O5'-P-OP1	-7.17	99.24	105.70
1	A	909	G	C6-N1-C2	-7.17	120.80	125.10
1	A	1273	G	O5'-P-OP2	-7.17	99.25	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	a	424	G	N3-C4-N9	7.17	130.30	126.00
1	A	1302	G	OP2-P-O3'	-7.17	89.43	105.20
1	A	2395	C	C5-C6-N1	7.17	124.58	121.00
1	A	2761	C	C5-C4-N4	7.17	125.22	120.20
1	A	175	C	N1-C2-O2	7.17	123.20	118.90
1	A	495	A	C5-C6-N6	-7.17	117.97	123.70
1	A	1022	G	N1-C2-N3	-7.17	119.60	123.90
1	A	1183	G	C4-C5-C6	7.17	123.10	118.80
1	A	2042	A	OP1-P-O3'	-7.17	89.43	105.20
1	A	2643	C	C2-N3-C4	7.17	123.48	119.90
1	A	2078	A	C2-N3-C4	7.17	114.18	110.60
1	A	2439	A	C6-C5-N7	-7.17	127.28	132.30
1	A	665	G	C4-C5-N7	-7.16	107.94	110.80
1	A	1001	A	N1-C2-N3	-7.16	125.72	129.30
1	A	1251	A	C4'-C3'-C2'	-7.16	95.44	102.60
1	A	1264	A	N1-C2-N3	7.16	132.88	129.30
1	A	977	A	C6-N1-C2	7.16	122.90	118.60
1	A	471	G	C8-N9-C4	-7.16	103.53	106.40
1	A	1022	G	C5-C6-O6	-7.16	124.30	128.60
1	A	1329	G	C5-C6-N1	7.16	115.08	111.50
31	a	902	C	N3-C2-O2	-7.16	116.89	121.90
1	A	667	G	N3-C4-N9	7.16	130.29	126.00
1	A	55	G	O5'-P-OP1	-7.16	99.26	105.70
1	A	255	G	C4-C5-N7	7.16	113.66	110.80
1	A	2419	A	C5'-C4'-C3'	7.16	127.45	116.00
1	A	2833	U	C5-C4-O4	-7.16	121.61	125.90
1	A	616	G	N3-C4-N9	-7.15	121.71	126.00
1	A	2690	G	N7-C8-N9	7.15	116.68	113.10
1	A	866	A	OP1-P-O3'	-7.15	89.47	105.20
1	A	2477	A	N9-C4-C5	-7.15	102.94	105.80
1	A	14	A	C8-N9-C4	-7.15	102.94	105.80
1	A	1165	C	C5-C6-N1	7.15	124.57	121.00
1	A	903	G	C6-N1-C2	-7.15	120.81	125.10
1	A	262	G	C6-N1-C2	7.14	129.39	125.10
1	A	707	G	C4-C5-C6	-7.14	114.51	118.80
1	A	2662	U	C4'-C3'-O3'	7.14	127.29	113.00
1	A	857	C	C5'-C4'-O4'	7.14	117.67	109.10
2	B	85	U	N3-C4-O4	7.14	124.40	119.40
1	A	1174	U	C1'-O4'-C4'	-7.14	104.19	109.90
1	A	2516	G	C5'-C4'-O4'	7.14	117.67	109.10
1	A	361	U	OP2-P-O3'	7.14	120.91	105.20
1	A	884	U	C6-N1-C2	-7.14	116.72	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	996	G	OP2-P-O3'	7.14	120.91	105.20
1	A	1602	U	C5-C6-N1	7.14	126.27	122.70
1	A	302	A	C6-N1-C2	-7.14	114.32	118.60
31	a	1219	C	C2-N1-C1'	7.14	126.65	118.80
1	A	2088	G	N3-C4-C5	-7.14	125.03	128.60
1	A	2310	C	N1-C2-N3	7.14	124.19	119.20
1	A	647	G	N3-C4-C5	-7.13	125.03	128.60
1	A	850	G	N1-C6-O6	-7.13	115.62	119.90
1	A	966	C	C5-C4-N4	7.13	125.19	120.20
1	A	2543	G	N9-C4-C5	7.13	108.25	105.40
1	A	174	U	N3-C2-O2	-7.13	117.21	122.20
1	A	2077	C	OP1-P-O3'	7.13	120.89	105.20
1	A	416	G	N7-C8-N9	7.13	116.67	113.10
1	A	1928	A	C8-N9-C4	-7.13	102.95	105.80
1	A	2045	A	O5'-P-OP2	-7.13	99.28	105.70
1	A	2489	U	N1-C2-O2	7.13	127.79	122.80
1	A	184	C	C6-N1-C1'	7.13	129.35	120.80
1	A	381	G	N1-C2-N3	7.12	128.17	123.90
1	A	1013	U	C5-C4-O4	-7.12	121.63	125.90
1	A	2092	C	C5-C4-N4	7.12	125.19	120.20
1	A	2914	A	C5-N7-C8	-7.12	100.34	103.90
1	A	537	A	N1-C2-N3	-7.12	125.74	129.30
1	A	894	A	C2-N3-C4	-7.12	107.04	110.60
1	A	2478	A	P-O3'-C3'	7.12	128.25	119.70
1	A	493	A	C5-C6-N1	7.12	121.26	117.70
1	A	1366	U	C2-N3-C4	-7.12	122.73	127.00
1	A	2309	G	C5-C6-N1	7.12	115.06	111.50
1	A	203	U	N3-C4-O4	-7.12	114.42	119.40
1	A	382	U	C5-C4-O4	7.12	130.17	125.90
1	A	500	A	P-O3'-C3'	7.12	128.24	119.70
1	A	2080	G	C4-N9-C1'	-7.12	117.25	126.50
1	A	2353	U	C5-C6-N1	-7.12	119.14	122.70
1	A	1704	C	C2-N3-C4	-7.11	116.34	119.90
1	A	2892	G	C5-C6-N1	7.11	115.06	111.50
1	A	1190	A	N1-C6-N6	-7.11	114.33	118.60
1	A	32	C	N3-C4-N4	-7.11	113.02	118.00
1	A	1044	A	O4'-C1'-N9	7.11	113.89	108.20
1	A	820	G	N1-C6-O6	-7.11	115.64	119.90
1	A	2049	U	OP1-P-O3'	7.11	120.83	105.20
1	A	2528	C	C4-C5-C6	7.11	120.95	117.40
1	A	1277	C	C2-N1-C1'	7.10	126.61	118.80
1	A	1369	G	N3-C2-N2	7.10	124.87	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1383	G	N1-C6-O6	-7.10	115.64	119.90
1	A	1806	U	C4-C5-C6	7.10	123.96	119.70
1	A	2808	A	C4-C5-N7	7.10	114.25	110.70
1	A	200	A	N7-C8-N9	7.10	117.35	113.80
1	A	556	U	N3-C2-O2	-7.10	117.23	122.20
1	A	1395	G	N1-C6-O6	7.10	124.16	119.90
1	A	89	U	N1-C2-N3	7.10	119.16	114.90
1	A	2803	A	C4-C5-C6	7.10	120.55	117.00
1	A	186	C	C2-N1-C1'	7.10	126.61	118.80
1	A	1074	G	N1-C6-O6	-7.10	115.64	119.90
1	A	2461	A	N1-C2-N3	-7.10	125.75	129.30
1	A	2608	G	C4-N9-C1'	7.10	135.73	126.50
1	A	2806	U	C2-N3-C4	-7.10	122.74	127.00
1	A	250	G	O5'-P-OP2	-7.10	99.31	105.70
1	A	457	G	C4-C5-N7	7.10	113.64	110.80
1	A	991	A	O5'-P-OP2	7.09	119.21	110.70
1	A	2515	A	C2-N3-C4	7.09	114.15	110.60
1	A	2751	U	N3-C4-O4	-7.09	114.43	119.40
1	A	896	U	C2-N3-C4	-7.09	122.75	127.00
1	A	2597	G	C5-C6-O6	-7.09	124.34	128.60
1	A	998	G	C5-C6-O6	7.09	132.85	128.60
31	a	1325	U	N3-C2-O2	-7.09	117.24	122.20
1	A	1179	C	N3-C4-N4	-7.09	113.04	118.00
1	A	2007	G	N3-C4-C5	-7.09	125.06	128.60
1	A	376	A	O5'-P-OP1	-7.09	99.32	105.70
1	A	445	G	N7-C8-N9	7.09	116.64	113.10
1	A	2381	A	C5-C6-N6	-7.09	118.03	123.70
1	A	482	U	N1-C2-N3	7.08	119.15	114.90
1	A	2049	U	C2-N1-C1'	7.08	126.20	117.70
1	A	22	C	N1-C2-N3	-7.08	114.24	119.20
1	A	193	A	C4-C5-N7	7.08	114.24	110.70
1	A	872	U	C6-N1-C2	-7.08	116.75	121.00
1	A	1187	A	C4-N9-C1'	7.08	139.04	126.30
1	A	1860	C	C6-N1-C2	-7.08	117.47	120.30
1	A	2855	A	C8-N9-C4	7.08	108.63	105.80
1	A	1237	U	N1-C2-N3	7.08	119.15	114.90
1	A	90	A	N3-C4-N9	7.08	133.06	127.40
1	A	667	G	C4'-C3'-C2'	-7.08	95.52	102.60
1	A	1297	G	O5'-P-OP2	7.08	119.19	110.70
1	A	1430	A	N9-C4-C5	7.08	108.63	105.80
1	A	853	G	C2-N3-C4	7.08	115.44	111.90
1	A	875	G	N1-C6-O6	-7.08	115.65	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	908	A	N9-C4-C5	-7.08	102.97	105.80
1	A	1715	U	N3-C4-O4	7.08	124.35	119.40
1	A	2515	A	C5-C6-N1	7.08	121.24	117.70
1	A	2678	C	N1-C2-O2	7.08	123.15	118.90
1	A	546	A	C4-C5-N7	7.08	114.24	110.70
1	A	1364	C	N1-C2-O2	-7.08	114.66	118.90
1	A	1602	U	N3-C4-O4	7.08	124.35	119.40
1	A	993	C	C6-N1-C1'	-7.07	112.31	120.80
1	A	1299	U	C5-C6-N1	-7.07	119.16	122.70
31	a	1318	U	N1-C2-O2	7.07	127.75	122.80
1	A	872	U	C6-N1-C1'	-7.07	111.30	121.20
1	A	1003	A	OP1-P-O3'	7.07	120.75	105.20
1	A	1015	C	N3-C4-N4	-7.07	113.05	118.00
1	A	1183	G	N7-C8-N9	7.07	116.64	113.10
1	A	1295	C	C6-N1-C1'	7.07	129.28	120.80
1	A	635	G	N9-C4-C5	7.07	108.23	105.40
1	A	2360	A	O5'-P-OP1	-7.07	99.34	105.70
1	A	1022	G	OP1-P-O3'	7.07	120.75	105.20
1	A	2867	U	C2-N1-C1'	7.07	126.18	117.70
31	a	65	G	P-O3'-C3'	7.07	128.18	119.70
1	A	27	G	C5-C6-N1	7.07	115.03	111.50
1	A	1260	C	OP1-P-OP2	7.07	130.20	119.60
1	A	1269	A	N1-C2-N3	-7.07	125.77	129.30
1	A	1314	A	C4-C5-C6	-7.07	113.47	117.00
1	A	2472	G	OP1-P-OP2	7.07	130.20	119.60
1	A	272	C	N1-C2-N3	7.06	124.14	119.20
1	A	1607	A	C5-C6-N1	7.06	121.23	117.70
1	A	303	G	C5-C6-O6	7.06	132.84	128.60
1	A	398	C	N1-C2-O2	7.06	123.14	118.90
1	A	1063	U	N3-C4-C5	7.06	118.84	114.60
1	A	2295	A	C5'-C4'-O4'	7.06	117.58	109.10
1	A	2868	G	C5'-C4'-O4'	-7.06	100.62	109.10
1	A	2285	C	N3-C4-C5	7.06	124.72	121.90
1	A	2578	C	N3-C2-O2	-7.06	116.96	121.90
1	A	2906	G	C4-N9-C1'	7.06	135.68	126.50
31	a	424	G	C4-N9-C1'	7.06	135.68	126.50
1	A	200	A	C5'-C4'-O4'	7.06	117.57	109.10
1	A	327	G	C4-N9-C1'	7.06	135.68	126.50
1	A	1256	U	C2-N3-C4	-7.06	122.77	127.00
1	A	33	U	C6-N1-C2	-7.06	116.77	121.00
1	A	2745	G	C8-N9-C4	-7.06	103.58	106.40
1	A	2801	C	C6-N1-C2	-7.06	117.48	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2812	U	P-O5'-C5'	7.06	132.19	120.90
1	A	13	A	C6-N1-C2	-7.06	114.37	118.60
1	A	120	G	N9-C4-C5	-7.06	102.58	105.40
1	A	1058	U	N1-C2-O2	7.06	127.74	122.80
1	A	860	U	O5'-C5'-C4'	-7.05	98.30	111.70
1	A	1642	C	N1-C2-O2	7.05	123.13	118.90
31	a	688	C	C5-C6-N1	7.05	124.53	121.00
1	A	1719	C	C6-N1-C2	-7.05	117.48	120.30
1	A	2886	G	C5-N7-C8	7.05	107.83	104.30
1	A	543	G	O5'-P-OP2	-7.05	99.35	105.70
1	A	558	A	N9-C4-C5	7.05	108.62	105.80
1	A	1083	G	C5-C6-N1	-7.05	107.97	111.50
1	A	2798	C	C6-N1-C2	-7.05	117.48	120.30
31	a	778	C	C5-C6-N1	7.05	124.53	121.00
1	A	71	A	C2-N3-C4	-7.05	107.08	110.60
1	A	1020	G	OP1-P-OP2	-7.05	109.03	119.60
1	A	1813	A	C8-N9-C4	-7.05	102.98	105.80
1	A	2645	G	C6-C5-N7	-7.05	126.17	130.40
1	A	2116	U	N1-C2-O2	7.05	127.73	122.80
1	A	297	G	C2-N3-C4	7.05	115.42	111.90
1	A	898	U	N1-C2-N3	7.05	119.13	114.90
1	A	1011	U	C6-N1-C2	-7.05	116.77	121.00
1	A	2473	G	N1-C2-N2	7.05	122.54	116.20
1	A	2508	G	C8-N9-C4	-7.05	103.58	106.40
1	A	2078	A	C4-N9-C1'	7.04	138.98	126.30
1	A	2519	U	OP1-P-O3'	7.04	120.70	105.20
1	A	297	G	C5-C6-N1	7.04	115.02	111.50
1	A	1016	G	P-O3'-C3'	7.04	128.15	119.70
1	A	1174	U	N1-C2-O2	7.04	127.73	122.80
1	A	85	G	C5-N7-C8	-7.04	100.78	104.30
1	A	202	A	N1-C2-N3	-7.04	125.78	129.30
1	A	593	U	C5'-C4'-O4'	7.04	117.55	109.10
1	A	630	G	OP2-P-O3'	7.04	120.69	105.20
1	A	1694	A	C5-C6-N6	-7.04	118.07	123.70
1	A	2080	G	N1-C2-N3	-7.04	119.67	123.90
1	A	71	A	N7-C8-N9	7.04	117.32	113.80
1	A	960	C	C6-N1-C2	-7.04	117.48	120.30
1	A	1035	C	N1-C2-O2	7.04	123.12	118.90
1	A	1263	A	OP1-P-O3'	-7.04	89.72	105.20
1	A	712	U	N1-C2-O2	7.04	127.72	122.80
1	A	2277	G	C5-C6-O6	-7.04	124.38	128.60
31	a	1451	G	N3-C4-C5	-7.04	125.08	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	491	C	OP2-P-O3'	7.03	120.67	105.20
1	A	2061	U	N1-C2-N3	-7.03	110.68	114.90
2	B	24	C	N3-C2-O2	-7.03	116.98	121.90
31	a	217	G	N3-C4-N9	-7.03	121.78	126.00
1	A	2380	G	C2-N3-C4	-7.03	108.38	111.90
1	A	239	C	C6-N1-C2	-7.03	117.49	120.30
1	A	496	G	O4'-C1'-N9	7.03	113.82	108.20
1	A	515	G	N1-C6-O6	-7.03	115.68	119.90
1	A	558	A	N3-C4-C5	-7.03	121.88	126.80
1	A	2047	A	C4-C5-C6	7.03	120.51	117.00
1	A	895	U	O4'-C1'-N1	7.03	113.82	108.20
1	A	1006	G	OP1-P-OP2	-7.03	109.06	119.60
1	A	1234	G	C4-C5-N7	-7.03	107.99	110.80
1	A	1715	U	N1-C2-N3	7.03	119.12	114.90
1	A	2065	G	C6-N1-C2	7.03	129.32	125.10
1	A	177	G	C4-C5-C6	7.03	123.02	118.80
1	A	749	G	O4'-C1'-N9	7.03	113.82	108.20
31	a	1449	G	C8-N9-C1'	7.03	136.13	127.00
1	A	358	G	N9-C4-C5	7.02	108.21	105.40
1	A	13	A	N1-C6-N6	-7.02	114.39	118.60
1	A	303	G	N1-C6-O6	-7.02	115.69	119.90
1	A	412	U	C2-N3-C4	-7.02	122.79	127.00
1	A	496	G	C5-C6-N1	-7.02	107.99	111.50
1	A	555	C	O5'-P-OP2	7.02	119.12	110.70
1	A	2237	U	N3-C2-O2	-7.02	117.29	122.20
1	A	2528	C	C5-C4-N4	7.02	125.11	120.20
1	A	2747	U	C5-C6-N1	-7.02	119.19	122.70
31	a	387	C	N1-C2-O2	7.02	123.11	118.90
1	A	422	G	N7-C8-N9	7.02	116.61	113.10
1	A	426	G	C5-C6-N1	7.02	115.01	111.50
1	A	1017	A	C6-N1-C2	7.02	122.81	118.60
1	A	1040	A	OP1-P-O3'	7.02	120.64	105.20
1	A	2759	G	N1-C6-O6	-7.02	115.69	119.90
31	a	437	U	OP2-P-O3'	7.02	120.64	105.20
1	A	490	C	N1-C2-O2	7.01	123.11	118.90
1	A	496	G	C3'-C2'-C1'	-7.01	95.89	101.50
1	A	1261	G	C4-C5-N7	7.01	113.61	110.80
1	A	348	C	C4-C5-C6	-7.01	113.89	117.40
1	A	1206	G	N1-C6-O6	-7.01	115.69	119.90
1	A	236	A	N1-C2-N3	7.01	132.80	129.30
1	A	265	A	N1-C6-N6	-7.01	114.39	118.60
1	A	2487	U	C2-N1-C1'	7.01	126.11	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2890	C	C2-N3-C4	-7.01	116.39	119.90
31	a	606	U	N3-C2-O2	-7.01	117.29	122.20
1	A	704	U	C6-N1-C2	-7.01	116.80	121.00
1	A	1844	G	C5-C6-O6	-7.01	124.40	128.60
1	A	2703	C	C5'-C4'-O4'	7.01	117.51	109.10
1	A	2899	A	N9-C1'-C2'	7.01	123.11	114.00
1	A	117	A	N1-C6-N6	7.00	122.80	118.60
1	A	633	A	N1-C2-N3	-7.00	125.80	129.30
1	A	371	U	N3-C4-O4	-7.00	114.50	119.40
1	A	599	A	OP2-P-O3'	-7.00	89.79	105.20
1	A	1022	G	C4'-C3'-O3'	7.00	127.00	113.00
1	A	1289	A	OP1-P-O3'	7.00	120.60	105.20
1	A	863	G	O5'-P-OP2	-7.00	99.40	105.70
1	A	640	G	P-O5'-C5'	7.00	132.10	120.90
1	A	2608	G	N9-C4-C5	-7.00	102.60	105.40
1	A	668	C	C2-N3-C4	-7.00	116.40	119.90
1	A	700	A	C4-N9-C1'	-7.00	113.71	126.30
1	A	1537	A	C5-C6-N6	-7.00	118.10	123.70
1	A	2064	A	O3'-P-O5'	7.00	117.29	104.00
1	A	2537	C	C6-N1-C2	-7.00	117.50	120.30
1	A	2551	G	N3-C4-C5	-7.00	125.10	128.60
1	A	2593	A	OP1-P-OP2	-7.00	109.10	119.60
1	A	2747	U	C2-N1-C1'	7.00	126.10	117.70
1	A	1651	C	N3-C2-O2	-7.00	117.00	121.90
1	A	1683	U	N3-C4-O4	-6.99	114.50	119.40
1	A	2470	C	OP2-P-O3'	6.99	120.59	105.20
1	A	2528	C	N1-C2-O2	6.99	123.10	118.90
1	A	2584	G	N7-C8-N9	6.99	116.60	113.10
1	A	2703	C	N3-C4-N4	-6.99	113.11	118.00
31	a	1439	C	C6-N1-C2	-6.99	117.50	120.30
1	A	1256	U	N1-C2-N3	6.99	119.09	114.90
1	A	2699	U	C5-C6-N1	6.99	126.19	122.70
1	A	556	U	C5-C6-N1	6.99	126.19	122.70
1	A	702	U	C2-N3-C4	-6.99	122.81	127.00
1	A	201	C	C6-N1-C1'	-6.99	112.42	120.80
1	A	2452	A	C4-C5-N7	6.99	114.19	110.70
1	A	2733	A	C4-C5-N7	6.99	114.19	110.70
1	A	868	A	C4-N9-C1'	6.99	138.88	126.30
1	A	557	G	N3-C2-N2	6.98	124.79	119.90
1	A	1214	C	C6-N1-C2	-6.98	117.51	120.30
1	A	1283	G	N1-C2-N2	6.98	122.48	116.20
1	A	2830	A	C6-N1-C2	6.98	122.79	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1299	U	C4-C5-C6	6.98	123.89	119.70
1	A	2443	C	O5'-P-OP1	6.98	119.08	110.70
1	A	2848	G	N1-C6-O6	-6.98	115.71	119.90
1	A	1027	A	C5-N7-C8	6.98	107.39	103.90
1	A	1361	G	C6-N1-C2	-6.98	120.91	125.10
1	A	2657	G	N7-C8-N9	6.98	116.59	113.10
1	A	1242	A	C8-N9-C4	-6.98	103.01	105.80
1	A	1932	C	C2-N1-C1'	6.98	126.47	118.80
1	A	2078	A	OP2-P-O3'	6.98	120.55	105.20
1	A	2456	G	OP1-P-O3'	6.98	120.55	105.20
1	A	2513	G	N1-C6-O6	-6.98	115.71	119.90
1	A	413	C	N3-C2-O2	-6.98	117.02	121.90
1	A	1205	U	C5-C4-O4	6.98	130.09	125.90
1	A	563	G	O5'-P-OP1	6.97	119.07	110.70
1	A	1767	G	N3-C4-C5	-6.97	125.11	128.60
1	A	2727	G	N9-C4-C5	-6.97	102.61	105.40
31	a	659	C	C5-C6-N1	6.97	124.49	121.00
1	A	896	U	C2-N1-C1'	-6.97	109.33	117.70
1	A	1247	G	N9-C1'-C2'	-6.97	104.33	112.00
1	A	1357	G	C6-N1-C2	-6.97	120.92	125.10
1	A	2432	G	N3-C4-N9	-6.97	121.82	126.00
1	A	2437	G	N3-C2-N2	6.97	124.78	119.90
1	A	882	C	N1-C2-O2	6.97	123.08	118.90
1	A	381	G	C6-N1-C2	-6.97	120.92	125.10
1	A	505	U	C6-N1-C2	-6.97	116.82	121.00
1	A	879	U	C2-N3-C4	6.97	131.18	127.00
1	A	996	G	C5-C6-O6	6.97	132.78	128.60
1	A	1035	C	OP1-P-O3'	6.97	120.53	105.20
1	A	1230	G	C8-N9-C4	-6.97	103.61	106.40
2	B	80	G	C6-N1-C2	-6.97	120.92	125.10
1	A	955	A	C8-N9-C4	6.97	108.59	105.80
1	A	1032	A	O5'-P-OP2	-6.97	99.43	105.70
1	A	524	A	P-O3'-C3'	6.97	128.06	119.70
1	A	1068	G	C4-C5-N7	-6.97	108.01	110.80
1	A	2431	C	N3-C4-C5	6.97	124.69	121.90
1	A	2545	A	O4'-C1'-N9	6.97	113.77	108.20
1	A	58	G	N1-C2-N2	-6.96	109.93	116.20
1	A	496	G	C8-N9-C1'	-6.96	117.95	127.00
1	A	582	G	C4-N9-C1'	6.96	135.55	126.50
1	A	967	C	O4'-C1'-N1	6.96	113.77	108.20
1	A	2394	G	C5-C6-N1	-6.96	108.02	111.50
1	A	2892	G	O4'-C1'-N9	6.96	113.77	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	380	U	C2-N1-C1'	-6.96	109.34	117.70
1	A	758	G	C8-N9-C4	-6.96	103.61	106.40
1	A	33	U	N3-C2-O2	-6.96	117.33	122.20
1	A	306	C	C6-N1-C2	-6.96	117.52	120.30
1	A	2851	G	C4-C5-N7	6.96	113.58	110.80
1	A	2055	U	C6-N1-C2	-6.96	116.83	121.00
1	A	2710	C	N3-C2-O2	-6.96	117.03	121.90
1	A	858	U	C6-N1-C2	-6.96	116.83	121.00
1	A	2237	U	N1-C2-O2	6.96	127.67	122.80
1	A	2555	U	N1-C2-O2	6.96	127.67	122.80
1	A	300	G	N3-C4-C5	6.95	132.08	128.60
1	A	460	C	C2-N1-C1'	6.95	126.45	118.80
1	A	1174	U	O5'-P-OP1	6.95	119.04	110.70
1	A	1591	G	C8-N9-C1'	-6.95	117.96	127.00
1	A	71	A	N1-C6-N6	6.95	122.77	118.60
1	A	595	G	O5'-P-OP1	-6.95	99.44	105.70
1	A	840	C	C6-N1-C2	-6.95	117.52	120.30
1	A	1692	C	N3-C2-O2	-6.95	117.03	121.90
1	A	2503	A	N1-C6-N6	-6.95	114.43	118.60
1	A	714	G	C4-C5-C6	6.95	122.97	118.80
1	A	2442	G	C5-N7-C8	6.95	107.77	104.30
1	A	557	G	N3-C4-C5	-6.95	125.13	128.60
1	A	1175	G	C5-N7-C8	-6.95	100.83	104.30
1	A	1691	G	C8-N9-C1'	6.95	136.03	127.00
1	A	2062	G	O5'-P-OP1	6.95	119.03	110.70
1	A	177	G	C8-N9-C4	-6.94	103.62	106.40
1	A	1183	G	C6-N1-C2	-6.94	120.94	125.10
1	A	1591	G	C4-N9-C1'	6.94	135.53	126.50
1	A	2840	A	C6-C5-N7	-6.94	127.44	132.30
1	A	252	C	N3-C4-C5	6.94	124.68	121.90
1	A	1701	U	C6-N1-C2	-6.94	116.83	121.00
1	A	2646	U	O4'-C1'-N1	6.94	113.75	108.20
1	A	1043	U	C2-N1-C1'	6.94	126.03	117.70
1	A	1239	C	N3-C4-C5	-6.94	119.12	121.90
1	A	2106	U	N3-C2-O2	-6.94	117.34	122.20
1	A	157	U	C6-N1-C1'	-6.93	111.49	121.20
1	A	519	G	OP1-P-O3'	6.93	120.46	105.20
1	A	2916	U	C6-N1-C2	-6.93	116.84	121.00
31	a	431	G	C4-N9-C1'	6.93	135.51	126.50
1	A	586	C	N1-C2-N3	6.93	124.05	119.20
1	A	1294	G	C8-N9-C1'	-6.93	117.99	127.00
1	A	2059	G	C5-N7-C8	6.93	107.76	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	a	1392	C	C6-N1-C2	-6.93	117.53	120.30
1	A	1933	G	N3-C4-C5	6.93	132.06	128.60
1	A	2053	U	C5-C4-O4	6.93	130.06	125.90
1	A	2542	C	O5'-P-OP1	6.93	119.01	110.70
1	A	177	G	N9-C4-C5	-6.93	102.63	105.40
1	A	243	U	O5'-P-OP1	-6.93	99.47	105.70
1	A	1034	A	N3-C4-N9	6.93	132.94	127.40
1	A	1702	C	N3-C2-O2	-6.93	117.05	121.90
1	A	2396	A	N7-C8-N9	6.93	117.26	113.80
1	A	2497	G	N9-C4-C5	-6.93	102.63	105.40
1	A	152	C	C2-N3-C4	6.92	123.36	119.90
1	A	704	U	N1-C2-O2	6.92	127.65	122.80
1	A	649	U	N3-C4-C5	6.92	118.75	114.60
1	A	502	C	N3-C2-O2	-6.92	117.06	121.90
1	A	819	A	N1-C2-N3	-6.92	125.84	129.30
1	A	2024	A	C5-N7-C8	-6.92	100.44	103.90
1	A	1772	G	C2-N3-C4	6.92	115.36	111.90
1	A	2497	G	C2-N3-C4	-6.92	108.44	111.90
1	A	2805	A	O5'-P-OP2	-6.92	99.47	105.70
1	A	1370	C	C5-C6-N1	6.92	124.46	121.00
1	A	2425	U	N3-C2-O2	-6.92	117.36	122.20
1	A	2648	G	C5-C6-N1	6.92	114.96	111.50
1	A	228	A	O5'-P-OP2	-6.92	99.48	105.70
1	A	493	A	C4-C5-N7	6.92	114.16	110.70
1	A	1207	G	N1-C2-N2	-6.92	109.98	116.20
1	A	555	C	OP1-P-OP2	-6.91	109.23	119.60
1	A	910	C	N3-C4-N4	-6.91	113.16	118.00
1	A	1186	A	C2-N3-C4	6.91	114.06	110.60
1	A	1224	U	C6-N1-C2	-6.91	116.85	121.00
1	A	470	G	C8-N9-C4	-6.91	103.64	106.40
1	A	949	C	N1-C2-O2	6.91	123.05	118.90
1	A	1712	A	N1-C2-N3	-6.91	125.84	129.30
1	A	2890	C	N3-C4-N4	-6.91	113.16	118.00
1	A	355	G	C4-N9-C1'	6.91	135.48	126.50
1	A	925	G	N3-C4-N9	6.91	130.15	126.00
1	A	1712	A	C6-C5-N7	6.91	137.14	132.30
1	A	2686	G	N7-C8-N9	6.91	116.56	113.10
1	A	733	U	C6-N1-C2	-6.91	116.86	121.00
1	A	1343	U	C2-N1-C1'	6.91	125.99	117.70
1	A	1980	A	C4-N9-C1'	6.91	138.73	126.30
1	A	2397	G	C1'-O4'-C4'	-6.91	104.38	109.90
1	A	642	U	O4'-C1'-N1	6.90	113.72	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	857	C	OP1-P-O3'	6.90	120.39	105.20
1	A	1002	U	N3-C4-C5	-6.90	110.46	114.60
1	A	2419	A	C4-N9-C1'	6.90	138.73	126.30
1	A	522	G	N1-C2-N2	6.90	122.41	116.20
1	A	567	G	N1-C6-O6	-6.90	115.76	119.90
1	A	253	G	N1-C6-O6	-6.90	115.76	119.90
1	A	2059	G	C5-C6-O6	6.90	132.74	128.60
1	A	2081	A	C6-N1-C2	-6.90	114.46	118.60
1	A	357	U	N1-C2-O2	6.90	127.63	122.80
1	A	376	A	N9-C4-C5	6.90	108.56	105.80
1	A	1273	G	C4-N9-C1'	-6.90	117.53	126.50
1	A	2009	U	N1-C2-N3	6.90	119.04	114.90
1	A	2386	C	C6-N1-C2	-6.90	117.54	120.30
1	A	590	U	C4-C5-C6	-6.90	115.56	119.70
1	A	668	C	C5'-C4'-O4'	-6.90	100.82	109.10
1	A	967	C	N3-C4-N4	-6.90	113.17	118.00
1	A	1039	C	N1-C2-O2	6.90	123.04	118.90
1	A	1268	C	N3-C4-N4	-6.90	113.17	118.00
1	A	1307	G	C5-C6-N1	6.90	114.95	111.50
1	A	2867	U	C5-C4-O4	6.90	130.04	125.90
1	A	527	G	N1-C2-N2	-6.90	109.99	116.20
1	A	1051	C	N1-C2-N3	6.89	124.03	119.20
1	A	1252	A	N7-C8-N9	6.89	117.25	113.80
1	A	1262	U	OP1-P-OP2	-6.89	109.26	119.60
1	A	1351	C	C6-N1-C1'	-6.89	112.53	120.80
1	A	2556	G	O4'-C1'-N9	6.89	113.71	108.20
1	A	2803	A	C5-C6-N1	6.89	121.15	117.70
31	a	1213	C	C2-N1-C1'	6.89	126.38	118.80
1	A	1086	G	C4-N9-C1'	-6.89	117.55	126.50
1	A	2084	G	N9-C4-C5	6.89	108.16	105.40
1	A	2608	G	C6-C5-N7	-6.89	126.27	130.40
1	A	1374	G	C5-N7-C8	-6.89	100.86	104.30
1	A	2108	U	N3-C2-O2	-6.89	117.38	122.20
1	A	2881	C	C6-N1-C2	-6.89	117.55	120.30
31	a	55	C	C6-N1-C1'	-6.89	112.54	120.80
1	A	69	C	P-O3'-C3'	6.88	127.96	119.70
1	A	822	G	C5-C6-N1	6.88	114.94	111.50
1	A	1256	U	C4'-C3'-O3'	6.88	126.77	113.00
1	A	49	A	N7-C8-N9	6.88	117.24	113.80
1	A	354	A	OP1-P-OP2	-6.88	109.28	119.60
1	A	1654	A	C8-N9-C4	-6.88	103.05	105.80
1	A	420	A	C6-C5-N7	-6.88	127.48	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	361	U	P-O3'-C3'	6.88	127.96	119.70
1	A	2525	C	N3-C4-N4	-6.88	113.18	118.00
1	A	425	G	C8-N9-C1'	6.88	135.94	127.00
1	A	1253	G	C5-C6-O6	6.88	132.73	128.60
1	A	2046	U	C2-N1-C1'	6.88	125.95	117.70
1	A	2073	G	N3-C4-C5	-6.88	125.16	128.60
31	a	1394	C	C6-N1-C2	-6.88	117.55	120.30
1	A	35	G	C6-N1-C2	-6.88	120.97	125.10
1	A	602	G	N1-C6-O6	-6.88	115.77	119.90
1	A	610	U	O5'-P-OP2	-6.88	99.51	105.70
1	A	2804	G	C8-N9-C4	-6.88	103.65	106.40
1	A	734	A	N1-C6-N6	-6.87	114.48	118.60
1	A	1321	A	C4-C5-N7	-6.87	107.26	110.70
1	A	2078	A	P-O3'-C3'	6.87	127.95	119.70
1	A	2855	A	N1-C2-N3	-6.87	125.86	129.30
1	A	858	U	C5'-C4'-O4'	6.87	117.34	109.10
1	A	1238	U	C5-C4-O4	6.87	130.02	125.90
1	A	819	A	C2-N3-C4	6.87	114.03	110.60
1	A	2440	G	N3-C4-C5	-6.87	125.17	128.60
1	A	500	A	C8-N9-C1'	-6.87	115.34	127.70
1	A	2339	U	N3-C2-O2	-6.87	117.39	122.20
1	A	1059	A	C5-C6-N1	6.87	121.13	117.70
1	A	2639	C	N3-C4-C5	6.87	124.65	121.90
1	A	200	A	OP1-P-O3'	6.86	120.30	105.20
1	A	267	G	C2-N3-C4	-6.86	108.47	111.90
1	A	344	U	C5-C6-N1	-6.86	119.27	122.70
1	A	2418	G	N1-C6-O6	-6.86	115.78	119.90
1	A	623	C	C6-N1-C2	-6.86	117.56	120.30
1	A	2475	A	O5'-P-OP1	6.86	118.93	110.70
1	A	2636	U	C5-C6-N1	6.86	126.13	122.70
1	A	543	G	C8-N9-C4	-6.86	103.66	106.40
1	A	868	A	C6-N1-C2	-6.86	114.48	118.60
1	A	2225	A	O4'-C1'-N9	6.86	113.69	108.20
1	A	1365	G	C5-C6-O6	-6.86	124.48	128.60
1	A	2007	G	C5-C6-N1	6.86	114.93	111.50
31	a	1441	C	C6-N1-C2	-6.86	117.56	120.30
1	A	668	C	C2-N1-C1'	6.86	126.34	118.80
1	A	1301	U	N3-C2-O2	-6.86	117.40	122.20
1	A	2482	G	N7-C8-N9	6.86	116.53	113.10
1	A	2658	G	C2-N3-C4	-6.86	108.47	111.90
1	A	272	C	C5-C4-N4	6.85	125.00	120.20
1	A	1275	A	N9-C1'-C2'	6.85	122.91	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2434	A	O5'-P-OP1	-6.85	99.53	105.70
1	A	429	C	O4'-C1'-N1	6.85	113.68	108.20
1	A	1077	U	N3-C2-O2	-6.85	117.40	122.20
1	A	1356	G	N3-C2-N2	6.85	124.70	119.90
1	A	2052	C	N3-C4-N4	-6.85	113.20	118.00
1	A	2287	C	N1-C2-O2	6.85	123.01	118.90
1	A	2453	A	OP1-P-OP2	-6.85	109.32	119.60
31	a	599	U	N3-C2-O2	-6.85	117.40	122.20
1	A	556	U	C6-N1-C2	-6.85	116.89	121.00
1	A	1041	G	N3-C2-N2	6.85	124.69	119.90
1	A	2006	C	C6-N1-C2	-6.85	117.56	120.30
1	A	2304	G	N1-C6-O6	-6.85	115.79	119.90
1	A	2514	G	N3-C2-N2	-6.85	115.11	119.90
31	a	835	U	C2-N1-C1'	6.85	125.92	117.70
1	A	2814	C	C5-C4-N4	6.85	124.99	120.20
1	A	850	G	N9-C4-C5	6.84	108.14	105.40
1	A	1591	G	O4'-C1'-N9	-6.84	102.72	108.20
1	A	1720	A	N1-C2-N3	-6.84	125.88	129.30
1	A	2373	A	C2-N3-C4	6.84	114.02	110.60
1	A	21	A	C5-N7-C8	-6.84	100.48	103.90
31	a	1277	C	N1-C2-O2	6.84	123.01	118.90
1	A	626	G	OP1-P-OP2	-6.84	109.34	119.60
1	A	1195	A	C4-C5-C6	6.84	120.42	117.00
1	A	1614	A	C8-N9-C4	-6.84	103.06	105.80
31	a	1451	G	N3-C4-N9	6.84	130.10	126.00
1	A	90	A	N3-C4-C5	-6.84	122.01	126.80
1	A	550	A	N3-C4-C5	-6.84	122.01	126.80
1	A	1295	C	C2-N1-C1'	-6.84	111.28	118.80
1	A	1649	C	N1-C2-O2	6.84	123.00	118.90
1	A	2007	G	N3-C4-N9	6.84	130.10	126.00
1	A	2570	G	C2-N3-C4	6.84	115.32	111.90
1	A	664	G	C5-C6-N1	6.84	114.92	111.50
1	A	866	A	N3-C4-N9	6.84	132.87	127.40
1	A	1265	G	N1-C2-N3	6.84	128.00	123.90
1	A	352	A	C5-C6-N6	6.83	129.17	123.70
1	A	350	G	N7-C8-N9	6.83	116.52	113.10
1	A	588	G	C8-N9-C1'	-6.83	118.12	127.00
1	A	2326	G	N7-C8-N9	6.83	116.52	113.10
1	A	2471	G	N1-C2-N2	-6.83	110.05	116.20
1	A	90	A	C2-N3-C4	6.83	114.01	110.60
1	A	267	G	N1-C2-N3	6.83	128.00	123.90
1	A	374	U	C4-C5-C6	6.83	123.80	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	a	1012	G	N3-C4-N9	6.83	130.10	126.00
31	a	1389	G	N3-C4-C5	-6.83	125.19	128.60
31	a	1131	C	C2-N1-C1'	6.83	126.31	118.80
1	A	356	A	C5-N7-C8	-6.83	100.49	103.90
1	A	1231	A	N3-C4-N9	6.83	132.86	127.40
1	A	1286	G	O5'-P-OP1	-6.83	99.56	105.70
1	A	2394	G	N1-C6-O6	-6.83	115.80	119.90
1	A	2685	C	C4-C5-C6	-6.83	113.99	117.40
31	a	477	U	N1-C2-O2	6.83	127.58	122.80
1	A	1286	G	N3-C4-N9	6.82	130.09	126.00
1	A	2446	U	O5'-P-OP2	6.82	118.89	110.70
1	A	371	U	N3-C4-C5	6.82	118.69	114.60
1	A	1387	C	N1-C2-O2	6.82	122.99	118.90
1	A	1699	A	C5-C6-N1	6.82	121.11	117.70
1	A	2055	U	O5'-P-OP1	-6.82	99.56	105.70
1	A	2369	C	O4'-C1'-N1	6.82	113.65	108.20
1	A	2811	U	C2-N3-C4	-6.82	122.91	127.00
1	A	88	G	C4-N9-C1'	6.82	135.36	126.50
1	A	720	A	C6-C5-N7	6.82	137.07	132.30
1	A	996	G	C4-C5-N7	6.82	113.53	110.80
1	A	1169	G	N3-C4-C5	6.82	132.01	128.60
1	A	1473	G	C4-N9-C1'	6.82	135.36	126.50
1	A	2042	A	O3'-P-O5'	6.82	116.95	104.00
1	A	2427	G	C6-C5-N7	-6.82	126.31	130.40
1	A	2550	G	N3-C2-N2	6.82	124.67	119.90
1	A	2652	G	P-O3'-C3'	6.82	127.88	119.70
1	A	820	G	C5-C6-N1	6.81	114.91	111.50
1	A	1037	A	C8-N9-C4	-6.81	103.08	105.80
1	A	2541	U	OP1-P-O3'	6.81	120.19	105.20
1	A	1233	A	C5-C6-N6	-6.81	118.25	123.70
1	A	2436	G	C5-C6-N1	6.81	114.91	111.50
1	A	2471	G	C2-N3-C4	-6.81	108.50	111.90
1	A	341	G	C4'-C3'-O3'	6.81	126.62	113.00
1	A	714	G	N3-C2-N2	6.81	124.67	119.90
1	A	2040	A	C5-C6-N1	6.81	121.10	117.70
1	A	2442	G	C4-C5-C6	6.81	122.88	118.80
1	A	246	U	C2-N1-C1'	6.80	125.87	117.70
1	A	255	G	C2-N3-C4	-6.80	108.50	111.90
1	A	332	A	C4-C5-N7	-6.80	107.30	110.70
1	A	1057	A	C8-N9-C4	6.80	108.52	105.80
1	A	2529	G	C8-N9-C4	-6.80	103.68	106.40
1	A	2461	A	N9-C4-C5	-6.80	103.08	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2481	G	OP1-P-OP2	-6.80	109.40	119.60
31	a	513	G	N3-C4-C5	-6.80	125.20	128.60
1	A	541	G	C5-C6-N1	6.80	114.90	111.50
1	A	1250	G	C5-C6-N1	6.80	114.90	111.50
1	A	52	A	N9-C4-C5	6.80	108.52	105.80
1	A	588	G	N3-C4-C5	-6.80	125.20	128.60
1	A	632	U	O5'-P-OP2	-6.80	99.58	105.70
1	A	1050	C	N3-C4-C5	-6.80	119.18	121.90
1	A	1259	U	C6-N1-C2	-6.80	116.92	121.00
1	A	2761	C	N3-C2-O2	-6.80	117.14	121.90
1	A	20	C	N3-C2-O2	-6.79	117.14	121.90
1	A	342	A	O4'-C1'-N9	6.79	113.64	108.20
1	A	583	A	C2-N3-C4	6.79	114.00	110.60
1	A	1481	A	N9-C4-C5	-6.79	103.08	105.80
1	A	45	G	P-O3'-C3'	6.79	127.85	119.70
1	A	382	U	C2-N3-C4	6.79	131.07	127.00
1	A	869	G	C5-C6-N1	6.79	114.90	111.50
1	A	1983	U	N1-C2-O2	6.79	127.55	122.80
1	A	2674	U	N3-C2-O2	-6.79	117.45	122.20
31	a	164	C	N1-C2-O2	6.79	122.97	118.90
1	A	1182	G	N1-C2-N2	-6.79	110.09	116.20
1	A	2075	G	N3-C4-C5	-6.79	125.20	128.60
1	A	2283	G	N9-C4-C5	-6.79	102.68	105.40
1	A	381	G	C5-C6-O6	-6.79	124.53	128.60
1	A	1050	C	O5'-P-OP2	6.79	118.85	110.70
1	A	1063	U	N1-C2-O2	6.79	127.55	122.80
1	A	2887	G	C4-N9-C1'	6.79	135.32	126.50
1	A	1961	C	C6-N1-C2	-6.79	117.59	120.30
1	A	2309	G	N3-C4-N9	-6.79	121.93	126.00
31	a	1219	C	N1-C2-O2	6.79	122.97	118.90
1	A	180	G	C2-N3-C4	6.78	115.29	111.90
1	A	867	U	C2-N1-C1'	-6.78	109.56	117.70
1	A	1394	U	N1-C2-N3	6.78	118.97	114.90
1	A	1789	A	C8-N9-C4	-6.78	103.09	105.80
1	A	2073	G	N3-C4-N9	6.78	130.07	126.00
1	A	2867	U	C2-N3-C4	-6.78	122.93	127.00
1	A	1306	A	N9-C4-C5	-6.78	103.09	105.80
1	A	350	G	N3-C4-N9	6.78	130.07	126.00
1	A	350	G	N1-C6-O6	6.78	123.97	119.90
1	A	470	G	C5-C6-O6	6.78	132.67	128.60
1	A	1232	G	C2-N3-C4	-6.78	108.51	111.90
1	A	2690	G	C6-C5-N7	-6.78	126.33	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2859	G	O5'-P-OP1	-6.78	99.60	105.70
1	A	193	A	C5-N7-C8	-6.78	100.51	103.90
1	A	2284	U	C4-C5-C6	6.78	123.77	119.70
1	A	2437	G	C4-C5-N7	6.78	113.51	110.80
1	A	13	A	C4-N9-C1'	6.77	138.49	126.30
1	A	1223	A	OP1-P-O3'	6.77	120.10	105.20
1	A	2052	C	C4'-C3'-O3'	6.77	126.54	113.00
1	A	2265	G	C2-N3-C4	6.77	115.29	111.90
1	A	295	G	N3-C2-N2	-6.77	115.16	119.90
1	A	1092	A	N9-C4-C5	-6.77	103.09	105.80
1	A	31	C	C5-C4-N4	6.77	124.94	120.20
1	A	184	C	C6-N1-C2	-6.77	117.59	120.30
1	A	1054	A	C4-N9-C1'	6.77	138.49	126.30
1	A	2309	G	N1-C2-N3	6.77	127.96	123.90
31	a	586	C	C6-N1-C2	-6.77	117.59	120.30
1	A	59	U	C2-N3-C4	-6.77	122.94	127.00
1	A	2477	A	C5-C6-N6	6.77	129.11	123.70
1	A	116	G	C5-N7-C8	-6.77	100.92	104.30
1	A	2917	U	C6-N1-C1'	6.77	130.67	121.20
1	A	1948	G	C4-C5-N7	6.76	113.51	110.80
1	A	334	A	O5'-P-OP1	-6.76	99.61	105.70
1	A	884	U	O5'-P-OP2	6.76	118.81	110.70
1	A	1048	U	C6-N1-C1'	6.76	130.67	121.20
31	a	743	C	C5-C6-N1	6.76	124.38	121.00
1	A	45	G	N1-C2-N3	6.76	127.96	123.90
1	A	521	U	C6-N1-C2	-6.76	116.94	121.00
1	A	2862	C	C5-C6-N1	6.76	124.38	121.00
1	A	563	G	N3-C2-N2	6.76	124.63	119.90
1	A	1004	A	O4'-C1'-N9	6.76	113.61	108.20
1	A	2054	G	C5-N7-C8	-6.76	100.92	104.30
2	B	100	U	C6-N1-C1'	-6.76	111.74	121.20
1	A	110	A	N1-C6-N6	-6.76	114.55	118.60
1	A	238	U	N3-C2-O2	6.76	126.93	122.20
1	A	2265	G	C5-C6-N1	6.76	114.88	111.50
1	A	2483	C	OP1-P-OP2	-6.76	109.46	119.60
1	A	532	C	N3-C2-O2	-6.76	117.17	121.90
1	A	1266	G	N9-C4-C5	-6.76	102.70	105.40
1	A	459	C	N3-C2-O2	-6.75	117.17	121.90
1	A	1023	A	C2-N3-C4	6.75	113.98	110.60
1	A	2851	G	C5-N7-C8	-6.75	100.92	104.30
1	A	1566	G	N3-C2-N2	-6.75	115.17	119.90
31	a	355	G	N9-C4-C5	-6.75	102.70	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2326	G	C5-N7-C8	-6.75	100.92	104.30
1	A	2661	A	N3-C4-N9	6.75	132.80	127.40
1	A	666	A	N1-C6-N6	-6.75	114.55	118.60
1	A	26	G	C6-N1-C2	-6.75	121.05	125.10
1	A	2572	G	N1-C6-O6	-6.75	115.85	119.90
1	A	2644	C	N3-C4-N4	-6.75	113.28	118.00
1	A	669	C	P-O5'-C5'	6.75	131.69	120.90
1	A	1046	G	OP1-P-O3'	6.75	120.04	105.20
1	A	1285	A	N1-C2-N3	-6.75	125.93	129.30
1	A	2024	A	N9-C4-C5	-6.75	103.10	105.80
1	A	863	G	C8-N9-C1'	-6.75	118.23	127.00
1	A	564	U	C6-N1-C2	-6.74	116.95	121.00
1	A	818	U	O5'-P-OP2	-6.74	99.63	105.70
1	A	2091	C	N3-C4-C5	-6.74	119.20	121.90
1	A	1365	G	C5-C6-N1	6.74	114.87	111.50
1	A	375	A	N3-C4-N9	6.74	132.79	127.40
1	A	2410	G	C5-C6-N1	6.74	114.87	111.50
1	A	571	A	C4-N9-C1'	-6.74	114.17	126.30
1	A	1179	C	O5'-P-OP1	-6.74	99.64	105.70
1	A	2550	G	C5-C6-O6	6.74	132.64	128.60
1	A	975	U	C2-N3-C4	-6.74	122.96	127.00
1	A	1284	A	C4-N9-C1'	-6.74	114.17	126.30
1	A	302	A	N9-C4-C5	-6.73	103.11	105.80
1	A	949	C	N3-C2-O2	-6.73	117.19	121.90
1	A	1047	G	C2-N3-C4	-6.73	108.53	111.90
1	A	1510	U	N3-C2-O2	-6.73	117.49	122.20
1	A	2551	G	C8-N9-C1'	-6.73	118.25	127.00
31	a	1451	G	N7-C8-N9	6.73	116.47	113.10
1	A	485	A	C5-C6-N1	6.73	121.06	117.70
1	A	817	G	C4-C5-N7	6.73	113.49	110.80
1	A	2481	G	C5-N7-C8	6.73	107.67	104.30
31	a	437	U	P-O3'-C3'	6.73	127.77	119.70
1	A	1225	G	C2-N3-C4	-6.73	108.54	111.90
1	A	2517	G	C8-N9-C1'	6.73	135.75	127.00
1	A	1262	U	C5-C4-O4	6.73	129.94	125.90
31	a	513	G	C2-N3-C4	6.73	115.26	111.90
1	A	70	G	C5-C6-N1	-6.72	108.14	111.50
1	A	719	G	C8-N9-C4	-6.72	103.71	106.40
1	A	997	G	O5'-P-OP2	-6.72	99.65	105.70
1	A	2540	A	N1-C6-N6	-6.72	114.57	118.60
31	a	216	G	C5-C6-O6	-6.72	124.56	128.60
1	A	52	A	C5-N7-C8	-6.72	100.54	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2075	G	C5-C6-N1	6.72	114.86	111.50
1	A	1194	U	N3-C2-O2	-6.72	117.50	122.20
1	A	2899	A	C4-N9-C1'	6.72	138.40	126.30
31	a	711	G	P-O3'-C3'	6.72	127.76	119.70
1	A	407	G	C4-C5-N7	6.72	113.49	110.80
1	A	1011	U	O5'-P-OP2	-6.72	99.65	105.70
1	A	33	U	N1-C2-O2	6.72	127.50	122.80
1	A	578	G	N9-C4-C5	6.72	108.09	105.40
1	A	1277	C	N3-C2-O2	-6.72	117.20	121.90
1	A	1290	G	P-O3'-C3'	6.72	127.76	119.70
1	A	2906	G	N3-C4-C5	-6.72	125.24	128.60
1	A	1409	U	N3-C2-O2	-6.71	117.50	122.20
1	A	1447	A	N9-C4-C5	-6.71	103.11	105.80
1	A	2650	G	N3-C4-N9	6.71	130.03	126.00
31	a	1405	C	N3-C2-O2	-6.71	117.20	121.90
1	A	23	G	N3-C4-N9	6.71	130.03	126.00
1	A	302	A	C2-N3-C4	6.71	113.96	110.60
1	A	495	A	C4-C5-C6	-6.71	113.64	117.00
1	A	853	G	N7-C8-N9	6.71	116.46	113.10
1	A	2418	G	C5-C6-O6	6.71	132.63	128.60
1	A	174	U	N1-C2-O2	6.71	127.50	122.80
1	A	2544	C	C6-N1-C2	-6.71	117.62	120.30
1	A	1214	C	C5-C6-N1	6.71	124.35	121.00
1	A	2887	G	N3-C2-N2	6.71	124.60	119.90
1	A	45	G	N7-C8-N9	6.71	116.45	113.10
1	A	176	A	N9-C4-C5	-6.71	103.12	105.80
1	A	1346	G	N3-C4-N9	6.71	130.02	126.00
1	A	1832	C	N3-C4-C5	6.71	124.58	121.90
31	a	109	C	N3-C2-O2	-6.71	117.21	121.90
1	A	1182	G	N3-C4-C5	-6.70	125.25	128.60
1	A	2804	G	C6-N1-C2	-6.70	121.08	125.10
1	A	1236	G	C5-C6-O6	-6.70	124.58	128.60
1	A	2462	A	N1-C6-N6	-6.70	114.58	118.60
31	a	245	C	C2-N1-C1'	6.70	126.17	118.80
31	a	1080	C	N1-C2-O2	6.70	122.92	118.90
1	A	2665	G	N3-C4-N9	-6.70	121.98	126.00
1	A	1036	C	N3-C4-N4	-6.70	113.31	118.00
1	A	1162	C	N3-C2-O2	-6.70	117.21	121.90
1	A	1193	U	O4'-C1'-N1	6.70	113.56	108.20
1	A	1979	A	C4-C5-C6	-6.70	113.65	117.00
1	A	1983	U	N3-C2-O2	-6.70	117.51	122.20
1	A	1200	A	O4'-C1'-N9	-6.69	102.84	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	551	G	C4-C5-N7	6.69	113.48	110.80
1	A	205	U	N3-C4-O4	-6.69	114.72	119.40
1	A	1231	A	N1-C6-N6	6.69	122.61	118.60
1	A	2518	U	N1-C2-N3	6.69	118.91	114.90
1	A	2713	G	N1-C6-O6	-6.69	115.89	119.90
1	A	1206	G	C5-C6-O6	6.69	132.61	128.60
1	A	236	A	N3-C4-C5	-6.69	122.12	126.80
1	A	355	G	C8-N9-C1'	-6.69	118.31	127.00
1	A	368	A	N1-C6-N6	6.69	122.61	118.60
1	A	666	A	C5-C6-N6	-6.69	118.35	123.70
1	A	2714	U	C5-C4-O4	-6.69	121.89	125.90
1	A	1259	U	C2-N1-C1'	6.69	125.72	117.70
1	A	1180	G	C2-N3-C4	6.68	115.24	111.90
31	a	109	C	N1-C2-O2	6.68	122.91	118.90
1	A	34	U	C5-C4-O4	6.68	129.91	125.90
1	A	378	C	C6-N1-C2	-6.68	117.63	120.30
1	A	1064	A	OP1-P-OP2	6.68	129.62	119.60
1	A	1084	U	C2-N1-C1'	6.68	125.72	117.70
1	A	1648	C	C6-N1-C2	-6.68	117.63	120.30
1	A	2918	A	N9-C4-C5	6.68	108.47	105.80
2	B	24	C	C2-N1-C1'	6.68	126.15	118.80
1	A	208	G	O4'-C1'-N9	6.68	113.54	108.20
1	A	1302	G	C6-C5-N7	-6.68	126.39	130.40
1	A	2395	C	N3-C4-C5	-6.68	119.23	121.90
1	A	2553	G	N1-C6-O6	-6.68	115.89	119.90
31	a	460	A	P-O3'-C3'	6.68	127.72	119.70
1	A	14	A	C6-N1-C2	-6.68	114.59	118.60
1	A	300	G	O4'-C1'-N9	6.68	113.54	108.20
1	A	2019	G	N3-C2-N2	-6.68	115.23	119.90
1	A	1181	G	C5-C6-O6	-6.68	124.59	128.60
1	A	2550	G	C4-C5-N7	-6.67	108.13	110.80
31	a	188	U	N1-C2-O2	6.67	127.47	122.80
31	a	431	G	N3-C4-N9	6.67	130.00	126.00
1	A	176	A	O4'-C1'-N9	-6.67	102.86	108.20
1	A	860	U	OP1-P-OP2	6.67	129.61	119.60
1	A	1241	A	C5'-C4'-O4'	6.67	117.11	109.10
1	A	2446	U	N3-C4-O4	-6.67	114.73	119.40
1	A	368	A	C8-N9-C4	-6.67	103.13	105.80
1	A	901	G	N1-C2-N2	-6.67	110.20	116.20
1	A	1274	G	N9-C1'-C2'	6.67	122.67	114.00
1	A	2518	U	N3-C2-O2	-6.67	117.53	122.20
1	A	439	U	C6-N1-C1'	-6.67	111.86	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	878	C	N3-C4-C5	6.67	124.57	121.90
1	A	2035	C	N1-C2-O2	6.67	122.90	118.90
1	A	2378	G	P-O3'-C3'	6.67	127.70	119.70
1	A	383	A	C6-C5-N7	6.67	136.97	132.30
1	A	2368	G	N3-C4-C5	6.66	131.93	128.60
1	A	2591	A	C8-N9-C4	-6.66	103.14	105.80
31	a	135	C	C6-N1-C2	-6.66	117.63	120.30
1	A	125	A	C2-N3-C4	-6.66	107.27	110.60
31	a	1313	C	N1-C2-O2	6.66	122.90	118.90
1	A	367	A	C2-N3-C4	6.66	113.93	110.60
1	A	582	G	O5'-P-OP1	6.66	118.69	110.70
1	A	1363	U	C6-N1-C1'	-6.66	111.88	121.20
1	A	2100	C	N1-C2-O2	6.66	122.90	118.90
1	A	1355	A	N3-C4-C5	6.66	131.46	126.80
1	A	2048	G	O4'-C1'-N9	6.66	113.53	108.20
1	A	2394	G	C8-N9-C1'	6.66	135.66	127.00
1	A	433	U	C2-N1-C1'	6.66	125.69	117.70
1	A	994	A	C4-C5-C6	-6.66	113.67	117.00
1	A	2462	A	C5-C6-N1	6.66	121.03	117.70
1	A	253	G	C2-N3-C4	6.65	115.23	111.90
1	A	621	A	C6-C5-N7	6.65	136.96	132.30
31	a	707	C	C6-N1-C2	-6.65	117.64	120.30
31	a	1293	C	C5-C6-N1	6.65	124.33	121.00
1	A	36	G	N1-C2-N2	-6.65	110.21	116.20
1	A	639	U	C4'-C3'-O3'	6.65	126.30	113.00
31	a	1439	C	C2-N1-C1'	6.65	126.12	118.80
1	A	32	C	C6-N1-C1'	6.65	128.78	120.80
1	A	218	G	N7-C8-N9	6.65	116.43	113.10
1	A	381	G	N1-C2-N2	-6.65	110.21	116.20
1	A	906	A	C6-N1-C2	-6.65	114.61	118.60
1	A	1351	C	C4-C5-C6	-6.65	114.08	117.40
1	A	264	G	N9-C4-C5	6.65	108.06	105.40
1	A	505	U	C2-N1-C1'	6.65	125.68	117.70
1	A	1694	A	N9-C4-C5	-6.65	103.14	105.80
1	A	2396	A	N3-C4-N9	6.65	132.72	127.40
1	A	1205	U	C2-N3-C4	-6.65	123.01	127.00
31	a	338	C	N3-C2-O2	-6.64	117.25	121.90
31	a	1318	U	C5-C6-N1	6.64	126.02	122.70
31	a	1466	G	N3-C4-N9	6.64	129.99	126.00
1	A	21	A	C5-C6-N1	6.64	121.02	117.70
1	A	243	U	OP1-P-OP2	-6.64	109.64	119.60
1	A	844	G	N1-C6-O6	-6.64	115.92	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	920	A	C4-C5-C6	-6.64	113.68	117.00
1	A	2285	C	C5-C4-N4	-6.64	115.55	120.20
1	A	2474	G	C2-N3-C4	-6.64	108.58	111.90
31	a	1163	G	N3-C4-N9	6.64	129.99	126.00
1	A	1210	U	C5-C6-N1	6.64	126.02	122.70
31	a	431	G	N3-C4-C5	-6.64	125.28	128.60
1	A	2641	A	N1-C2-N3	-6.64	125.98	129.30
1	A	2762	G	N1-C6-O6	-6.64	115.92	119.90
1	A	32	C	C2-N1-C1'	-6.64	111.50	118.80
1	A	1174	U	C3'-C2'-C1'	-6.64	96.19	101.50
1	A	1487	G	C8-N9-C1'	6.64	135.63	127.00
1	A	2914	A	N9-C4-C5	-6.64	103.14	105.80
1	A	204	C	C6-N1-C2	-6.63	117.65	120.30
1	A	292	U	C2-N1-C1'	6.63	125.66	117.70
1	A	557	G	N9-C4-C5	-6.63	102.75	105.40
1	A	857	C	C6-N1-C1'	-6.63	112.84	120.80
1	A	1178	C	C2-N3-C4	-6.63	116.58	119.90
1	A	1672	G	N1-C6-O6	-6.63	115.92	119.90
1	A	2238	U	N3-C2-O2	-6.63	117.56	122.20
1	A	2383	C	C6-N1-C2	-6.63	117.65	120.30
31	a	1081	U	N3-C2-O2	-6.63	117.56	122.20
1	A	1202	C	N3-C4-N4	6.63	122.64	118.00
1	A	90	A	O4'-C1'-N9	-6.63	102.89	108.20
1	A	355	G	O5'-P-OP2	-6.63	99.73	105.70
1	A	1694	A	C5-C6-N1	6.63	121.02	117.70
1	A	2318	U	C2-N3-C4	-6.63	123.02	127.00
1	A	2444	C	C2-N1-C1'	6.63	126.09	118.80
1	A	2889	G	C5-C6-N1	6.63	114.82	111.50
1	A	2683	U	N1-C2-O2	6.63	127.44	122.80
1	A	908	A	N1-C2-N3	6.63	132.62	129.30
1	A	2690	G	C5-N7-C8	-6.63	100.99	104.30
1	A	181	G	N3-C4-N9	6.63	129.98	126.00
1	A	2603	G	C5-C6-O6	-6.63	124.62	128.60
1	A	596	G	C8-N9-C4	-6.62	103.75	106.40
1	A	757	G	N3-C4-N9	6.62	129.97	126.00
1	A	1384	G	N1-C6-O6	-6.62	115.92	119.90
1	A	2492	C	C5-C6-N1	6.62	124.31	121.00
1	A	903	G	C8-N9-C1'	-6.62	118.39	127.00
1	A	2807	G	C8-N9-C4	6.62	109.05	106.40
1	A	501	C	O5'-P-OP1	-6.62	99.74	105.70
1	A	624	C	N1-C2-O2	6.62	122.87	118.90
1	A	1179	C	C2-N1-C1'	6.62	126.08	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1933	G	N3-C4-N9	-6.62	122.03	126.00
1	A	2835	C	C6-N1-C2	-6.62	117.65	120.30
1	A	2886	G	N3-C4-N9	6.62	129.97	126.00
1	A	758	G	N7-C8-N9	6.62	116.41	113.10
1	A	1044	A	C6-C5-N7	-6.62	127.67	132.30
1	A	150	A	N3-C4-N9	6.62	132.69	127.40
1	A	925	G	N9-C4-C5	-6.62	102.75	105.40
1	A	1028	G	C5'-C4'-O4'	-6.62	101.16	109.10
1	A	2352	G	C8-N9-C4	-6.62	103.75	106.40
1	A	2457	A	O4'-C1'-N9	6.62	113.49	108.20
1	A	40	U	C2-N1-C1'	6.62	125.64	117.70
2	B	86	A	C2-N3-C4	-6.62	107.29	110.60
1	A	282	A	N7-C8-N9	6.62	117.11	113.80
1	A	421	C	C2-N3-C4	6.62	123.21	119.90
1	A	811	C	N3-C4-C5	6.62	124.55	121.90
1	A	1767	G	C4-N9-C1'	6.62	135.10	126.50
1	A	2368	G	N7-C8-N9	6.62	116.41	113.10
1	A	2758	G	N1-C6-O6	-6.62	115.93	119.90
1	A	1288	G	C4-N9-C1'	6.61	135.10	126.50
1	A	2596	G	N3-C4-N9	-6.61	122.03	126.00
1	A	416	G	C5-C6-N1	-6.61	108.19	111.50
1	A	1414	G	C5-C6-O6	-6.61	124.63	128.60
1	A	1614	A	N1-C2-N3	-6.61	126.00	129.30
1	A	2477	A	C8-N9-C1'	-6.61	115.80	127.70
1	A	35	G	N9-C4-C5	6.61	108.04	105.40
1	A	488	G	C5'-C4'-O4'	-6.61	101.17	109.10
1	A	769	U	N3-C2-O2	-6.61	117.57	122.20
31	a	415	A	C2-N3-C4	6.61	113.90	110.60
1	A	1248	U	N3-C2-O2	6.61	126.83	122.20
1	A	2651	G	C6-N1-C2	-6.61	121.14	125.10
1	A	2834	C	N3-C2-O2	-6.61	117.28	121.90
1	A	2906	G	C8-N9-C1'	-6.61	118.41	127.00
1	A	89	U	N1-C2-O2	6.61	127.42	122.80
1	A	1257	G	N1-C2-N2	-6.61	110.25	116.20
1	A	1809	C	C6-N1-C2	-6.61	117.66	120.30
1	A	2449	C	N3-C2-O2	-6.61	117.28	121.90
1	A	262	G	N7-C8-N9	-6.60	109.80	113.10
1	A	988	C	O4'-C1'-N1	6.60	113.48	108.20
1	A	1237	U	C2-N3-C4	-6.60	123.04	127.00
1	A	1608	C	N1-C2-O2	6.60	122.86	118.90
31	a	1041	C	P-O3'-C3'	6.60	127.62	119.70
1	A	962	A	N9-C4-C5	-6.60	103.16	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2454	C	O3'-P-O5'	6.60	116.55	104.00
1	A	2598	U	C2-N3-C4	-6.60	123.04	127.00
1	A	2659	A	O5'-P-OP1	-6.60	99.76	105.70
1	A	2576	G	N1-C6-O6	-6.60	115.94	119.90
1	A	1015	C	C5-C6-N1	-6.60	117.70	121.00
1	A	1366	U	C5-C4-O4	-6.60	121.94	125.90
1	A	2264	G	N9-C4-C5	-6.60	102.76	105.40
31	a	1155	C	C5-C6-N1	6.60	124.30	121.00
1	A	202	A	C6-N1-C2	6.60	122.56	118.60
1	A	955	A	N7-C8-N9	-6.60	110.50	113.80
1	A	1054	A	OP1-P-O3'	6.60	119.72	105.20
1	A	1254	C	C4-C5-C6	-6.60	114.10	117.40
1	A	667	G	C5'-C4'-C3'	6.60	126.55	116.00
1	A	1400	C	C6-N1-C2	-6.60	117.66	120.30
1	A	2525	C	O5'-C5'-C4'	6.60	124.23	111.70
1	A	803	C	N1-C2-N3	6.59	123.82	119.20
1	A	1067	U	C2-N3-C4	6.59	130.96	127.00
1	A	1362	C	OP1-P-O3'	-6.59	90.69	105.20
1	A	2038	U	C5'-C4'-O4'	6.59	117.01	109.10
1	A	515	G	N1-C2-N3	6.59	127.86	123.90
1	A	1913	U	C6-N1-C1'	-6.59	111.97	121.20
1	A	860	U	C5'-C4'-O4'	6.59	117.01	109.10
1	A	2037	G	N7-C8-N9	6.59	116.40	113.10
1	A	2551	G	N7-C8-N9	6.59	116.40	113.10
1	A	2600	C	N3-C2-O2	-6.59	117.28	121.90
1	A	2675	G	N1-C6-O6	-6.59	115.94	119.90
1	A	572	C	OP1-P-O3'	6.59	119.70	105.20
1	A	1033	G	N9-C1'-C2'	6.59	122.57	114.00
1	A	2287	C	N3-C2-O2	-6.59	117.29	121.90
31	a	387	C	N3-C2-O2	-6.59	117.29	121.90
1	A	1669	C	C4-C5-C6	6.59	120.69	117.40
1	A	2367	A	C5-C6-N1	6.59	120.99	117.70
1	A	113	U	N3-C2-O2	-6.58	117.59	122.20
1	A	812	U	C5-C4-O4	-6.58	121.95	125.90
1	A	1378	U	C5-C4-O4	6.58	129.85	125.90
1	A	2622	G	C4-C5-N7	6.58	113.43	110.80
1	A	2762	G	N9-C4-C5	6.58	108.03	105.40
1	A	826	A	C5-C6-N1	6.58	120.99	117.70
1	A	2530	A	C2-N3-C4	6.58	113.89	110.60
1	A	327	G	C8-N9-C1'	-6.58	118.44	127.00
1	A	572	C	C5-C4-N4	6.58	124.81	120.20
1	A	1184	C	C2-N1-C1'	6.58	126.04	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2527	U	O5'-P-OP2	6.58	118.60	110.70
1	A	393	G	C4-C5-C6	6.58	122.75	118.80
1	A	497	U	OP2-P-O3'	6.58	119.67	105.20
31	a	637	A	C8-N9-C4	-6.58	103.17	105.80
31	a	1339	A	O5'-P-OP1	6.58	118.59	110.70
1	A	302	A	O4'-C1'-N9	6.58	113.46	108.20
1	A	2701	G	C6-N1-C2	-6.58	121.15	125.10
1	A	429	C	N1-C2-O2	6.58	122.84	118.90
1	A	647	G	C8-N9-C4	-6.58	103.77	106.40
1	A	1240	U	N3-C4-O4	-6.58	114.80	119.40
1	A	2365	G	O5'-P-OP1	-6.58	99.78	105.70
1	A	2761	C	C4-C5-C6	6.58	120.69	117.40
1	A	511	G	N1-C6-O6	-6.57	115.96	119.90
1	A	968	A	C6-N1-C2	-6.57	114.66	118.60
31	a	173	U	C2-N1-C1'	6.57	125.59	117.70
1	A	1044	A	C5-C6-N1	6.57	120.98	117.70
1	A	1291	A	N3-C4-C5	6.57	131.40	126.80
1	A	1705	G	C4-N9-C1'	-6.57	117.96	126.50
1	A	2019	G	C8-N9-C1'	6.57	135.54	127.00
1	A	2364	G	C6-C5-N7	-6.57	126.46	130.40
31	a	267	G	C6-C5-N7	-6.57	126.46	130.40
1	A	1355	A	C5-N7-C8	-6.57	100.62	103.90
1	A	2461	A	C4-N9-C1'	6.57	138.12	126.30
1	A	341	G	C6-C5-N7	-6.57	126.46	130.40
1	A	2862	C	C2-N1-C1'	6.57	126.02	118.80
1	A	535	G	P-O3'-C3'	6.57	127.58	119.70
1	A	668	C	O3'-P-O5'	6.57	116.47	104.00
1	A	909	G	C5-C6-N1	6.57	114.78	111.50
1	A	1019	A	C4-C5-C6	6.57	120.28	117.00
1	A	1032	A	N9-C4-C5	-6.57	103.17	105.80
1	A	1617	A	N1-C6-N6	-6.57	114.66	118.60
1	A	2077	C	C2-N3-C4	-6.57	116.62	119.90
1	A	1049	C	OP1-P-OP2	-6.56	109.76	119.60
1	A	2049	U	O4'-C1'-N1	6.56	113.45	108.20
1	A	2709	U	N1-C2-N3	6.56	118.84	114.90
1	A	2903	A	C5-C6-N6	-6.56	118.45	123.70
1	A	644	C	C4'-C3'-C2'	-6.56	96.04	102.60
1	A	692	G	C2-N3-C4	-6.56	108.62	111.90
1	A	1862	G	N1-C6-O6	-6.56	115.97	119.90
31	a	164	C	N3-C2-O2	-6.56	117.31	121.90
1	A	875	G	OP1-P-OP2	-6.56	109.76	119.60
1	A	948	U	C4-C5-C6	6.56	123.63	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1225	G	C4-C5-N7	-6.56	108.18	110.80
1	A	2026	C	C6-N1-C2	6.56	122.92	120.30
1	A	2727	G	C4-C5-N7	6.56	113.42	110.80
31	a	293	C	C6-N1-C2	-6.56	117.68	120.30
1	A	1294	G	C2-N3-C4	6.55	115.18	111.90
1	A	2593	A	C4-C5-N7	-6.55	107.42	110.70
1	A	552	A	N9-C4-C5	-6.55	103.18	105.80
1	A	1378	U	N3-C4-O4	-6.55	114.81	119.40
1	A	1066	G	N9-C4-C5	6.55	108.02	105.40
1	A	1602	U	C2-N1-C1'	6.55	125.56	117.70
1	A	2054	G	N7-C8-N9	6.55	116.37	113.10
1	A	2308	C	N3-C4-C5	6.55	124.52	121.90
1	A	590	U	C2-N1-C1'	-6.55	109.84	117.70
1	A	1024	A	O5'-P-OP2	6.55	118.56	110.70
1	A	1266	G	C5-N7-C8	-6.55	101.03	104.30
1	A	2028	A	C4-C5-N7	6.55	113.97	110.70
1	A	327	G	N3-C4-C5	-6.54	125.33	128.60
1	A	1506	C	N1-C2-N3	6.54	123.78	119.20
1	A	2600	C	N1-C2-O2	6.54	122.83	118.90
1	A	25	U	N3-C4-O4	-6.54	114.82	119.40
1	A	422	G	C5-N7-C8	-6.54	101.03	104.30
1	A	474	A	C2-N3-C4	6.54	113.87	110.60
1	A	1201	G	C4-C5-C6	6.54	122.72	118.80
1	A	2550	G	C5'-C4'-O4'	6.54	116.95	109.10
1	A	2657	G	N3-C4-C5	-6.54	125.33	128.60
31	a	530	C	N3-C2-O2	-6.54	117.32	121.90
1	A	194	A	C8-N9-C1'	6.54	139.47	127.70
1	A	376	A	N3-C4-C5	-6.54	122.22	126.80
1	A	590	U	N1-C2-N3	-6.54	110.98	114.90
1	A	1617	A	C8-N9-C4	-6.54	103.18	105.80
1	A	2277	G	C8-N9-C1'	-6.54	118.50	127.00
31	a	1318	U	C2-N1-C1'	6.54	125.55	117.70
1	A	443	U	N1-C2-N3	6.54	118.82	114.90
1	A	634	C	C4-C5-C6	6.54	120.67	117.40
1	A	2472	G	O4'-C1'-N9	6.54	113.43	108.20
1	A	2543	G	P-O5'-C5'	6.54	131.36	120.90
1	A	1249	U	C5-C6-N1	6.54	125.97	122.70
1	A	200	A	OP2-P-O3'	-6.54	90.82	105.20
1	A	656	G	C4-C5-N7	6.53	113.41	110.80
1	A	2497	G	N3-C4-N9	6.53	129.92	126.00
31	a	1261	A	C8-N9-C4	-6.53	103.19	105.80
1	A	239	C	C5-C6-N1	6.53	124.27	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	264	G	C8-N9-C4	-6.53	103.79	106.40
1	A	665	G	C8-N9-C1'	-6.53	118.51	127.00
1	A	1695	G	N9-C4-C5	6.53	108.01	105.40
1	A	2424	G	N9-C4-C5	6.53	108.01	105.40
31	a	746	U	OP1-P-OP2	6.53	129.40	119.60
1	A	439	U	N1-C2-O2	6.53	127.37	122.80
1	A	1276	G	O5'-P-OP2	-6.53	99.82	105.70
1	A	517	A	C4-C5-C6	-6.53	113.74	117.00
1	A	2654	G	N1-C6-O6	-6.53	115.98	119.90
31	a	1439	C	C5-C6-N1	6.53	124.26	121.00
1	A	574	A	O4'-C1'-N9	6.53	113.42	108.20
1	A	1181	G	C5-C6-N1	6.53	114.76	111.50
1	A	2044	C	C2-N3-C4	6.53	123.16	119.90
1	A	2071	C	N1-C2-O2	6.53	122.81	118.90
1	A	2319	U	N3-C4-O4	6.53	123.97	119.40
1	A	2894	C	O3'-P-O5'	6.53	116.40	104.00
1	A	229	A	N7-C8-N9	6.52	117.06	113.80
1	A	1231	A	C2-N3-C4	6.52	113.86	110.60
1	A	351	G	N7-C8-N9	6.52	116.36	113.10
1	A	721	A	N1-C6-N6	6.52	122.51	118.60
1	A	1092	A	N3-C4-N9	6.52	132.62	127.40
1	A	2064	A	P-O5'-C5'	6.52	131.34	120.90
1	A	2460	A	C8-N9-C1'	-6.52	115.96	127.70
1	A	403	U	P-O3'-C3'	6.52	127.52	119.70
1	A	902	A	C5-C6-N1	6.52	120.96	117.70
1	A	1333	A	C5-C6-N1	6.52	120.96	117.70
1	A	2456	G	N3-C2-N2	-6.52	115.34	119.90
1	A	2866	G	N3-C4-N9	6.52	129.91	126.00
31	a	945	C	C5-C6-N1	6.52	124.26	121.00
1	A	152	C	C5-C4-N4	-6.52	115.64	120.20
1	A	302	A	C5-C6-N6	-6.52	118.49	123.70
1	A	649	U	N3-C4-O4	6.52	123.96	119.40
1	A	2037	G	N3-C2-N2	6.52	124.46	119.90
1	A	1772	G	C5-C6-N1	6.52	114.76	111.50
1	A	27	G	P-O3'-C3'	6.51	127.52	119.70
1	A	299	U	P-O3'-C3'	6.51	127.52	119.70
1	A	340	C	N3-C2-O2	-6.51	117.34	121.90
1	A	366	G	C4-C5-C6	6.51	122.71	118.80
1	A	1756	U	N3-C2-O2	-6.51	117.64	122.20
1	A	2648	G	N1-C6-O6	-6.51	115.99	119.90
31	a	298	C	C5-C6-N1	6.51	124.26	121.00
1	A	306	C	C2-N1-C1'	6.51	125.96	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	490	C	OP2-P-O3'	6.51	119.52	105.20
1	A	2037	G	C4-C5-C6	6.51	122.70	118.80
1	A	577	A	C5-C6-N1	6.51	120.95	117.70
1	A	640	G	OP1-P-OP2	-6.51	109.84	119.60
1	A	1029	C	C6-N1-C2	-6.51	117.70	120.30
1	A	1183	G	N3-C4-C5	-6.51	125.35	128.60
1	A	1226	G	C2-N3-C4	6.51	115.15	111.90
1	A	1781	C	C6-N1-C2	-6.51	117.70	120.30
1	A	2077	C	C5-C6-N1	-6.51	117.75	121.00
31	a	1187	G	C4-N9-C1'	6.51	134.96	126.50
1	A	236	A	N7-C8-N9	6.50	117.05	113.80
1	A	445	G	C4-C5-N7	-6.50	108.20	110.80
1	A	1228	A	C5-C6-N1	-6.50	114.45	117.70
1	A	2377	C	N3-C2-O2	-6.50	117.35	121.90
31	a	945	C	C2-N1-C1'	6.50	125.96	118.80
1	A	338	G	C6-C5-N7	-6.50	126.50	130.40
1	A	646	A	N1-C6-N6	-6.50	114.70	118.60
1	A	2064	A	N1-C2-N3	6.50	132.55	129.30
31	a	1325	U	C2-N1-C1'	6.50	125.50	117.70
1	A	822	G	N3-C4-C5	-6.50	125.35	128.60
1	A	1080	G	O5'-P-OP2	-6.50	99.85	105.70
1	A	2088	G	O5'-P-OP1	-6.50	99.85	105.70
1	A	2561	C	N3-C2-O2	-6.50	117.35	121.90
31	a	1314	G	P-O3'-C3'	6.50	127.50	119.70
1	A	2552	G	O5'-P-OP2	-6.50	99.85	105.70
1	A	555	C	C5'-C4'-O4'	6.50	116.90	109.10
1	A	2614	A	N1-C2-N3	-6.50	126.05	129.30
1	A	476	A	N3-C4-C5	-6.50	122.25	126.80
1	A	1506	C	C2-N3-C4	-6.50	116.65	119.90
1	A	1695	G	N3-C2-N2	-6.50	115.35	119.90
1	A	2887	G	N9-C1'-C2'	6.50	122.44	114.00
1	A	1164	G	C5-N7-C8	6.49	107.55	104.30
1	A	201	C	N1-C1'-C2'	6.49	122.44	114.00
1	A	2074	C	N1-C2-O2	6.49	122.80	118.90
31	a	548	G	N7-C8-N9	6.49	116.35	113.10
1	A	863	G	C8-N9-C4	6.49	109.00	106.40
1	A	1013	U	C2-N3-C4	6.49	130.89	127.00
1	A	2053	U	N3-C2-O2	6.49	126.74	122.20
1	A	2473	G	C5-C6-N1	-6.49	108.26	111.50
1	A	38	A	C4-C5-N7	6.49	113.94	110.70
1	A	88	G	C8-N9-C1'	-6.49	118.57	127.00
1	A	2740	A	N3-C4-N9	-6.49	122.21	127.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	600	U	C4-C5-C6	6.48	123.59	119.70
1	A	46	C	C4-C5-C6	-6.48	114.16	117.40
1	A	220	A	C8-N9-C4	-6.48	103.21	105.80
1	A	495	A	P-O3'-C3'	-6.48	111.92	119.70
1	A	1286	G	C6-N1-C2	-6.48	121.21	125.10
1	A	2076	A	C5-C6-N1	6.48	120.94	117.70
1	A	2546	U	O5'-P-OP1	-6.48	99.86	105.70
1	A	2693	C	N3-C2-O2	-6.48	117.36	121.90
1	A	1046	G	C5-C6-N1	-6.48	108.26	111.50
1	A	2576	G	N3-C4-C5	-6.48	125.36	128.60
1	A	2840	A	N1-C6-N6	6.48	122.49	118.60
1	A	660	A	N1-C2-N3	6.48	132.54	129.30
1	A	669	C	N1-C2-O2	6.48	122.79	118.90
1	A	990	G	N7-C8-N9	6.48	116.34	113.10
1	A	1065	A	N1-C6-N6	6.48	122.49	118.60
1	A	1265	G	C2-N3-C4	-6.48	108.66	111.90
1	A	1731	G	C5-C6-N1	6.48	114.74	111.50
1	A	2319	U	O4'-C1'-N1	6.48	113.38	108.20
31	a	1277	C	N3-C2-O2	-6.48	117.36	121.90
1	A	2374	C	C6-N1-C2	-6.48	117.71	120.30
1	A	1356	G	C8-N9-C1'	-6.47	118.58	127.00
1	A	1767	G	C8-N9-C1'	-6.47	118.58	127.00
1	A	1772	G	N3-C4-N9	6.47	129.88	126.00
1	A	2046	U	C5-C6-N1	6.47	125.94	122.70
1	A	2346	U	O4'-C1'-N1	6.47	113.38	108.20
1	A	2826	U	C5-C6-N1	6.47	125.94	122.70
1	A	86	C	N3-C4-C5	6.47	124.49	121.90
1	A	193	A	N9-C4-C5	-6.47	103.21	105.80
1	A	366	G	N3-C4-C5	6.47	131.84	128.60
1	A	545	G	C2-N3-C4	-6.47	108.67	111.90
1	A	575	G	N1-C2-N2	-6.47	110.38	116.20
1	A	1006	G	C6-C5-N7	-6.47	126.52	130.40
1	A	1284	A	C5-C6-N1	6.47	120.93	117.70
1	A	1352	C	N3-C4-C5	6.47	124.49	121.90
1	A	1736	U	N1-C2-O2	6.47	127.33	122.80
1	A	242	U	C5-C6-N1	6.47	125.93	122.70
1	A	828	A	C4-N9-C1'	6.47	137.94	126.30
1	A	1597	U	C2-N1-C1'	6.47	125.46	117.70
1	A	2058	A	C4-C5-C6	6.47	120.23	117.00
1	A	2273	G	C6-N1-C2	-6.47	121.22	125.10
1	A	13	A	N3-C4-N9	6.46	132.57	127.40
1	A	17	G	N1-C2-N3	-6.46	120.02	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	713	A	C6-N1-C2	-6.46	114.72	118.60
1	A	1252	A	C4-N9-C1'	6.46	137.94	126.30
1	A	2032	A	N3-C4-C5	6.46	131.32	126.80
1	A	2319	U	C2-N1-C1'	6.46	125.46	117.70
1	A	1526	G	N3-C4-N9	6.46	129.88	126.00
1	A	2481	G	C5'-C4'-O4'	6.46	116.86	109.10
1	A	650	U	O5'-P-OP1	6.46	118.45	110.70
1	A	2314	A	C4-C5-N7	6.46	113.93	110.70
1	A	2750	C	C6-N1-C2	-6.46	117.72	120.30
1	A	2857	A	N1-C6-N6	6.46	122.48	118.60
31	a	188	U	N3-C2-O2	-6.46	117.68	122.20
2	B	80	G	N3-C4-C5	-6.46	125.37	128.60
1	A	419	U	N1-C1'-C2'	6.46	122.40	114.00
1	A	1239	C	N1-C2-O2	-6.46	115.03	118.90
1	A	1510	U	C2-N1-C1'	6.46	125.45	117.70
1	A	458	A	C4-C5-N7	6.46	113.93	110.70
1	A	912	C	C2-N1-C1'	6.46	125.90	118.80
1	A	522	G	P-O3'-C3'	6.46	127.45	119.70
1	A	865	A	OP1-P-OP2	-6.46	109.92	119.60
31	a	451	U	O4'-C1'-N1	6.46	113.36	108.20
1	A	24	G	C5-C6-O6	6.45	132.47	128.60
1	A	85	G	C4-N9-C1'	-6.45	118.11	126.50
1	A	635	G	C5-C6-O6	6.45	132.47	128.60
1	A	2583	C	C6-N1-C1'	-6.45	113.06	120.80
1	A	781	C	C5-C6-N1	6.45	124.23	121.00
1	A	2383	C	N3-C2-O2	-6.45	117.38	121.90
31	a	688	C	C6-N1-C2	-6.45	117.72	120.30
1	A	27	G	C4-C5-C6	6.45	122.67	118.80
1	A	483	C	O4'-C1'-N1	6.45	113.36	108.20
1	A	569	U	O5'-P-OP1	-6.45	99.89	105.70
1	A	646	A	O4'-C1'-N9	-6.45	103.04	108.20
1	A	575	G	N3-C2-N2	6.45	124.41	119.90
1	A	1053	A	P-O3'-C3'	6.45	127.44	119.70
1	A	1173	A	O4'-C1'-N9	6.45	113.36	108.20
1	A	2856	U	C4'-C3'-O3'	6.45	125.89	113.00
1	A	2908	U	N3-C2-O2	-6.45	117.69	122.20
31	a	1428	A	C4-C5-C6	-6.45	113.78	117.00
1	A	374	U	C6-N1-C2	-6.45	117.13	121.00
1	A	533	C	C2-N3-C4	6.45	123.12	119.90
1	A	1050	C	C2'-C3'-O3'	6.45	124.01	113.70
1	A	2716	U	N3-C4-O4	-6.45	114.89	119.40
2	B	76	A	C5-N7-C8	-6.45	100.68	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1169	G	N3-C4-N9	-6.44	122.13	126.00
1	A	1229	G	OP2-P-O3'	6.44	119.37	105.20
1	A	2514	G	N9-C4-C5	6.44	107.98	105.40
1	A	89	U	O4'-C1'-N1	6.44	113.35	108.20
1	A	1932	C	N1-C2-O2	6.44	122.76	118.90
1	A	2036	G	N1-C2-N2	-6.44	110.40	116.20
2	B	75	U	C2-N1-C1'	6.44	125.43	117.70
1	A	352	A	N1-C2-N3	-6.44	126.08	129.30
1	A	1175	G	N1-C2-N3	6.44	127.76	123.90
1	A	2082	C	N1-C2-O2	-6.44	115.04	118.90
1	A	202	A	N1-C6-N6	-6.44	114.74	118.60
1	A	850	G	N3-C2-N2	-6.44	115.39	119.90
1	A	851	C	N1-C2-O2	6.44	122.76	118.90
1	A	2663	U	O5'-P-OP1	6.44	118.42	110.70
31	a	405	A	N3-C4-N9	6.44	132.55	127.40
1	A	2373	A	N3-C4-N9	6.44	132.55	127.40
1	A	44	A	C4-C5-N7	6.43	113.92	110.70
1	A	558	A	C5-N7-C8	6.43	107.12	103.90
1	A	1322	G	C4-N9-C1'	6.43	134.87	126.50
1	A	1533	A	N3-C4-N9	6.43	132.55	127.40
1	A	2543	G	C5'-C4'-C3'	6.43	126.30	116.00
1	A	557	G	C1'-O4'-C4'	-6.43	104.75	109.90
1	A	1693	G	C4-C5-N7	6.43	113.37	110.80
1	A	2081	A	C8-N9-C4	-6.43	103.23	105.80
1	A	2288	C	N1-C2-N3	6.43	123.70	119.20
1	A	46	C	OP1-P-OP2	-6.43	109.95	119.60
1	A	246	U	C4-C5-C6	-6.43	115.84	119.70
1	A	616	G	OP1-P-OP2	-6.43	109.95	119.60
1	A	1261	G	C2-N3-C4	6.43	115.12	111.90
1	A	1651	C	N1-C2-O2	6.43	122.76	118.90
1	A	860	U	C6-N1-C1'	-6.43	112.20	121.20
1	A	1651	C	N3-C4-N4	-6.43	113.50	118.00
1	A	2449	C	N3-C4-C5	6.43	124.47	121.90
1	A	211	C	N3-C4-C5	-6.43	119.33	121.90
1	A	1429	G	N1-C2-N3	6.43	127.76	123.90
1	A	2537	C	N3-C2-O2	-6.43	117.40	121.90
1	A	620	G	N3-C4-C5	6.42	131.81	128.60
31	a	524	U	C2-N1-C1'	6.42	125.41	117.70
1	A	491	C	C5-C6-N1	-6.42	117.79	121.00
1	A	1055	A	C5-C6-N6	-6.42	118.56	123.70
1	A	2390	U	C2-N1-C1'	6.42	125.41	117.70
1	A	1061	G	C5-C6-N1	6.42	114.71	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2427	G	N3-C2-N2	6.42	124.39	119.90
1	A	2902	A	C6-N1-C2	-6.42	114.75	118.60
1	A	2916	U	C6-N1-C1'	6.42	130.19	121.20
1	A	117	A	O5'-P-OP2	6.42	118.40	110.70
1	A	263	G	C4-N9-C1'	6.42	134.85	126.50
1	A	660	A	C4-C5-N7	6.42	113.91	110.70
1	A	2377	C	N3-C4-N4	-6.42	113.51	118.00
1	A	1363	U	N3-C4-C5	6.42	118.45	114.60
1	A	1795	A	C5-C6-N1	6.42	120.91	117.70
31	a	866	U	N3-C2-O2	-6.42	117.71	122.20
1	A	850	G	N1-C2-N3	6.42	127.75	123.90
1	A	1272	U	C6-N1-C2	-6.42	117.15	121.00
1	A	500	A	C3'-C2'-C1'	6.42	106.63	101.50
1	A	573	A	N1-C6-N6	-6.42	114.75	118.60
1	A	46	C	C5-C4-N4	-6.41	115.71	120.20
1	A	1275	A	C5-C6-N1	6.41	120.91	117.70
1	A	1683	U	C2-N3-C4	-6.41	123.15	127.00
1	A	2549	U	P-O3'-C3'	6.41	127.40	119.70
1	A	27	G	N9-C1'-C2'	6.41	122.34	114.00
1	A	364	A	O4'-C1'-N9	-6.41	103.07	108.20
1	A	1322	G	O5'-P-OP1	-6.41	99.93	105.70
1	A	150	A	C5-N7-C8	6.41	107.11	103.90
1	A	360	A	C2-N3-C4	6.41	113.81	110.60
1	A	630	G	C5-C6-O6	6.41	132.45	128.60
1	A	954	A	C5-N7-C8	-6.41	100.69	103.90
1	A	2075	G	N3-C4-N9	6.41	129.84	126.00
1	A	2654	G	N3-C4-N9	6.41	129.84	126.00
1	A	27	G	C6-C5-N7	6.41	134.24	130.40
1	A	2284	U	N3-C4-O4	-6.41	114.92	119.40
1	A	2678	C	N3-C2-O2	-6.41	117.42	121.90
31	a	637	A	C4-N9-C1'	6.41	137.83	126.30
1	A	850	G	C5-C6-N1	6.41	114.70	111.50
31	a	311	G	C4-C5-N7	6.41	113.36	110.80
1	A	238	U	C6-N1-C2	-6.40	117.16	121.00
1	A	555	C	C4-C5-C6	6.40	120.60	117.40
1	A	563	G	C5-N7-C8	6.40	107.50	104.30
1	A	1841	G	N1-C6-O6	-6.40	116.06	119.90
1	A	2903	A	N3-C4-C5	6.40	131.28	126.80
1	A	498	G	N3-C2-N2	6.40	124.38	119.90
1	A	872	U	N1-C2-N3	6.40	118.74	114.90
1	A	901	G	N1-C6-O6	-6.40	116.06	119.90
1	A	1975	G	N1-C6-O6	-6.40	116.06	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2472	G	O5'-P-OP1	-6.40	99.94	105.70
1	A	446	G	N1-C6-O6	6.40	123.74	119.90
1	A	2094	G	N1-C2-N3	6.40	127.74	123.90
1	A	2352	G	N1-C2-N3	6.40	127.74	123.90
31	a	1452	G	C4-N9-C1'	6.40	134.82	126.50
1	A	90	A	C5-C6-N6	-6.40	118.58	123.70
1	A	1187	A	O3'-P-O5'	6.40	116.16	104.00
1	A	1816	A	C2-N3-C4	-6.40	107.40	110.60
1	A	2364	G	N9-C4-C5	-6.40	102.84	105.40
1	A	193	A	N3-C4-N9	6.40	132.52	127.40
1	A	493	A	N1-C6-N6	6.40	122.44	118.60
1	A	213	C	C6-N1-C2	-6.39	117.74	120.30
1	A	2529	G	C5-C6-N1	6.39	114.70	111.50
31	a	989	C	N1-C2-O2	6.39	122.74	118.90
1	A	26	G	N3-C4-C5	-6.39	125.40	128.60
1	A	867	U	C6-N1-C1'	6.39	130.15	121.20
1	A	1919	C	N3-C2-O2	-6.39	117.42	121.90
1	A	1226	G	N1-C2-N3	6.39	127.73	123.90
1	A	1473	G	C8-N9-C1'	-6.39	118.69	127.00
1	A	862	C	N1-C2-O2	6.39	122.73	118.90
1	A	1305	U	C2-N1-C1'	6.39	125.37	117.70
1	A	2798	C	C2-N1-C1'	6.39	125.83	118.80
1	A	2037	G	C6-C5-N7	-6.39	126.57	130.40
1	A	2094	G	C2-N3-C4	6.39	115.09	111.90
1	A	2295	A	N7-C8-N9	6.39	116.99	113.80
1	A	2727	G	N3-C4-N9	6.39	129.83	126.00
1	A	2852	U	N3-C4-O4	-6.39	114.93	119.40
1	A	815	G	C6-C5-N7	6.39	134.23	130.40
1	A	1263	A	C5-N7-C8	-6.39	100.71	103.90
1	A	2070	C	C6-N1-C2	-6.39	117.75	120.30
1	A	2368	G	C5-C6-O6	6.39	132.43	128.60
1	A	2477	A	N7-C8-N9	6.39	116.99	113.80
1	A	195	C	N3-C2-O2	-6.38	117.43	121.90
1	A	350	G	C5-C6-N1	6.38	114.69	111.50
1	A	462	U	C5-C6-N1	6.38	125.89	122.70
1	A	590	U	O5'-P-OP1	-6.38	99.95	105.70
1	A	639	U	C5-C6-N1	6.38	125.89	122.70
1	A	2056	G	OP1-P-OP2	-6.38	110.03	119.60
1	A	2639	C	C2-N1-C1'	-6.38	111.78	118.80
1	A	182	C	OP1-P-OP2	6.38	129.17	119.60
1	A	238	U	C5-C6-N1	6.38	125.89	122.70
1	A	620	G	N1-C2-N3	-6.38	120.07	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	963	A	C6-C5-N7	-6.38	127.83	132.30
1	A	2427	G	C4-C5-N7	6.38	113.35	110.80
1	A	2701	G	C8-N9-C1'	6.38	135.30	127.00
1	A	2479	C	C2-N3-C4	-6.38	116.71	119.90
1	A	207	A	N1-C6-N6	-6.38	114.77	118.60
1	A	718	C	N1-C2-N3	6.38	123.67	119.20
1	A	1375	G	C4-C5-N7	6.38	113.35	110.80
1	A	1222	A	C5-C6-N1	6.38	120.89	117.70
31	a	1187	G	N3-C4-C5	-6.38	125.41	128.60
1	A	366	G	N3-C4-N9	-6.38	122.17	126.00
1	A	809	A	O4'-C1'-N9	6.38	113.30	108.20
1	A	1487	G	C4-N9-C1'	-6.38	118.21	126.50
1	A	2597	G	N1-C2-N2	6.38	121.94	116.20
1	A	1042	C	O4'-C1'-N1	6.38	113.30	108.20
1	A	524	A	N1-C6-N6	-6.37	114.78	118.60
1	A	894	A	C8-N9-C1'	-6.37	116.23	127.70
1	A	2349	A	N1-C6-N6	-6.37	114.78	118.60
1	A	2857	A	C6-C5-N7	-6.37	127.84	132.30
2	B	75	U	N3-C2-O2	-6.37	117.74	122.20
1	A	377	U	C5-C4-O4	6.37	129.72	125.90
1	A	2886	G	C8-N9-C1'	-6.37	118.72	127.00
1	A	587	C	C5-C6-N1	-6.37	117.81	121.00
31	a	528	A	N7-C8-N9	6.37	116.98	113.80
1	A	8	U	C2-N1-C1'	-6.37	110.06	117.70
1	A	420	A	O4'-C1'-N9	6.37	113.29	108.20
1	A	587	C	N3-C4-C5	6.37	124.45	121.90
1	A	1069	G	C2-N3-C4	-6.37	108.72	111.90
1	A	2024	A	C4'-C3'-O3'	6.37	125.74	113.00
1	A	2064	A	N1-C6-N6	-6.37	114.78	118.60
1	A	2460	A	C4-N9-C1'	6.37	137.76	126.30
1	A	104	C	N1-C2-O2	6.37	122.72	118.90
1	A	2852	U	C5-C4-O4	6.37	129.72	125.90
1	A	15	G	N3-C4-N9	6.37	129.82	126.00
1	A	628	G	O5'-P-OP2	-6.37	99.97	105.70
1	A	1005	G	C4-N9-C1'	6.37	134.78	126.50
31	a	216	G	C6-C5-N7	-6.37	126.58	130.40
1	A	383	A	C4-C5-C6	-6.36	113.82	117.00
1	A	1290	G	N7-C8-N9	6.36	116.28	113.10
1	A	2057	A	C4-N9-C1'	6.36	137.76	126.30
1	A	2554	C	C6-N1-C2	-6.36	117.75	120.30
1	A	234	C	C6-N1-C2	-6.36	117.75	120.30
1	A	426	G	N7-C8-N9	6.36	116.28	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1196	C	N1-C1'-C2'	6.36	122.27	114.00
1	A	625	G	C8-N9-C1'	6.36	135.27	127.00
1	A	2664	U	C5-C4-O4	6.36	129.72	125.90
1	A	557	G	P-O5'-C5'	6.36	131.07	120.90
2	B	86	A	N7-C8-N9	6.36	116.98	113.80
1	A	646	A	N3-C4-N9	-6.36	122.31	127.40
1	A	1011	U	C2-N1-C1'	6.36	125.33	117.70
1	A	217	G	N1-C6-O6	-6.36	116.09	119.90
1	A	262	G	O4'-C1'-N9	6.36	113.28	108.20
1	A	1256	U	C6-N1-C2	-6.36	117.19	121.00
1	A	2663	U	O3'-P-O5'	6.36	116.08	104.00
1	A	899	U	N3-C2-O2	-6.35	117.75	122.20
1	A	903	G	C5-N7-C8	6.35	107.48	104.30
1	A	948	U	C5-C6-N1	6.35	125.88	122.70
1	A	1275	A	N9-C4-C5	6.35	108.34	105.80
1	A	1394	U	C6-N1-C2	-6.35	117.19	121.00
1	A	1487	G	C6-C5-N7	6.35	134.21	130.40
1	A	2458	U	C2-N3-C4	-6.35	123.19	127.00
1	A	2524	A	C5-C6-N1	6.35	120.88	117.70
31	a	298	C	C6-N1-C2	-6.35	117.76	120.30
1	A	1263	A	N9-C4-C5	-6.35	103.26	105.80
1	A	1951	C	C2-N1-C1'	-6.35	111.81	118.80
1	A	669	C	C2-N1-C1'	6.35	125.78	118.80
1	A	889	U	C4-C5-C6	-6.35	115.89	119.70
1	A	1804	U	N1-C2-N3	6.35	118.71	114.90
1	A	1951	C	C6-N1-C1'	6.35	128.42	120.80
1	A	2432	G	O4'-C1'-N9	6.35	113.28	108.20
1	A	2733	A	C5-C6-N6	-6.35	118.62	123.70
4	D	138	ARG	NE-CZ-NH1	6.35	123.47	120.30
1	A	1013	U	C2'-C3'-O3'	6.34	123.85	113.70
1	A	2008	A	C4-C5-C6	-6.34	113.83	117.00
1	A	2445	A	C2-N3-C4	6.34	113.77	110.60
1	A	275	A	C4-C5-C6	-6.34	113.83	117.00
1	A	2273	G	C8-N9-C1'	-6.34	118.75	127.00
1	A	45	G	N1-C6-O6	6.34	123.70	119.90
1	A	477	U	N3-C2-O2	-6.34	117.76	122.20
1	A	2478	A	O4'-C1'-N9	6.34	113.27	108.20
1	A	1180	G	C6-N1-C2	-6.34	121.30	125.10
1	A	1230	G	N1-C2-N2	-6.34	110.49	116.20
1	A	1300	G	C4-C5-C6	-6.34	115.00	118.80
1	A	2807	G	N3-C4-C5	6.34	131.77	128.60
1	A	575	G	N3-C4-N9	6.34	129.80	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	863	G	N7-C8-N9	6.34	116.27	113.10
1	A	1268	C	O4'-C1'-N1	-6.34	103.13	108.20
1	A	484	U	N1-C2-N3	6.34	118.70	114.90
1	A	251	G	N1-C2-N3	6.33	127.70	123.90
1	A	521	U	N3-C4-C5	6.33	118.40	114.60
1	A	564	U	O4'-C1'-N1	6.33	113.27	108.20
1	A	1274	G	C5'-C4'-O4'	6.33	116.70	109.10
1	A	1281	U	N3-C2-O2	-6.33	117.77	122.20
31	a	302	C	C6-N1-C2	-6.33	117.77	120.30
1	A	306	C	N3-C2-O2	-6.33	117.47	121.90
1	A	410	G	N1-C6-O6	6.33	123.70	119.90
1	A	859	C	C2-N3-C4	-6.33	116.73	119.90
1	A	2433	C	O4'-C1'-N1	6.33	113.27	108.20
1	A	2657	G	N9-C4-C5	6.33	107.93	105.40
31	a	1186	A	C2-N3-C4	6.33	113.77	110.60
1	A	2642	U	C2-N3-C4	-6.33	123.20	127.00
1	A	2703	C	C2-N3-C4	-6.33	116.73	119.90
31	a	303	C	C5-C6-N1	6.33	124.16	121.00
1	A	1061	G	C5-C6-O6	6.33	132.40	128.60
1	A	1256	U	C3'-C2'-C1'	-6.33	96.44	101.50
1	A	1591	G	N3-C4-C5	-6.33	125.44	128.60
1	A	2296	A	N1-C6-N6	-6.33	114.80	118.60
1	A	629	A	N3-C4-C5	6.33	131.23	126.80
1	A	642	U	N3-C4-C5	6.33	118.39	114.60
1	A	2520	U	O5'-P-OP2	-6.33	100.01	105.70
1	A	1302	G	N1-C2-N3	-6.32	120.11	123.90
1	A	2264	G	C6-C5-N7	-6.32	126.61	130.40
1	A	2420	U	O5'-P-OP2	-6.32	100.01	105.70
1	A	2653	C	C5-C4-N4	6.32	124.63	120.20
1	A	1022	G	N3-C4-C5	-6.32	125.44	128.60
1	A	341	G	C2-N3-C4	6.32	115.06	111.90
1	A	341	G	C3'-C2'-C1'	-6.32	96.44	101.50
1	A	491	C	C6-N1-C2	6.32	122.83	120.30
1	A	1253	G	C6-N1-C2	-6.32	121.31	125.10
1	A	2665	G	N1-C2-N2	6.32	121.89	116.20
1	A	597	U	C6-N1-C2	-6.32	117.21	121.00
1	A	870	C	C5-C6-N1	6.32	124.16	121.00
1	A	1233	A	C6-C5-N7	-6.32	127.88	132.30
31	a	1392	C	C2-N1-C1'	6.32	125.75	118.80
1	A	2023	C	C3'-C2'-C1'	-6.32	96.45	101.50
1	A	2046	U	N3-C2-O2	-6.32	117.78	122.20
1	A	2063	C	P-O3'-C3'	6.32	127.28	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	627	C	O5'-P-OP1	-6.31	100.02	105.70
1	A	2054	G	O5'-P-OP1	6.31	118.28	110.70
1	A	2313	A	C4-N9-C1'	-6.31	114.94	126.30
1	A	90	A	C6-N1-C2	-6.31	114.81	118.60
1	A	615	A	O5'-P-OP2	-6.31	100.02	105.70
1	A	1297	G	C8-N9-C4	-6.31	103.88	106.40
31	a	497	C	C5-C6-N1	6.31	124.16	121.00
31	a	601	U	N1-C2-O2	6.31	127.22	122.80
1	A	774	G	C8-N9-C1'	-6.31	118.80	127.00
1	A	2043	U	C6-N1-C1'	6.31	130.04	121.20
1	A	2470	C	C4-C5-C6	-6.31	114.24	117.40
1	A	2482	G	N1-C2-N2	-6.31	110.52	116.20
1	A	2903	A	N1-C6-N6	6.31	122.39	118.60
31	a	477	U	N3-C2-O2	-6.31	117.78	122.20
1	A	376	A	P-O3'-C3'	6.31	127.27	119.70
1	A	470	G	O5'-P-OP2	-6.31	100.02	105.70
1	A	1324	A	N9-C4-C5	-6.31	103.28	105.80
1	A	1387	C	N3-C2-O2	-6.31	117.48	121.90
1	A	2855	A	N3-C4-C5	6.31	131.22	126.80
1	A	218	G	N1-C6-O6	-6.31	116.12	119.90
1	A	1198	G	P-O3'-C3'	6.31	127.27	119.70
1	A	1435	C	C2-N1-C1'	6.31	125.74	118.80
1	A	157	U	C5-C4-O4	-6.31	122.12	125.90
1	A	460	C	C5-C6-N1	6.31	124.15	121.00
31	a	99	U	C5-C4-O4	6.31	129.68	125.90
1	A	261	U	C6-N1-C2	-6.30	117.22	121.00
1	A	503	A	C4-N9-C1'	6.30	137.65	126.30
1	A	581	A	N9-C4-C5	-6.30	103.28	105.80
1	A	640	G	O5'-C5'-C4'	6.30	123.68	111.70
1	A	1054	A	OP1-P-OP2	-6.30	110.14	119.60
1	A	2481	G	O4'-C1'-N9	6.30	113.24	108.20
1	A	2573	U	C2-N3-C4	-6.30	123.22	127.00
1	A	2811	U	C5'-C4'-O4'	-6.30	101.53	109.10
2	B	113	G	C4-C5-N7	6.30	113.32	110.80
31	a	660	U	C5-C6-N1	6.30	125.85	122.70
1	A	262	G	C5'-C4'-C3'	6.30	126.08	116.00
1	A	1294	G	C4-N9-C1'	6.30	134.69	126.50
1	A	1324	A	OP2-P-O3'	6.30	119.07	105.20
1	A	865	A	C5'-C4'-O4'	6.30	116.66	109.10
1	A	1301	U	C6-N1-C2	-6.30	117.22	121.00
1	A	2270	U	N3-C2-O2	-6.30	117.79	122.20
2	B	24	C	C5-C6-N1	6.30	124.15	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	a	1107	C	C2-N1-C1'	6.30	125.73	118.80
1	A	803	C	C2-N3-C4	-6.30	116.75	119.90
1	A	2304	G	C6-N1-C2	-6.30	121.32	125.10
1	A	2518	U	N3-C4-O4	6.30	123.81	119.40
1	A	181	G	N3-C4-C5	-6.30	125.45	128.60
1	A	504	G	C5-C6-N1	6.30	114.65	111.50
1	A	710	C	C6-N1-C2	-6.30	117.78	120.30
1	A	963	A	C8-N9-C4	-6.30	103.28	105.80
1	A	1726	A	C2-N3-C4	6.30	113.75	110.60
1	A	209	U	N3-C2-O2	-6.30	117.79	122.20
1	A	723	C	N3-C4-C5	6.29	124.42	121.90
1	A	1064	A	C4-C5-C6	-6.29	113.85	117.00
1	A	895	U	O5'-P-OP1	6.29	118.25	110.70
1	A	2065	G	N1-C2-N2	-6.29	110.54	116.20
1	A	2273	G	C6-C5-N7	-6.29	126.62	130.40
31	a	1098	G	C4-C5-N7	6.29	113.32	110.80
1	A	248	G	C6-C5-N7	-6.29	126.62	130.40
1	A	601	G	N7-C8-N9	6.29	116.25	113.10
1	A	1185	U	C2-N1-C1'	6.29	125.25	117.70
1	A	2802	A	C5'-C4'-O4'	6.29	116.65	109.10
31	a	312	U	N1-C2-O2	6.29	127.20	122.80
1	A	547	A	N3-C4-N9	6.29	132.43	127.40
1	A	1262	U	C2-N1-C1'	-6.29	110.15	117.70
1	A	1695	G	N1-C2-N3	6.29	127.67	123.90
1	A	1167	C	N3-C2-O2	-6.29	117.50	121.90
1	A	2427	G	C8-N9-C4	-6.29	103.89	106.40
1	A	227	G	O4'-C1'-N9	6.29	113.23	108.20
1	A	964	U	C4-C5-C6	6.29	123.47	119.70
1	A	2915	C	N3-C2-O2	-6.29	117.50	121.90
1	A	920	A	N1-C6-N6	-6.28	114.83	118.60
1	A	1001	A	C5-C6-N6	-6.28	118.67	123.70
1	A	1072	A	N3-C4-N9	6.28	132.43	127.40
1	A	2099	G	C4-C5-N7	6.28	113.31	110.80
1	A	890	G	N3-C4-N9	6.28	129.77	126.00
1	A	32	C	N1-C2-N3	6.28	123.60	119.20
1	A	1055	A	N9-C4-C5	6.28	108.31	105.80
1	A	2919	A	C2-N3-C4	6.28	113.74	110.60
1	A	354	A	C8-N9-C1'	-6.28	116.40	127.70
31	a	1469	C	C5-C6-N1	6.28	124.14	121.00
1	A	2280	G	C5-N7-C8	-6.28	101.16	104.30
1	A	2314	A	C2-N3-C4	-6.28	107.46	110.60
31	a	988	C	C6-N1-C2	-6.28	117.79	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	494	U	N3-C2-O2	-6.27	117.81	122.20
1	A	555	C	O5'-P-OP1	-6.27	100.05	105.70
1	A	862	C	N3-C2-O2	-6.27	117.51	121.90
1	A	902	A	C5-N7-C8	6.27	107.04	103.90
1	A	2412	C	C6-N1-C2	-6.27	117.79	120.30
1	A	2808	A	C5-N7-C8	-6.27	100.76	103.90
31	a	507	A	N1-C2-N3	-6.27	126.16	129.30
31	a	743	C	C6-N1-C2	-6.27	117.79	120.30
1	A	270	C	C6-N1-C2	-6.27	117.79	120.30
1	A	643	G	N3-C4-C5	-6.27	125.47	128.60
1	A	2443	C	O5'-P-OP2	-6.27	100.06	105.70
1	A	2683	U	N3-C2-O2	-6.27	117.81	122.20
1	A	2808	A	N9-C4-C5	-6.27	103.29	105.80
1	A	2274	A	C5-C6-N6	-6.27	118.69	123.70
1	A	2381	A	C5-C6-N1	6.27	120.83	117.70
1	A	2573	U	N1-C2-N3	6.27	118.66	114.90
1	A	2830	A	C8-N9-C4	-6.27	103.29	105.80
1	A	2453	A	N7-C8-N9	6.27	116.93	113.80
1	A	628	G	N3-C2-N2	6.26	124.29	119.90
1	A	695	C	N3-C4-C5	6.26	124.41	121.90
1	A	830	U	N1-C2-N3	6.26	118.66	114.90
1	A	1069	G	C8-N9-C1'	-6.26	118.86	127.00
1	A	2455	G	P-O3'-C3'	6.26	127.22	119.70
1	A	2662	U	N3-C4-O4	-6.26	115.02	119.40
45	o	43	LEU	CA-CB-CG	6.26	129.71	115.30
1	A	410	G	C5-C6-O6	-6.26	124.84	128.60
1	A	579	U	N3-C2-O2	-6.26	117.82	122.20
1	A	633	A	C2-N3-C4	6.26	113.73	110.60
1	A	831	C	C2-N3-C4	-6.26	116.77	119.90
1	A	2595	C	OP1-P-OP2	-6.26	110.20	119.60
2	B	95	U	N3-C2-O2	-6.26	117.82	122.20
1	A	340	C	C6-N1-C1'	-6.26	113.29	120.80
1	A	354	A	N3-C4-N9	6.26	132.41	127.40
1	A	488	G	O5'-P-OP2	6.26	118.22	110.70
1	A	587	C	N1-C2-N3	6.26	123.58	119.20
1	A	598	G	C8-N9-C4	-6.26	103.90	106.40
1	A	648	G	C5'-C4'-O4'	6.26	116.61	109.10
1	A	700	A	C8-N9-C1'	6.26	138.97	127.70
1	A	959	C	N1-C2-N3	-6.26	114.82	119.20
1	A	993	C	N3-C4-C5	6.26	124.41	121.90
1	A	64	A	C8-N9-C4	-6.26	103.30	105.80
1	A	198	A	C4-N9-C1'	-6.26	115.03	126.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	255	G	N3-C2-N2	-6.26	115.52	119.90
1	A	411	A	C8-N9-C4	-6.26	103.30	105.80
1	A	1274	G	N1-C2-N3	6.26	127.66	123.90
1	A	2480	A	C8-N9-C4	6.26	108.30	105.80
1	A	2568	A	N1-C2-N3	-6.26	126.17	129.30
1	A	2893	A	C8-N9-C4	-6.26	103.30	105.80
1	A	469	A	P-O3'-C3'	6.26	127.21	119.70
1	A	1481	A	C5-C6-N6	-6.26	118.69	123.70
1	A	2418	G	C6-N1-C2	-6.26	121.34	125.10
1	A	178	A	C5-C6-N1	6.26	120.83	117.70
1	A	1078	G	N1-C6-O6	-6.26	116.15	119.90
1	A	1481	A	C4-C5-N7	6.26	113.83	110.70
1	A	1533	A	C2-N3-C4	6.26	113.73	110.60
1	A	718	C	N3-C2-O2	-6.25	117.52	121.90
1	A	2077	C	OP1-P-OP2	-6.25	110.22	119.60
1	A	2308	C	N3-C4-N4	-6.25	113.62	118.00
1	A	157	U	P-O3'-C3'	6.25	127.20	119.70
1	A	550	A	N7-C8-N9	6.25	116.93	113.80
1	A	666	A	N3-C4-N9	6.25	132.40	127.40
2	B	68	U	N3-C2-O2	-6.25	117.82	122.20
1	A	226	A	C4-N9-C1'	-6.25	115.05	126.30
1	A	255	G	N9-C4-C5	-6.25	102.90	105.40
1	A	2064	A	P-O3'-C3'	6.25	127.20	119.70
1	A	2275	C	P-O3'-C3'	6.25	127.20	119.70
1	A	844	G	N7-C8-N9	6.25	116.22	113.10
1	A	29	U	N3-C4-O4	-6.25	115.03	119.40
1	A	462	U	C2-N1-C1'	6.25	125.20	117.70
1	A	1181	G	C4'-C3'-C2'	-6.25	96.35	102.60
1	A	2584	G	C5-C6-N1	6.25	114.62	111.50
1	A	2888	A	C4-C5-N7	-6.25	107.58	110.70
31	a	866	U	N1-C2-O2	6.25	127.17	122.80
1	A	622	A	C8-N9-C4	-6.25	103.30	105.80
1	A	669	C	C6-N1-C2	-6.25	117.80	120.30
1	A	900	G	C6-N1-C2	-6.25	121.35	125.10
1	A	965	G	C8-N9-C1'	6.25	135.12	127.00
1	A	1167	C	O5'-P-OP1	-6.25	100.08	105.70
1	A	2394	G	N3-C2-N2	-6.25	115.53	119.90
31	a	667	C	C5-C6-N1	6.25	124.12	121.00
1	A	871	U	P-O3'-C3'	6.24	127.19	119.70
1	A	985	A	N3-C4-N9	-6.24	122.41	127.40
1	A	1189	C	C6-N1-C1'	-6.24	113.31	120.80
1	A	442	G	N9-C4-C5	6.24	107.90	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	34	U	N3-C2-O2	-6.24	117.83	122.20
1	A	2290	C	N3-C4-C5	6.24	124.40	121.90
1	A	531	C	N1-C2-N3	6.24	123.57	119.20
1	A	974	U	C5-C6-N1	-6.24	119.58	122.70
1	A	2866	G	C4-C5-N7	6.24	113.30	110.80
1	A	1714	C	N3-C2-O2	-6.24	117.53	121.90
1	A	2084	G	N7-C8-N9	6.24	116.22	113.10
1	A	2646	U	O3'-P-O5'	6.24	115.85	104.00
1	A	2676	U	N1-C2-O2	6.24	127.17	122.80
1	A	195	C	N1-C2-O2	6.24	122.64	118.90
1	A	407	G	C6-C5-N7	-6.24	126.66	130.40
1	A	494	U	C3'-C2'-C1'	6.24	106.49	101.50
1	A	2088	G	C5-C6-N1	6.24	114.62	111.50
1	A	688	A	N1-C6-N6	6.23	122.34	118.60
1	A	1844	G	N7-C8-N9	6.23	116.22	113.10
31	a	908	C	C6-N1-C2	-6.23	117.81	120.30
1	A	1013	U	N3-C4-C5	-6.23	110.86	114.60
1	A	1294	G	N3-C4-N9	6.23	129.74	126.00
1	A	115	C	N3-C2-O2	-6.23	117.54	121.90
1	A	1185	U	N3-C4-C5	-6.23	110.86	114.60
1	A	2442	G	C4-C5-N7	-6.23	108.31	110.80
1	A	2646	U	C3'-C2'-C1'	6.23	106.48	101.50
1	A	770	G	OP2-P-O3'	-6.23	91.50	105.20
1	A	2439	A	C5-N7-C8	-6.23	100.78	103.90
1	A	23	G	N3-C4-C5	-6.23	125.49	128.60
1	A	354	A	O3'-P-O5'	6.23	115.83	104.00
1	A	720	A	C4-C5-C6	-6.23	113.89	117.00
1	A	1049	C	N1-C1'-C2'	6.23	122.10	114.00
1	A	1256	U	O3'-P-O5'	6.23	115.83	104.00
1	A	124	A	N9-C4-C5	-6.23	103.31	105.80
1	A	897	A	C4-C5-N7	6.23	113.81	110.70
1	A	2060	A	C5-C6-N1	6.22	120.81	117.70
1	A	2095	U	N3-C4-O4	6.22	123.76	119.40
1	A	2503	A	N9-C4-C5	6.22	108.29	105.80
1	A	2830	A	C4-N9-C1'	-6.22	115.09	126.30
1	A	1230	G	O5'-P-OP2	-6.22	100.10	105.70
1	A	566	U	N1-C2-N3	6.22	118.63	114.90
1	A	630	G	C4-N9-C1'	6.22	134.59	126.50
1	A	94	A	C5-N7-C8	-6.22	100.79	103.90
1	A	720	A	N3-C4-N9	-6.22	122.42	127.40
1	A	2392	G	C8-N9-C1'	-6.22	118.91	127.00
1	A	2804	G	C5-C6-O6	6.22	132.33	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	a	1428	A	N1-C6-N6	-6.22	114.87	118.60
1	A	117	A	C5-N7-C8	6.22	107.01	103.90
1	A	223	G	C5'-C4'-O4'	6.22	116.56	109.10
1	A	2685	C	C2-N1-C1'	6.22	125.64	118.80
1	A	376	A	OP2-P-O3'	6.22	118.88	105.20
1	A	990	G	OP1-P-OP2	-6.22	110.28	119.60
1	A	1617	A	N9-C4-C5	6.22	108.29	105.80
31	a	1449	G	C6-C5-N7	6.22	134.13	130.40
1	A	199	A	N1-C6-N6	-6.21	114.87	118.60
1	A	1195	A	N1-C2-N3	6.21	132.41	129.30
1	A	1374	G	C4-N9-C1'	6.21	134.58	126.50
1	A	2858	G	N1-C6-O6	-6.21	116.17	119.90
1	A	2085	A	OP1-P-O3'	6.21	118.87	105.20
1	A	2563	G	C2-N3-C4	6.21	115.01	111.90
2	B	107	U	C2-N1-C1'	6.21	125.16	117.70
1	A	2759	G	C5-N7-C8	-6.21	101.19	104.30
31	a	139	U	N3-C2-O2	-6.21	117.85	122.20
1	A	618	A	O5'-P-OP2	-6.21	100.11	105.70
1	A	492	G	C5-C6-O6	-6.21	124.88	128.60
1	A	614	U	C5-C6-N1	6.21	125.80	122.70
1	A	665	G	C5-N7-C8	6.21	107.41	104.30
2	B	86	A	C5-N7-C8	-6.21	100.80	103.90
31	a	447	U	C2-N1-C1'	6.21	125.15	117.70
31	a	989	C	N3-C2-O2	-6.21	117.55	121.90
1	A	544	U	N3-C4-C5	-6.21	110.88	114.60
1	A	1353	A	C6-N1-C2	-6.21	114.88	118.60
1	A	1324	A	C8-N9-C1'	-6.21	116.53	127.70
1	A	1374	G	O4'-C1'-N9	6.20	113.16	108.20
1	A	1805	U	OP2-P-O3'	6.20	118.85	105.20
1	A	2007	G	N1-C6-O6	-6.20	116.18	119.90
1	A	2475	A	C2-N3-C4	6.20	113.70	110.60
1	A	2895	G	C5-N7-C8	-6.20	101.20	104.30
1	A	2676	U	C5-C4-O4	-6.20	122.18	125.90
1	A	1200	A	C5-N7-C8	-6.20	100.80	103.90
1	A	1251	A	C2'-C3'-O3'	6.20	123.62	113.70
1	A	228	A	N7-C8-N9	6.20	116.90	113.80
1	A	2593	A	N9-C1'-C2'	6.20	122.06	114.00
1	A	2700	G	C5-C6-N1	6.20	114.60	111.50
31	a	1098	G	C6-C5-N7	-6.20	126.68	130.40
1	A	902	A	OP2-P-O3'	6.20	118.83	105.20
1	A	2297	G	C6-N1-C2	-6.20	121.38	125.10
1	A	2368	G	C8-N9-C1'	6.20	135.06	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	a	1466	G	C4-N9-C1'	6.20	134.56	126.50
1	A	707	G	OP1-P-O3'	6.20	118.83	105.20
2	B	75	U	C6-N1-C2	-6.20	117.28	121.00
1	A	1832	C	C2-N3-C4	-6.19	116.80	119.90
31	a	813	C	N1-C2-O2	6.19	122.61	118.90
1	A	16	G	C5-C6-N1	6.19	114.60	111.50
1	A	358	G	N3-C4-N9	-6.19	122.29	126.00
1	A	18	C	N3-C4-N4	6.19	122.33	118.00
1	A	2474	G	C4-N9-C1'	6.19	134.54	126.50
1	A	948	U	C2-N3-C4	6.19	130.71	127.00
1	A	1251	A	C5-N7-C8	-6.19	100.81	103.90
1	A	1285	A	C6-N1-C2	6.19	122.31	118.60
1	A	2396	A	OP2-P-O3'	6.19	118.81	105.20
1	A	517	A	C6-C5-N7	6.18	136.63	132.30
1	A	1676	A	N9-C4-C5	-6.18	103.33	105.80
31	a	945	C	C6-N1-C2	-6.18	117.83	120.30
1	A	687	G	N7-C8-N9	6.18	116.19	113.10
1	A	2603	G	C4-N9-C1'	6.18	134.54	126.50
1	A	568	C	N1-C2-O2	6.18	122.61	118.90
1	A	2045	A	C6-C5-N7	-6.18	127.97	132.30
1	A	2418	G	P-O3'-C3'	6.18	127.12	119.70
31	a	1443	A	N7-C8-N9	6.18	116.89	113.80
1	A	1004	A	C5'-C4'-O4'	6.18	116.51	109.10
1	A	1041	G	OP1-P-OP2	6.18	128.87	119.60
1	A	300	G	N1-C6-O6	-6.18	116.19	119.90
1	A	503	A	N3-C4-N9	-6.18	122.46	127.40
1	A	1017	A	O5'-P-OP2	-6.18	100.14	105.70
1	A	1224	U	N3-C2-O2	-6.18	117.88	122.20
1	A	2088	G	C8-N9-C4	-6.18	103.93	106.40
1	A	2426	G	N1-C6-O6	-6.18	116.19	119.90
1	A	2639	C	C2-N3-C4	-6.18	116.81	119.90
2	B	108	U	C6-N1-C1'	-6.18	112.55	121.20
1	A	1068	G	N1-C6-O6	-6.17	116.19	119.90
1	A	2638	C	N1-C2-O2	6.17	122.61	118.90
1	A	2807	G	O4'-C1'-N9	-6.17	103.26	108.20
31	a	1163	G	N3-C4-C5	-6.17	125.51	128.60
1	A	14	A	C6-C5-N7	-6.17	127.98	132.30
1	A	521	U	N1-C1'-C2'	6.17	122.03	114.00
1	A	2064	A	C5'-C4'-C3'	6.17	125.88	116.00
1	A	1001	A	C8-N9-C1'	6.17	138.81	127.70
1	A	1034	A	C6-N1-C2	-6.17	114.90	118.60
1	A	1288	G	C5-C6-O6	-6.17	124.90	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1314	A	C5-C6-N1	6.17	120.79	117.70
1	A	2024	A	O5'-P-OP2	6.17	118.11	110.70
1	A	8	U	C6-N1-C1'	6.17	129.84	121.20
1	A	1599	G	C8-N9-C4	-6.17	103.93	106.40
1	A	472	C	C6-N1-C1'	-6.17	113.40	120.80
1	A	688	A	C6-C5-N7	-6.17	127.98	132.30
1	A	810	A	C5-C6-N1	6.17	120.78	117.70
1	A	1027	A	C4'-C3'-O3'	6.17	125.34	113.00
31	a	302	C	C5-C6-N1	6.17	124.08	121.00
1	A	1035	C	N1-C1'-C2'	6.17	122.02	114.00
1	A	1375	G	O5'-P-OP1	-6.17	100.15	105.70
1	A	2378	G	OP1-P-O3'	6.17	118.77	105.20
1	A	2590	U	N3-C2-O2	-6.17	117.88	122.20
1	A	1004	A	C6-C5-N7	6.17	136.62	132.30
1	A	1614	A	N1-C6-N6	-6.17	114.90	118.60
31	a	1139	C	C5-C6-N1	6.17	124.08	121.00
1	A	30	G	N7-C8-N9	6.16	116.18	113.10
1	A	69	C	C2-N3-C4	-6.16	116.82	119.90
1	A	680	C	C6-N1-C2	-6.16	117.83	120.30
1	A	1164	G	N7-C8-N9	-6.16	110.02	113.10
1	A	2042	A	C4-C5-N7	6.16	113.78	110.70
1	A	2367	A	C5-C6-N6	-6.16	118.77	123.70
1	A	14	A	N3-C4-N9	6.16	132.33	127.40
1	A	32	C	N1-C2-O2	-6.16	115.20	118.90
1	A	476	A	C8-N9-C4	-6.16	103.34	105.80
1	A	1011	U	OP1-P-O3'	6.16	118.75	105.20
1	A	1034	A	C2-N3-C4	6.16	113.68	110.60
1	A	2025	A	N9-C4-C5	-6.16	103.34	105.80
1	A	2391	C	O5'-P-OP2	6.16	118.09	110.70
1	A	2778	G	N7-C8-N9	6.16	116.18	113.10
1	A	33	U	N3-C4-O4	-6.16	115.09	119.40
1	A	1012	G	C2-N3-C4	-6.16	108.82	111.90
1	A	2092	C	N3-C2-O2	-6.16	117.59	121.90
1	A	2363	A	O3'-P-O5'	6.16	115.70	104.00
1	A	2427	G	C5-C6-N1	6.16	114.58	111.50
1	A	2637	C	O4'-C1'-N1	6.16	113.13	108.20
1	A	2796	C	N3-C4-C5	6.16	124.36	121.90
10	J	18	ARG	NE-CZ-NH2	-6.16	117.22	120.30
31	a	170	U	N1-C2-O2	6.16	127.11	122.80
1	A	564	U	N1-C2-O2	6.16	127.11	122.80
1	A	873	U	C6-N1-C1'	6.16	129.82	121.20
1	A	14	A	N1-C6-N6	6.16	122.29	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	627	C	C1'-O4'-C4'	-6.16	104.98	109.90
1	A	905	U	C5-C4-O4	6.16	129.59	125.90
1	A	1012	G	N7-C8-N9	6.16	116.18	113.10
1	A	1306	A	C4-C5-N7	6.16	113.78	110.70
1	A	1933	G	C2-N3-C4	-6.16	108.82	111.90
31	a	312	U	C2-N1-C1'	6.16	125.09	117.70
1	A	69	C	C1'-O4'-C4'	-6.15	104.98	109.90
1	A	1255	A	N1-C2-N3	-6.15	126.22	129.30
1	A	474	A	C5-C6-N1	6.15	120.78	117.70
1	A	513	G	C5-C6-N1	6.15	114.58	111.50
13	M	108	LEU	CA-CB-CG	6.15	129.45	115.30
1	A	420	A	C4-C5-C6	6.15	120.08	117.00
1	A	1289	A	N3-C4-C5	6.15	131.10	126.80
1	A	2731	C	N3-C2-O2	-6.15	117.59	121.90
31	a	255	G	C4-N9-C1'	-6.15	118.50	126.50
1	A	2296	A	N7-C8-N9	6.15	116.87	113.80
1	A	2726	C	C4-C5-C6	-6.15	114.33	117.40
1	A	506	A	O4'-C1'-N9	6.15	113.12	108.20
1	A	2095	U	C4-C5-C6	6.15	123.39	119.70
1	A	2823	G	C4-N9-C1'	6.15	134.49	126.50
1	A	298	U	C6-N1-C1'	6.14	129.80	121.20
1	A	667	G	N9-C4-C5	-6.14	102.94	105.40
1	A	900	G	N3-C4-N9	-6.14	122.31	126.00
1	A	1994	C	C6-N1-C1'	-6.14	113.43	120.80
31	a	1163	G	C8-N9-C1'	-6.14	119.01	127.00
1	A	858	U	N3-C4-O4	-6.14	115.10	119.40
1	A	1014	U	N1-C2-O2	-6.14	118.50	122.80
1	A	1094	A	O4'-C1'-N9	6.14	113.11	108.20
1	A	2049	U	C2-N3-C4	6.14	130.69	127.00
1	A	2448	G	N1-C6-O6	-6.14	116.21	119.90
1	A	2864	A	C4-C5-C6	-6.14	113.93	117.00
1	A	2076	A	O3'-P-O5'	6.14	115.67	104.00
1	A	2299	U	N3-C2-O2	-6.14	117.90	122.20
1	A	2802	A	OP1-P-O3'	6.14	118.71	105.20
1	A	2470	C	N3-C4-N4	-6.14	113.70	118.00
31	a	362	G	N3-C4-N9	6.14	129.68	126.00
1	A	2914	A	N9-C1'-C2'	6.14	121.98	114.00
1	A	667	G	C5-C6-N1	-6.14	108.43	111.50
1	A	1051	C	C2-N3-C4	-6.14	116.83	119.90
1	A	2080	G	N7-C8-N9	-6.14	110.03	113.10
1	A	2570	G	N1-C2-N2	-6.14	110.68	116.20
1	A	2859	G	C5-N7-C8	-6.14	101.23	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	68	A	C5-C6-N6	-6.13	118.79	123.70
1	A	636	A	C5-C6-N1	6.13	120.77	117.70
1	A	774	G	C5-C6-O6	6.13	132.28	128.60
1	A	861	C	N3-C4-N4	6.13	122.29	118.00
1	A	1334	C	N3-C4-C5	6.13	124.35	121.90
1	A	2480	A	C8-N9-C1'	-6.13	116.66	127.70
1	A	2797	C	C5-C4-N4	-6.13	115.91	120.20
1	A	338	G	C4-C5-N7	6.13	113.25	110.80
1	A	1914	C	N1-C2-O2	6.13	122.58	118.90
1	A	200	A	C4-N9-C1'	6.13	137.34	126.30
1	A	338	G	N9-C4-C5	-6.13	102.95	105.40
1	A	563	G	C8-N9-C1'	-6.13	119.03	127.00
1	A	631	U	C5-C6-N1	6.13	125.77	122.70
1	A	1783	G	N1-C6-O6	-6.13	116.22	119.90
1	A	1850	G	N1-C6-O6	-6.13	116.22	119.90
1	A	1972	G	C6-C5-N7	-6.13	126.72	130.40
1	A	2096	G	N1-C6-O6	-6.13	116.22	119.90
1	A	541	G	N1-C2-N3	-6.13	120.22	123.90
1	A	546	A	C5-N7-C8	-6.13	100.84	103.90
1	A	630	G	C2-N3-C4	-6.13	108.83	111.90
1	A	900	G	N9-C4-C5	6.13	107.85	105.40
1	A	1093	C	C4-C5-C6	6.13	120.46	117.40
1	A	1263	A	C8-N9-C4	6.13	108.25	105.80
1	A	2305	A	C4-C5-C6	-6.13	113.94	117.00
1	A	2497	G	C8-N9-C4	-6.13	103.95	106.40
31	a	302	C	C2-N1-C1'	6.13	125.54	118.80
1	A	1710	G	C5-C6-N1	6.12	114.56	111.50
31	a	311	G	N7-C8-N9	6.12	116.16	113.10
31	a	424	G	N3-C4-C5	-6.12	125.54	128.60
1	A	1015	C	C3'-C2'-C1'	6.12	106.40	101.50
1	A	1036	C	C5-C4-N4	6.12	124.49	120.20
1	A	1281	U	N1-C2-N3	6.12	118.57	114.90
1	A	1997	A	O4'-C1'-N9	-6.12	103.30	108.20
1	A	2603	G	N9-C4-C5	-6.12	102.95	105.40
1	A	1324	A	N1-C2-N3	-6.12	126.24	129.30
1	A	2073	G	C5-C6-N1	6.12	114.56	111.50
1	A	2673	C	OP2-P-O3'	6.12	118.66	105.20
1	A	2854	A	N3-C4-C5	-6.12	122.52	126.80
1	A	498	G	N3-C4-N9	6.12	129.67	126.00
1	A	700	A	C4-C5-C6	-6.12	113.94	117.00
1	A	2589	U	N1-C2-N3	6.12	118.57	114.90
1	A	1469	G	C4-C5-N7	6.12	113.25	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	557	G	C4-C5-C6	6.12	122.47	118.80
1	A	962	A	C6-C5-N7	-6.12	128.02	132.30
1	A	1453	G	C8-N9-C4	-6.12	103.95	106.40
31	a	586	C	C5-C6-N1	6.12	124.06	121.00
1	A	584	G	C6-N1-C2	-6.11	121.43	125.10
1	A	1042	C	N3-C4-C5	6.11	124.35	121.90
1	A	1484	G	N3-C2-N2	-6.11	115.62	119.90
1	A	461	A	N1-C2-N3	-6.11	126.25	129.30
1	A	527	G	O4'-C1'-N9	6.11	113.09	108.20
1	A	818	U	N3-C4-C5	6.11	118.27	114.60
1	A	917	U	C2-N3-C4	-6.11	123.33	127.00
1	A	2037	G	OP1-P-OP2	-6.11	110.44	119.60
1	A	2857	A	N3-C4-C5	6.11	131.08	126.80
1	A	303	G	N9-C4-C5	6.11	107.84	105.40
1	A	1913	U	C5-C6-N1	6.11	125.75	122.70
1	A	2455	G	C5'-C4'-O4'	6.11	116.43	109.10
1	A	561	C	OP2-P-O3'	6.11	118.63	105.20
1	A	2086	A	N9-C4-C5	-6.11	103.36	105.80
1	A	664	G	C6-N1-C2	-6.10	121.44	125.10
1	A	1789	A	N7-C8-N9	6.10	116.85	113.80
1	A	269	G	O4'-C1'-N9	6.10	113.08	108.20
1	A	1072	A	C2-N3-C4	6.10	113.65	110.60
1	A	2023	C	O4'-C1'-N1	6.10	113.08	108.20
1	A	2025	A	C4-C5-C6	-6.10	113.95	117.00
1	A	2392	G	C8-N9-C4	6.10	108.84	106.40
1	A	2662	U	C4-C5-C6	6.10	123.36	119.70
1	A	2845	G	N1-C2-N2	6.10	121.69	116.20
2	B	3	U	C2-N1-C1'	6.10	125.02	117.70
1	A	589	U	OP2-P-O3'	6.10	118.62	105.20
1	A	1069	G	N1-C2-N2	-6.10	110.71	116.20
1	A	1399	C	C6-N1-C2	-6.10	117.86	120.30
1	A	219	A	C8-N9-C4	-6.10	103.36	105.80
1	A	1460	U	C2-N1-C1'	-6.10	110.38	117.70
1	A	2394	G	C4-C5-N7	-6.10	108.36	110.80
1	A	2593	A	C5-C6-N1	6.10	120.75	117.70
1	A	2806	U	C5-C6-N1	-6.10	119.65	122.70
1	A	721	A	N3-C4-C5	6.10	131.07	126.80
1	A	1711	G	N3-C2-N2	-6.10	115.63	119.90
1	A	2741	G	N9-C4-C5	6.10	107.84	105.40
2	B	63	U	N1-C2-O2	6.10	127.07	122.80
1	A	542	A	N1-C2-N3	-6.09	126.25	129.30
1	A	659	A	C4-C5-N7	6.09	113.75	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	703	A	N3-C4-N9	6.09	132.28	127.40
1	A	1034	A	O5'-P-OP2	-6.09	100.21	105.70
1	A	1651	C	C2-N3-C4	6.09	122.95	119.90
1	A	2277	G	C4-N9-C1'	6.09	134.42	126.50
2	B	83	C	C6-N1-C2	-6.09	117.86	120.30
1	A	240	C	N3-C2-O2	-6.09	117.64	121.90
1	A	1362	C	OP2-P-O3'	6.09	118.60	105.20
1	A	1871	U	N3-C2-O2	-6.09	117.94	122.20
2	B	76	A	C6-N1-C2	-6.09	114.94	118.60
31	a	745	U	N3-C2-O2	-6.09	117.94	122.20
1	A	46	C	C6-N1-C1'	-6.09	113.49	120.80
1	A	300	G	N1-C2-N2	6.09	121.68	116.20
1	A	568	C	C4-C5-C6	6.09	120.44	117.40
1	A	1172	A	C5-N7-C8	-6.09	100.86	103.90
1	A	2720	A	N1-C2-N3	-6.09	126.25	129.30
31	a	256	C	C5-C6-N1	6.09	124.04	121.00
1	A	18	C	C6-N1-C2	-6.09	117.86	120.30
1	A	20	C	C2-N3-C4	-6.09	116.86	119.90
1	A	1004	A	C4-N9-C1'	-6.09	115.34	126.30
1	A	1284	A	C2-N3-C4	6.09	113.64	110.60
1	A	2077	C	C6-N1-C2	6.09	122.73	120.30
1	A	2416	G	C6-N1-C2	-6.09	121.45	125.10
1	A	495	A	N7-C8-N9	-6.08	110.76	113.80
1	A	629	A	C4-C5-N7	6.08	113.74	110.70
1	A	1708	A	C6-C5-N7	-6.08	128.04	132.30
1	A	2024	A	O5'-P-OP1	-6.08	100.22	105.70
1	A	2856	U	C5'-C4'-O4'	6.08	116.40	109.10
1	A	2894	C	C4'-C3'-O3'	6.08	125.17	113.00
1	A	559	A	OP1-P-OP2	-6.08	110.48	119.60
1	A	2831	G	O5'-P-OP2	-6.08	100.23	105.70
1	A	284	C	C5-C6-N1	6.08	124.04	121.00
1	A	1260	C	N1-C2-O2	6.08	122.55	118.90
1	A	1029	C	O5'-C5'-C4'	6.08	123.25	111.70
1	A	2525	C	N1-C2-N3	6.08	123.45	119.20
2	B	7	G	C4-C5-N7	6.08	113.23	110.80
1	A	1352	C	C4-C5-C6	-6.08	114.36	117.40
1	A	1852	G	N1-C6-O6	-6.08	116.25	119.90
1	A	2057	A	N1-C2-N3	6.07	132.34	129.30
1	A	2281	C	N3-C4-C5	6.07	124.33	121.90
1	A	2648	G	N9-C4-C5	6.07	107.83	105.40
1	A	2721	G	N3-C4-C5	-6.07	125.56	128.60
31	a	868	C	N1-C2-O2	6.07	122.54	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	727	G	C8-N9-C4	-6.07	103.97	106.40
1	A	828	A	C8-N9-C1'	-6.07	116.77	127.70
1	A	194	A	O4'-C1'-N9	6.07	113.06	108.20
1	A	350	G	C2-N3-C4	6.07	114.94	111.90
1	A	519	G	N3-C4-N9	-6.07	122.36	126.00
1	A	985	A	C4-C5-C6	-6.07	113.97	117.00
1	A	1365	G	N3-C2-N2	6.07	124.15	119.90
1	A	2063	C	N3-C4-C5	-6.07	119.47	121.90
1	A	2339	U	C2-N1-C1'	6.07	124.98	117.70
1	A	2427	G	N7-C8-N9	6.07	116.14	113.10
3	C	198	LEU	CA-CB-CG	6.07	129.26	115.30
1	A	471	G	N1-C2-N2	6.07	121.66	116.20
1	A	373	A	C5-C6-N6	-6.07	118.85	123.70
1	A	1042	C	O3'-P-O5'	6.07	115.53	104.00
1	A	1234	G	C4-N9-C1'	6.07	134.39	126.50
1	A	2057	A	N3-C4-N9	6.07	132.25	127.40
1	A	2088	G	N3-C4-N9	6.07	129.64	126.00
1	A	2355	A	C8-N9-C4	-6.07	103.37	105.80
1	A	2397	G	C5'-C4'-O4'	6.07	116.38	109.10
1	A	308	C	C6-N1-C2	-6.07	117.87	120.30
1	A	1173	A	N1-C2-N3	-6.07	126.27	129.30
1	A	1680	U	N3-C2-O2	-6.07	117.95	122.20
1	A	2598	U	N3-C4-C5	6.07	118.24	114.60
1	A	2845	G	N9-C4-C5	6.07	107.83	105.40
1	A	304	G	N3-C4-C5	6.06	131.63	128.60
1	A	412	U	O5'-P-OP1	-6.06	100.24	105.70
1	A	338	G	C8-N9-C1'	-6.06	119.12	127.00
31	a	787	C	C6-N1-C2	-6.06	117.88	120.30
34	d	165	LEU	CA-CB-CG	6.06	129.24	115.30
31	a	424	G	C8-N9-C1'	-6.06	119.12	127.00
1	A	1182	G	C6-N1-C2	-6.06	121.46	125.10
1	A	1197	C	N3-C4-N4	6.06	122.24	118.00
1	A	2028	A	C5-N7-C8	-6.06	100.87	103.90
1	A	2369	C	C6-N1-C1'	-6.06	113.53	120.80
31	a	1183	C	C5-C6-N1	6.06	124.03	121.00
1	A	65	A	C5-N7-C8	-6.06	100.87	103.90
1	A	615	A	C6-N1-C2	-6.06	114.97	118.60
1	A	702	U	C5-C6-N1	-6.06	119.67	122.70
1	A	778	G	C5-C6-N1	6.06	114.53	111.50
1	A	2062	G	OP2-P-O3'	6.06	118.53	105.20
1	A	68	A	N1-C2-N3	6.06	132.33	129.30
1	A	707	G	P-O3'-C3'	6.06	126.97	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2525	C	C1'-O4'-C4'	-6.06	105.06	109.90
1	A	554	C	N3-C4-N4	6.05	122.24	118.00
1	A	868	A	C8-N9-C1'	-6.05	116.80	127.70
1	A	999	U	N3-C4-O4	-6.05	115.16	119.40
1	A	377	U	N3-C4-O4	6.05	123.64	119.40
1	A	478	A	O4'-C1'-N9	6.05	113.04	108.20
1	A	594	G	C8-N9-C1'	-6.05	119.13	127.00
1	A	1719	C	N1-C2-O2	6.05	122.53	118.90
1	A	2540	A	C8-N9-C4	-6.05	103.38	105.80
1	A	38	A	C5-N7-C8	-6.05	100.88	103.90
1	A	582	G	N9-C4-C5	6.05	107.82	105.40
1	A	943	C	C5-C6-N1	6.05	124.02	121.00
1	A	1184	C	N1-C1'-C2'	6.05	121.86	114.00
1	A	1809	C	C2-N3-C4	-6.05	116.88	119.90
1	A	2071	C	N3-C2-O2	-6.05	117.67	121.90
1	A	2516	G	C2-N3-C4	6.05	114.92	111.90
1	A	153	G	C4-C5-N7	6.05	113.22	110.80
1	A	2375	U	C2-N3-C4	-6.05	123.37	127.00
1	A	1231	A	C4-C5-C6	-6.05	113.98	117.00
1	A	2361	U	C6-N1-C2	-6.05	117.37	121.00
1	A	2411	A	C4-C5-N7	6.05	113.72	110.70
1	A	193	A	N1-C2-N3	-6.04	126.28	129.30
1	A	769	U	N1-C2-O2	6.04	127.03	122.80
1	A	1240	U	C6-N1-C1'	-6.04	112.74	121.20
1	A	1459	A	N9-C4-C5	-6.04	103.38	105.80
1	A	2516	G	C5-C6-O6	-6.04	124.97	128.60
1	A	2797	C	N3-C4-C5	6.04	124.32	121.90
1	A	2805	A	O5'-P-OP1	6.04	117.95	110.70
1	A	1805	U	C6-N1-C2	-6.04	117.37	121.00
1	A	2410	G	C4-N9-C1'	6.04	134.36	126.50
1	A	710	C	C2-N1-C1'	6.04	125.44	118.80
1	A	1401	G	C8-N9-C4	-6.04	103.98	106.40
1	A	704	U	N1-C1'-C2'	6.04	121.85	114.00
1	A	1321	A	N9-C4-C5	6.04	108.22	105.80
1	A	2435	U	N3-C2-O2	-6.04	117.97	122.20
1	A	234	C	O4'-C1'-N1	6.04	113.03	108.20
1	A	1261	G	C6-N1-C2	6.04	128.72	125.10
1	A	1413	C	N3-C2-O2	-6.04	117.67	121.90
1	A	1430	A	N3-C4-N9	-6.04	122.57	127.40
1	A	2084	G	O4'-C1'-N9	6.04	113.03	108.20
31	a	1485	G	N7-C8-N9	6.04	116.12	113.10
1	A	1768	C	N1-C2-O2	6.04	122.52	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2085	A	C8-N9-C4	-6.04	103.39	105.80
1	A	571	A	C5-C6-N6	6.04	128.53	123.70
1	A	1368	C	N3-C4-C5	-6.04	119.49	121.90
31	a	1459	C	N1-C2-O2	6.04	122.52	118.90
1	A	272	C	N3-C4-C5	-6.03	119.49	121.90
1	A	598	G	N9-C4-C5	-6.03	102.99	105.40
1	A	909	G	N9-C4-C5	-6.03	102.99	105.40
1	A	1072	A	N9-C4-C5	6.03	108.21	105.80
1	A	1284	A	C8-N9-C4	6.03	108.21	105.80
1	A	2437	G	C5-C6-O6	-6.03	124.98	128.60
1	A	2863	G	C4-C5-C6	6.03	122.42	118.80
1	A	736	C	N3-C2-O2	-6.03	117.68	121.90
1	A	869	G	C4-C5-C6	-6.03	115.18	118.80
1	A	2475	A	N3-C4-C5	-6.03	122.58	126.80
1	A	205	U	N3-C4-C5	6.03	118.22	114.60
1	A	968	A	N1-C2-N3	6.03	132.31	129.30
1	A	1103	G	N3-C2-N2	6.03	124.12	119.90
1	A	1175	G	N3-C2-N2	-6.03	115.68	119.90
1	A	2673	C	C6-N1-C1'	-6.03	113.56	120.80
1	A	2700	G	N1-C6-O6	-6.03	116.28	119.90
1	A	2850	G	N3-C4-N9	6.03	129.62	126.00
31	a	336	C	C2-N1-C1'	6.03	125.43	118.80
31	a	687	C	N1-C2-O2	6.03	122.52	118.90
1	A	2499	G	N3-C4-N9	6.03	129.62	126.00
1	A	424	C	C6-N1-C2	-6.03	117.89	120.30
1	A	1033	G	N1-C2-N3	6.03	127.52	123.90
1	A	1286	G	N7-C8-N9	-6.03	110.09	113.10
1	A	2457	A	N9-C4-C5	6.03	108.21	105.80
22	V	27	ARG	NE-CZ-NH1	6.03	123.31	120.30
31	a	682	G	N7-C8-N9	6.03	116.11	113.10
1	A	486	G	N9-C4-C5	6.03	107.81	105.40
1	A	1094	A	N7-C8-N9	6.03	116.81	113.80
1	A	1214	C	C2-N1-C1'	6.03	125.43	118.80
1	A	2517	G	N7-C8-N9	6.03	116.11	113.10
1	A	214	G	C5-N7-C8	-6.02	101.29	104.30
1	A	901	G	C4-C5-N7	-6.02	108.39	110.80
31	a	162	A	O4'-C1'-N9	6.02	113.02	108.20
31	a	1107	C	N1-C2-O2	6.02	122.51	118.90
31	a	1466	G	N3-C4-C5	-6.02	125.59	128.60
1	A	29	U	C2-N1-C1'	6.02	124.93	117.70
1	A	652	A	N9-C4-C5	6.02	108.21	105.80
1	A	758	G	C6-C5-N7	-6.02	126.79	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1250	G	P-O3'-C3'	-6.02	112.47	119.70
1	A	2427	G	C4-N9-C1'	6.02	134.33	126.50
1	A	2806	U	P-O3'-C3'	-6.02	112.47	119.70
31	a	682	G	C6-C5-N7	-6.02	126.79	130.40
1	A	1174	U	C5'-C4'-O4'	6.02	116.33	109.10
1	A	2071	C	C4-C5-C6	-6.02	114.39	117.40
1	A	288	C	C6-N1-C2	-6.02	117.89	120.30
1	A	883	C	N3-C4-C5	6.02	124.31	121.90
1	A	958	U	C6-N1-C1'	-6.02	112.77	121.20
1	A	1296	C	N3-C2-O2	-6.02	117.69	121.90
1	A	2056	G	C4'-C3'-C2'	6.02	108.62	102.60
1	A	2188	C	N1-C2-O2	6.02	122.51	118.90
1	A	2908	U	C2-N3-C4	-6.02	123.39	127.00
1	A	442	G	N1-C2-N2	6.02	121.62	116.20
1	A	527	G	C5-N7-C8	-6.02	101.29	104.30
1	A	1002	U	C5-C6-N1	6.02	125.71	122.70
1	A	1184	C	P-O3'-C3'	6.02	126.92	119.70
1	A	1051	C	C6-N1-C1'	-6.02	113.58	120.80
31	a	217	G	N3-C4-C5	6.02	131.61	128.60
1	A	2655	U	N1-C2-O2	6.01	127.01	122.80
1	A	614	U	C4-C5-C6	-6.01	116.09	119.70
1	A	873	U	N3-C2-O2	6.01	126.41	122.20
1	A	1321	A	C4-C5-C6	-6.01	113.99	117.00
1	A	238	U	C2-N3-C4	6.01	130.61	127.00
1	A	1009	C	C6-N1-C1'	6.01	128.01	120.80
1	A	1992	C	C6-N1-C1'	-6.01	113.59	120.80
1	A	2712	G	C2-N3-C4	6.01	114.91	111.90
1	A	2806	U	C5'-C4'-O4'	6.01	116.31	109.10
31	a	528	A	C8-N9-C4	-6.01	103.39	105.80
31	a	734	C	N1-C2-O2	6.01	122.51	118.90
1	A	621	A	P-O3'-C3'	6.01	126.91	119.70
1	A	782	C	N3-C4-C5	6.01	124.30	121.90
1	A	2064	A	C8-N9-C1'	6.01	138.52	127.70
1	A	2097	G	C8-N9-C4	-6.01	104.00	106.40
1	A	2801	C	C6-N1-C1'	-6.01	113.59	120.80
1	A	528	C	N3-C4-C5	6.01	124.30	121.90
1	A	299	U	N1-C1'-C2'	6.01	121.81	114.00
1	A	565	G	C4-C5-N7	6.01	113.20	110.80
1	A	614	U	O5'-P-OP1	6.01	117.91	110.70
1	A	2513	G	C8-N9-C4	-6.01	104.00	106.40
1	A	2707	C	N3-C4-C5	6.01	124.30	121.90
31	a	60	A	C2-N3-C4	6.01	113.60	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	a	148	G	N7-C8-N9	6.01	116.10	113.10
31	a	187	U	C5-C6-N1	6.01	125.70	122.70
1	A	178	A	C5-N7-C8	-6.00	100.90	103.90
1	A	1712	A	C4-C5-C6	-6.00	114.00	117.00
1	A	2509	A	C4-C5-N7	6.00	113.70	110.70
1	A	193	A	N7-C8-N9	6.00	116.80	113.80
1	A	2471	G	N1-C6-O6	-6.00	116.30	119.90
1	A	2827	A	N1-C2-N3	-6.00	126.30	129.30
1	A	1078	G	O5'-P-OP1	-6.00	100.30	105.70
1	A	2459	A	C5-C6-N1	6.00	120.70	117.70
31	a	255	G	C8-N9-C1'	6.00	134.80	127.00
1	A	353	A	N1-C6-N6	6.00	122.20	118.60
1	A	383	A	O4'-C1'-N9	6.00	113.00	108.20
1	A	1008	C	N3-C4-N4	6.00	122.20	118.00
1	A	2249	G	C2-N3-C4	-6.00	108.90	111.90
1	A	2742	C	C5-C6-N1	6.00	124.00	121.00
1	A	2894	C	N1-C2-N3	6.00	123.40	119.20
1	A	515	G	N7-C8-N9	6.00	116.10	113.10
1	A	1291	A	C8-N9-C4	6.00	108.20	105.80
1	A	2072	C	C5-C4-N4	-6.00	116.00	120.20
1	A	2543	G	C4-C5-N7	6.00	113.20	110.80
1	A	2549	U	C6-N1-C2	-6.00	117.40	121.00
1	A	337	A	C8-N9-C4	-6.00	103.40	105.80
1	A	815	G	C4-C5-C6	-6.00	115.20	118.80
1	A	2397	G	N9-C4-C5	6.00	107.80	105.40
31	a	1012	G	C6-C5-N7	-6.00	126.80	130.40
1	A	866	A	OP2-P-O3'	5.99	118.39	105.20
1	A	906	A	O4'-C1'-N9	5.99	112.99	108.20
1	A	2320	C	C2-N3-C4	5.99	122.90	119.90
1	A	225	A	N9-C4-C5	-5.99	103.40	105.80
1	A	582	G	C4-C5-C6	5.99	122.39	118.80
1	A	1168	C	O4'-C1'-N1	5.99	112.99	108.20
1	A	1369	G	N9-C1'-C2'	5.99	121.79	114.00
1	A	1693	G	C5-N7-C8	-5.99	101.30	104.30
1	A	1809	C	N1-C2-N3	5.99	123.39	119.20
1	A	1920	C	N3-C2-O2	-5.99	117.71	121.90
1	A	2101	U	N3-C2-O2	-5.99	118.01	122.20
1	A	2274	A	C6-C5-N7	-5.99	128.11	132.30
1	A	2578	C	O5'-P-OP2	-5.99	100.31	105.70
1	A	625	G	C5-C6-O6	5.99	132.19	128.60
1	A	2747	U	N1-C2-N3	5.99	118.49	114.90
1	A	234	C	N3-C2-O2	-5.99	117.71	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	508	C	N3-C4-N4	-5.99	113.81	118.00
1	A	866	A	N7-C8-N9	5.99	116.79	113.80
1	A	1298	G	C5-C6-O6	5.99	132.19	128.60
1	A	2075	G	C2-N3-C4	5.99	114.89	111.90
1	A	2869	G	C8-N9-C4	5.99	108.79	106.40
1	A	860	U	C5-C6-N1	-5.98	119.71	122.70
1	A	898	U	N3-C2-O2	-5.98	118.01	122.20
1	A	2497	G	C4-N9-C1'	5.98	134.28	126.50
1	A	2672	G	P-O3'-C3'	5.98	126.88	119.70
1	A	2722	U	N1-C2-O2	5.98	126.99	122.80
1	A	2855	A	N9-C4-C5	-5.98	103.41	105.80
31	a	608	U	N1-C2-O2	5.98	126.99	122.80
1	A	627	C	O5'-C5'-C4'	-5.98	100.34	111.70
1	A	973	A	N9-C4-C5	-5.98	103.41	105.80
1	A	1767	G	C6-C5-N7	-5.98	126.81	130.40
1	A	2077	C	N3-C4-C5	5.98	124.29	121.90
1	A	718	C	C2-N3-C4	-5.98	116.91	119.90
1	A	2078	A	O5'-P-OP2	5.98	117.88	110.70
1	A	2411	A	N3-C4-N9	-5.98	122.62	127.40
1	A	23	G	C4-C5-N7	5.98	113.19	110.80
1	A	514	G	N3-C4-N9	5.98	129.59	126.00
1	A	811	C	C2-N3-C4	-5.98	116.91	119.90
1	A	1042	C	C6-N1-C1'	-5.98	113.63	120.80
1	A	1044	A	C5'-C4'-O4'	5.98	116.27	109.10
1	A	1047	G	C6-C5-N7	-5.98	126.81	130.40
1	A	1265	G	N7-C8-N9	5.98	116.09	113.10
1	A	2457	A	C4-C5-C6	5.98	119.99	117.00
1	A	2465	U	N3-C2-O2	-5.98	118.02	122.20
1	A	2546	U	N3-C4-O4	5.98	123.58	119.40
1	A	978	A	P-O3'-C3'	5.98	126.87	119.70
1	A	1797	G	C5-N7-C8	-5.98	101.31	104.30
1	A	2438	A	C5-C6-N6	-5.98	118.92	123.70
31	a	1131	C	N3-C2-O2	-5.98	117.72	121.90
1	A	125	A	N3-C4-C5	5.97	130.98	126.80
1	A	774	G	C4-N9-C1'	5.97	134.27	126.50
1	A	957	C	N1-C1'-C2'	5.97	121.77	114.00
1	A	1263	A	C4-C5-N7	5.97	113.69	110.70
1	A	1395	G	C4-N9-C1'	5.97	134.26	126.50
1	A	1958	U	N3-C2-O2	-5.97	118.02	122.20
31	a	1451	G	C8-N9-C4	-5.97	104.01	106.40
1	A	2419	A	C4'-C3'-O3'	5.97	124.94	113.00
1	A	2523	C	OP2-P-O3'	5.97	118.34	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	180	G	C5-C6-N1	5.97	114.48	111.50
1	A	1270	U	N1-C2-O2	5.97	126.98	122.80
1	A	1416	U	C2-N1-C1'	5.97	124.86	117.70
1	A	2363	A	P-O3'-C3'	5.97	126.86	119.70
1	A	2704	A	C8-N9-C1'	-5.97	116.95	127.70
1	A	2707	C	N3-C2-O2	-5.97	117.72	121.90
1	A	293	U	C2-N1-C1'	5.97	124.86	117.70
1	A	1062	U	N3-C4-C5	5.97	118.18	114.60
1	A	1401	G	N1-C6-O6	-5.97	116.32	119.90
1	A	2662	U	N3-C4-C5	5.97	118.18	114.60
1	A	193	A	O4'-C1'-N9	-5.97	103.43	108.20
1	A	609	U	N3-C2-O2	-5.97	118.02	122.20
1	A	891	A	C4-C5-N7	5.97	113.68	110.70
1	A	1231	A	C5-N7-C8	-5.97	100.92	103.90
1	A	753	U	C2-N1-C1'	5.96	124.86	117.70
1	A	2563	G	C5-C6-N1	5.96	114.48	111.50
1	A	2052	C	N1-C2-N3	-5.96	115.03	119.20
1	A	861	C	N1-C2-O2	5.96	122.48	118.90
1	A	1240	U	N1-C2-N3	-5.96	111.32	114.90
1	A	1271	G	N1-C2-N3	-5.96	120.32	123.90
1	A	1286	G	C8-N9-C1'	-5.96	119.25	127.00
1	A	2282	G	C8-N9-C4	-5.96	104.02	106.40
1	A	2452	A	O4'-C1'-N9	-5.96	103.43	108.20
1	A	1031	C	C4-C5-C6	5.96	120.38	117.40
1	A	457	G	N3-C4-N9	5.96	129.57	126.00
1	A	649	U	N1-C2-O2	5.96	126.97	122.80
1	A	1060	U	C5-C6-N1	-5.96	119.72	122.70
1	A	2533	U	N3-C2-O2	-5.96	118.03	122.20
1	A	2901	U	C5'-C4'-O4'	5.96	116.25	109.10
1	A	526	A	C4-C5-C6	5.96	119.98	117.00
1	A	539	G	C5-C6-N1	5.96	114.48	111.50
1	A	2450	U	N1-C2-N3	5.96	118.47	114.90
1	A	2661	A	P-O3'-C3'	5.96	126.85	119.70
1	A	2733	A	N9-C4-C5	-5.96	103.42	105.80
1	A	200	A	O5'-P-OP2	5.95	117.84	110.70
1	A	519	G	C2-N3-C4	-5.95	108.92	111.90
1	A	665	G	C4-N9-C1'	5.95	134.24	126.50
1	A	523	A	C4-C5-C6	-5.95	114.02	117.00
1	A	664	G	C5-C6-O6	-5.95	125.03	128.60
1	A	1187	A	C3'-C2'-C1'	5.95	106.26	101.50
1	A	1683	U	N3-C4-C5	5.95	118.17	114.60
1	A	2097	G	N1-C2-N3	5.95	127.47	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2857	A	O5'-P-OP2	-5.95	100.34	105.70
1	A	521	U	C5-C6-N1	5.95	125.67	122.70
1	A	987	U	OP2-P-O3'	-5.95	92.11	105.20
1	A	2651	G	N3-C2-N2	-5.95	115.74	119.90
1	A	350	G	N1-C2-N2	5.95	121.55	116.20
1	A	505	U	C5-C4-O4	5.95	129.47	125.90
1	A	1744	A	N9-C4-C5	-5.95	103.42	105.80
1	A	2094	G	OP1-P-OP2	5.95	128.52	119.60
1	A	2845	G	C5-C6-N1	-5.95	108.53	111.50
1	A	2887	G	C4-C5-N7	-5.95	108.42	110.80
31	a	38	U	N1-C2-O2	5.95	126.96	122.80
31	a	819	C	C4-C5-C6	5.95	120.37	117.40
1	A	223	G	N1-C6-O6	-5.94	116.33	119.90
1	A	298	U	C2-N1-C1'	-5.94	110.57	117.70
1	A	964	U	C2-N3-C4	-5.94	123.43	127.00
1	A	1015	C	C6-N1-C1'	-5.94	113.67	120.80
1	A	1268	C	OP1-P-OP2	-5.94	110.68	119.60
1	A	1355	A	C6-N1-C2	5.94	122.17	118.60
1	A	2454	C	C4-C5-C6	5.94	120.37	117.40
31	a	659	C	C6-N1-C2	-5.94	117.92	120.30
1	A	613	G	O5'-P-OP2	5.94	117.83	110.70
1	A	2527	U	C4-C5-C6	-5.94	116.14	119.70
1	A	1022	G	N7-C8-N9	5.94	116.07	113.10
1	A	1490	G	N1-C2-N2	-5.94	110.85	116.20
1	A	2040	A	C2-N3-C4	5.94	113.57	110.60
1	A	2077	C	OP2-P-O3'	-5.94	92.13	105.20
1	A	28	A	N9-C4-C5	5.94	108.18	105.80
1	A	344	U	C6-N1-C2	-5.94	117.44	121.00
1	A	623	C	C2-N1-C1'	5.94	125.33	118.80
1	A	656	G	N9-C4-C5	-5.94	103.03	105.40
1	A	1415	A	C5-C6-N1	5.94	120.67	117.70
1	A	2567	C	C5-C4-N4	5.94	124.36	120.20
1	A	27	G	C4-N9-C1'	5.94	134.22	126.50
1	A	625	G	N1-C2-N2	-5.94	110.86	116.20
1	A	815	G	C5-C6-N1	5.94	114.47	111.50
1	A	895	U	C2-N1-C1'	5.94	124.82	117.70
1	A	1028	G	C4'-C3'-O3'	5.94	124.87	113.00
31	a	1465	G	N3-C4-N9	5.94	129.56	126.00
1	A	36	G	C5'-C4'-C3'	5.93	125.49	116.00
1	A	223	G	O4'-C1'-N9	5.93	112.95	108.20
1	A	972	A	N1-C2-N3	-5.93	126.33	129.30
1	A	1958	U	N1-C2-O2	5.93	126.95	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2899	A	C2-N3-C4	5.93	113.57	110.60
1	A	85	G	N9-C4-C5	-5.93	103.03	105.40
1	A	648	G	N9-C1'-C2'	-5.93	105.47	112.00
1	A	989	A	OP1-P-O3'	-5.93	92.15	105.20
1	A	1169	G	C4-N9-C1'	-5.93	118.79	126.50
1	A	1814	A	C8-N9-C4	-5.93	103.43	105.80
1	A	1818	A	N1-C2-N3	-5.93	126.33	129.30
31	a	1063	U	N3-C2-O2	-5.93	118.05	122.20
31	a	1414	C	C6-N1-C2	-5.93	117.93	120.30
1	A	221	G	N1-C2-N3	5.93	127.46	123.90
1	A	1846	A	C8-N9-C4	5.93	108.17	105.80
1	A	2762	G	C6-C5-N7	5.93	133.96	130.40
1	A	366	G	C6-N1-C2	5.93	128.66	125.10
1	A	420	A	N1-C6-N6	5.93	122.16	118.60
1	A	635	G	C8-N9-C4	-5.93	104.03	106.40
1	A	911	A	C4-N9-C1'	5.93	136.97	126.30
1	A	978	A	C8-N9-C4	5.93	108.17	105.80
31	a	778	C	C6-N1-C2	-5.93	117.93	120.30
1	A	2707	C	O5'-P-OP1	-5.93	100.37	105.70
1	A	1074	G	C6-N1-C2	-5.92	121.55	125.10
1	A	1796	A	C8-N9-C4	-5.92	103.43	105.80
1	A	1798	C	C4-C5-C6	-5.92	114.44	117.40
1	A	2652	G	C6-N1-C2	-5.92	121.55	125.10
1	A	2525	C	P-O5'-C5'	-5.92	111.42	120.90
1	A	169	G	C5-C6-O6	-5.92	125.05	128.60
1	A	255	G	C6-C5-N7	-5.92	126.85	130.40
1	A	348	C	N1-C2-O2	5.92	122.45	118.90
1	A	421	C	C4-C5-C6	-5.92	114.44	117.40
1	A	688	A	N7-C8-N9	5.92	116.76	113.80
1	A	1712	A	C2-N3-C4	5.92	113.56	110.60
1	A	590	U	N3-C4-O4	-5.92	115.26	119.40
1	A	1009	C	N3-C2-O2	-5.92	117.76	121.90
1	A	1348	U	N1-C2-N3	5.92	118.45	114.90
1	A	1389	U	C6-N1-C2	-5.92	117.45	121.00
1	A	1430	A	C4-C5-C6	-5.92	114.04	117.00
1	A	1487	G	C5-C6-N1	5.92	114.46	111.50
1	A	1616	A	C4-C5-C6	-5.92	114.04	117.00
1	A	2044	C	N1-C1'-C2'	5.92	121.69	114.00
1	A	2690	G	N9-C4-C5	-5.92	103.03	105.40
1	A	1299	U	N1-C2-N3	5.92	118.45	114.90
1	A	1459	A	C4-C5-N7	5.92	113.66	110.70
1	A	2057	A	N9-C1'-C2'	5.92	121.69	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	423	A	C5-C6-N6	5.92	128.43	123.70
1	A	469	A	OP1-P-O3'	5.92	118.21	105.20
1	A	2397	G	N1-C6-O6	-5.92	116.35	119.90
1	A	211	C	C5'-C4'-O4'	-5.91	102.00	109.10
1	A	646	A	C6-C5-N7	5.91	136.44	132.30
1	A	1322	G	N9-C4-C5	-5.91	103.03	105.40
1	A	1374	G	OP2-P-O3'	5.91	118.21	105.20
1	A	673	G	N1-C6-O6	-5.91	116.35	119.90
1	A	2419	A	C8-N9-C4	-5.91	103.44	105.80
1	A	1019	A	C4-N9-C1'	5.91	136.94	126.30
1	A	2061	U	N3-C4-O4	5.91	123.54	119.40
1	A	2531	U	N3-C2-O2	-5.91	118.06	122.20
31	a	1041	C	OP1-P-O3'	5.91	118.20	105.20
1	A	2283	G	N3-C2-N2	5.91	124.04	119.90
1	A	600	U	C2-N3-C4	5.91	130.54	127.00
1	A	1252	A	C4-C5-N7	5.91	113.65	110.70
1	A	326	A	C2-N3-C4	5.91	113.55	110.60
1	A	441	C	C6-N1-C2	-5.91	117.94	120.30
1	A	1333	A	C6-N1-C2	-5.91	115.06	118.60
1	A	2386	C	C2-N3-C4	-5.91	116.95	119.90
1	A	2455	G	OP1-P-O3'	-5.91	92.21	105.20
1	A	958	U	C4-C5-C6	5.90	123.24	119.70
1	A	2309	G	C8-N9-C1'	5.90	134.68	127.00
1	A	2619	G	C4-C5-N7	5.90	113.16	110.80
1	A	2647	C	O5'-C5'-C4'	5.90	122.92	111.70
1	A	2791	A	N3-C4-N9	-5.90	122.68	127.40
2	B	86	A	C8-N9-C4	-5.90	103.44	105.80
1	A	408	U	C2-N1-C1'	5.90	124.78	117.70
1	A	2084	G	N3-C4-C5	-5.90	125.65	128.60
20	T	63	LEU	CA-CB-CG	5.90	128.88	115.30
31	a	454	G	C4-N9-C1'	5.90	134.17	126.50
1	A	182	C	O5'-P-OP2	-5.90	100.39	105.70
1	A	1284	A	C6-C5-N7	5.90	136.43	132.30
1	A	2081	A	C5-C6-N6	5.90	128.42	123.70
1	A	2854	A	N1-C6-N6	-5.90	115.06	118.60
1	A	376	A	C4-C5-C6	-5.90	114.05	117.00
1	A	1490	G	O4'-C1'-N9	5.90	112.92	108.20
1	A	2639	C	N3-C2-O2	-5.90	117.77	121.90
31	a	1173	G	C6-C5-N7	-5.90	126.86	130.40
1	A	543	G	C5-C6-N1	-5.90	108.55	111.50
1	A	975	U	C6-N1-C1'	5.90	129.46	121.20
1	A	1270	U	C6-N1-C1'	-5.90	112.94	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1682	C	N1-C2-N3	5.90	123.33	119.20
1	A	2362	A	N1-C2-N3	-5.90	126.35	129.30
31	a	454	G	C6-C5-N7	-5.90	126.86	130.40
1	A	557	G	O5'-P-OP2	5.90	117.78	110.70
31	a	163	C	N1-C2-O2	5.90	122.44	118.90
1	A	557	G	N1-C2-N2	-5.89	110.90	116.20
1	A	974	U	O5'-P-OP2	-5.89	100.39	105.70
1	A	978	A	OP2-P-O3'	5.89	118.17	105.20
1	A	1013	U	O5'-P-OP2	-5.89	100.39	105.70
1	A	1778	C	N3-C4-C5	5.89	124.26	121.90
1	A	2550	G	N1-C2-N3	5.89	127.44	123.90
1	A	2906	G	C4-C5-N7	5.89	113.16	110.80
31	a	1419	C	C6-N1-C2	-5.89	117.94	120.30
1	A	635	G	N3-C2-N2	-5.89	115.78	119.90
1	A	1045	A	OP2-P-O3'	-5.89	92.24	105.20
1	A	2321	C	C2-N1-C1'	5.89	125.28	118.80
1	A	2472	G	C8-N9-C1'	5.89	134.66	127.00
1	A	643	G	C5'-C4'-O4'	5.89	116.17	109.10
1	A	872	U	P-O5'-C5'	5.89	130.32	120.90
1	A	2583	C	C5-C6-N1	5.89	123.94	121.00
1	A	2587	C	N3-C4-C5	5.89	124.26	121.90
1	A	599	A	C5-N7-C8	5.89	106.84	103.90
1	A	640	G	C2-N3-C4	-5.89	108.96	111.90
1	A	2675	G	O4'-C1'-N9	5.89	112.91	108.20
1	A	539	G	N1-C6-O6	-5.89	116.37	119.90
1	A	2097	G	C6-N1-C2	-5.89	121.57	125.10
1	A	2454	C	N1-C1'-C2'	5.89	121.65	114.00
31	a	1465	G	C5-C6-O6	-5.89	125.07	128.60
1	A	889	U	N3-C4-O4	5.88	123.52	119.40
1	A	1040	A	C6-N1-C2	5.88	122.13	118.60
1	A	901	G	C6-N1-C2	-5.88	121.57	125.10
1	A	2313	A	O5'-P-OP2	-5.88	100.41	105.70
1	A	2483	C	N1-C2-N3	5.88	123.32	119.20
1	A	634	C	N1-C2-N3	5.88	123.32	119.20
1	A	1360	G	N9-C4-C5	5.88	107.75	105.40
31	a	1389	G	C2-N3-C4	5.88	114.84	111.90
1	A	423	A	C4-C5-N7	-5.88	107.76	110.70
1	A	493	A	P-O3'-C3'	-5.88	112.64	119.70
1	A	2270	U	N1-C2-O2	5.88	126.92	122.80
1	A	2694	C	C5-C4-N4	-5.88	116.08	120.20
31	a	162	A	C2-N3-C4	5.88	113.54	110.60
1	A	955	A	OP1-P-OP2	-5.88	110.78	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1071	A	C2-N3-C4	5.88	113.54	110.60
1	A	1804	U	C6-N1-C2	-5.88	117.47	121.00
1	A	2021	C	N3-C2-O2	-5.88	117.78	121.90
1	A	2095	U	C5-C6-N1	-5.88	119.76	122.70
31	a	416	G	N7-C8-N9	5.88	116.04	113.10
31	a	1428	A	N3-C4-N9	-5.88	122.70	127.40
1	A	485	A	C5-C6-N6	-5.88	119.00	123.70
1	A	1607	A	N3-C4-N9	5.88	132.10	127.40
1	A	1684	A	C8-N9-C4	-5.88	103.45	105.80
1	A	2586	C	N3-C4-C5	5.88	124.25	121.90
1	A	849	A	N3-C4-C5	5.88	130.91	126.80
1	A	1072	A	C6-N1-C2	-5.88	115.08	118.60
31	a	530	C	C2-N1-C1'	5.88	125.26	118.80
1	A	461	A	C6-C5-N7	-5.87	128.19	132.30
1	A	1842	A	C8-N9-C4	5.87	108.15	105.80
1	A	2792	A	C6-C5-N7	-5.87	128.19	132.30
31	a	405	A	C2-N3-C4	5.87	113.54	110.60
1	A	16	G	N1-C6-O6	-5.87	116.38	119.90
2	B	80	G	C5-C6-N1	5.87	114.44	111.50
1	A	236	A	C6-N1-C2	-5.87	115.08	118.60
1	A	341	G	OP1-P-O3'	5.87	118.11	105.20
1	A	1308	C	C2-N1-C1'	-5.87	112.34	118.80
1	A	2025	A	N7-C8-N9	5.87	116.73	113.80
1	A	1403	C	N3-C2-O2	-5.87	117.79	121.90
1	A	1744	A	C4-C5-N7	5.87	113.63	110.70
1	A	2073	G	C6-N1-C2	-5.87	121.58	125.10
31	a	69	G	C4-N9-C1'	5.87	134.13	126.50
1	A	12	U	C2-N1-C1'	5.87	124.74	117.70
1	A	1017	A	C4-N9-C1'	5.87	136.86	126.30
1	A	2639	C	C6-N1-C1'	5.87	127.84	120.80
1	A	2840	A	OP1-P-O3'	5.87	118.11	105.20
31	a	1473	C	N1-C2-O2	5.87	122.42	118.90
1	A	847	A	N9-C4-C5	-5.87	103.45	105.80
1	A	986	G	C5-N7-C8	-5.87	101.37	104.30
1	A	1079	U	N3-C4-O4	5.87	123.51	119.40
1	A	2654	G	OP1-P-OP2	-5.87	110.80	119.60
1	A	2684	A	C5-N7-C8	-5.87	100.97	103.90
1	A	2712	G	N1-C6-O6	-5.87	116.38	119.90
1	A	297	G	N3-C4-C5	-5.86	125.67	128.60
1	A	1303	A	N1-C6-N6	-5.86	115.08	118.60
1	A	2658	G	N3-C2-N2	-5.86	115.80	119.90
31	a	1063	U	N1-C2-O2	5.86	126.90	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	a	1075	G	P-O3'-C3'	5.86	126.73	119.70
1	A	52	A	OP1-P-O3'	5.86	118.10	105.20
1	A	200	A	C8-N9-C1'	-5.86	117.15	127.70
1	A	621	A	N3-C4-N9	-5.86	122.71	127.40
1	A	2224	U	N3-C2-O2	-5.86	118.10	122.20
1	A	53	A	N1-C6-N6	-5.86	115.08	118.60
1	A	1072	A	C8-N9-C1'	-5.86	117.15	127.70
1	A	1807	A	C5-C6-N1	5.86	120.63	117.70
1	A	2629	A	C2-N3-C4	5.86	113.53	110.60
31	a	504	G	N3-C4-C5	-5.86	125.67	128.60
1	A	226	A	N3-C4-N9	-5.86	122.71	127.40
1	A	268	A	OP1-P-O3'	5.86	118.09	105.20
1	A	669	C	O5'-P-OP1	5.86	117.73	110.70
1	A	1784	U	C2-N3-C4	-5.86	123.48	127.00
1	A	2051	C	OP2-P-O3'	5.86	118.08	105.20
1	A	2521	G	N3-C2-N2	5.86	124.00	119.90
1	A	2843	A	N9-C4-C5	-5.86	103.46	105.80
1	A	1247	G	C4-N9-C1'	-5.86	118.89	126.50
1	A	1434	U	N3-C2-O2	-5.86	118.10	122.20
1	A	2380	G	N3-C4-N9	5.86	129.51	126.00
1	A	2474	G	OP1-P-OP2	-5.86	110.82	119.60
1	A	973	A	C6-C5-N7	-5.85	128.20	132.30
1	A	2045	A	C1'-O4'-C4'	-5.85	105.22	109.90
1	A	2045	A	O4'-C1'-N9	5.85	112.88	108.20
1	A	2307	G	C2-N3-C4	5.85	114.83	111.90
1	A	2477	A	C5-N7-C8	-5.85	100.97	103.90
1	A	338	G	C4-N9-C1'	5.85	134.11	126.50
1	A	1272	U	C4-C5-C6	5.85	123.21	119.70
1	A	2814	C	C6-N1-C1'	5.85	127.82	120.80
1	A	560	A	N1-C6-N6	-5.85	115.09	118.60
31	a	216	G	C4-N9-C1'	5.85	134.11	126.50
1	A	356	A	N9-C4-C5	-5.85	103.46	105.80
1	A	594	G	N1-C2-N3	5.85	127.41	123.90
1	A	622	A	N9-C4-C5	-5.85	103.46	105.80
1	A	1019	A	O5'-P-OP2	5.85	117.72	110.70
1	A	1055	A	N1-C6-N6	5.85	122.11	118.60
1	A	2851	G	N7-C8-N9	5.85	116.03	113.10
31	a	431	G	C8-N9-C1'	-5.85	119.40	127.00
31	a	645	U	N1-C2-O2	5.85	126.89	122.80
1	A	1180	G	C5-C6-N1	5.85	114.42	111.50
1	A	1797	G	C8-N9-C4	-5.85	104.06	106.40
1	A	2714	U	N3-C2-O2	-5.85	118.11	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	a	1212	U	C2-N1-C1'	5.85	124.72	117.70
1	A	117	A	C6-N1-C2	-5.85	115.09	118.60
1	A	1083	G	C4-C5-C6	5.85	122.31	118.80
1	A	485	A	C4-C5-N7	5.84	113.62	110.70
1	A	2044	C	OP1-P-O3'	5.84	118.06	105.20
31	a	587	G	N3-C4-N9	5.84	129.51	126.00
1	A	498	G	N1-C2-N2	-5.84	110.94	116.20
1	A	114	C	C6-N1-C2	-5.84	117.96	120.30
1	A	189	G	N1-C6-O6	-5.84	116.40	119.90
1	A	1240	U	C5'-C4'-O4'	-5.84	102.09	109.10
1	A	2032	A	C2-N3-C4	-5.84	107.68	110.60
1	A	2088	G	N1-C2-N3	5.84	127.41	123.90
1	A	2907	A	C5-C6-N1	5.84	120.62	117.70
31	a	10	G	N3-C4-N9	5.84	129.50	126.00
31	a	498	U	N1-C2-O2	5.84	126.89	122.80
1	A	65	A	N9-C4-C5	-5.84	103.46	105.80
1	A	104	C	C5-C6-N1	5.84	123.92	121.00
1	A	1035	C	P-O5'-C5'	-5.84	111.56	120.90
1	A	1186	A	C5-N7-C8	5.84	106.82	103.90
1	A	1359	A	N7-C8-N9	5.84	116.72	113.80
1	A	2224	U	C6-N1-C1'	-5.84	113.02	121.20
1	A	2253	C	N3-C2-O2	-5.84	117.81	121.90
1	A	347	U	C2-N3-C4	-5.84	123.50	127.00
1	A	666	A	C4-N9-C1'	5.84	136.81	126.30
1	A	2636	U	C6-N1-C2	-5.84	117.50	121.00
1	A	835	U	C5-C6-N1	5.84	125.62	122.70
1	A	1180	G	OP1-P-OP2	-5.84	110.84	119.60
1	A	1200	A	C5-C6-N6	-5.84	119.03	123.70
1	A	2086	A	C4-C5-N7	5.84	113.62	110.70
31	a	707	C	N1-C2-O2	5.84	122.40	118.90
31	a	809	U	N1-C2-O2	5.84	126.89	122.80
1	A	408	U	N1-C2-O2	5.83	126.88	122.80
1	A	548	A	C4-C5-C6	5.83	119.92	117.00
1	A	1767	G	N9-C4-C5	-5.83	103.07	105.40
1	A	1003	A	C4-C5-C6	-5.83	114.08	117.00
1	A	1667	G	C5-N7-C8	-5.83	101.38	104.30
1	A	398	C	C2-N3-C4	5.83	122.81	119.90
1	A	583	A	C5-C6-N6	5.83	128.37	123.70
1	A	1282	A	C4-C5-N7	-5.83	107.78	110.70
1	A	1711	G	N9-C4-C5	5.83	107.73	105.40
1	A	2290	C	N3-C2-O2	-5.83	117.82	121.90
1	A	337	A	N7-C8-N9	5.83	116.72	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1268	C	O5'-P-OP2	5.83	117.70	110.70
2	B	79	C	N3-C2-O2	-5.83	117.82	121.90
1	A	1270	U	N3-C2-O2	-5.83	118.12	122.20
1	A	1288	G	C1'-O4'-C4'	-5.83	105.24	109.90
1	A	1814	A	N1-C6-N6	-5.83	115.10	118.60
1	A	2677	C	C6-N1-C2	-5.83	117.97	120.30
1	A	2684	A	N7-C8-N9	5.83	116.71	113.80
1	A	89	U	C6-N1-C2	-5.83	117.50	121.00
1	A	459	C	N1-C2-N3	-5.83	115.12	119.20
1	A	757	G	C8-N9-C1'	-5.83	119.42	127.00
1	A	1039	C	C2-N1-C1'	5.83	125.21	118.80
1	A	2363	A	OP1-P-O3'	-5.83	92.38	105.20
1	A	2752	A	C2-N3-C4	5.83	113.51	110.60
31	a	504	G	N3-C4-N9	5.83	129.50	126.00
1	A	668	C	C4-C5-C6	-5.82	114.49	117.40
1	A	2392	G	N3-C4-N9	5.82	129.49	126.00
31	a	18	U	N3-C2-O2	-5.82	118.12	122.20
1	A	383	A	N9-C4-C5	5.82	108.13	105.80
1	A	858	U	O5'-P-OP2	-5.82	100.46	105.70
1	A	1710	G	C2-N3-C4	5.82	114.81	111.90
1	A	2677	C	C5-C6-N1	5.82	123.91	121.00
1	A	973	A	N7-C8-N9	5.82	116.71	113.80
1	A	1185	U	N1-C1'-C2'	5.82	121.56	114.00
1	A	2039	G	N1-C6-O6	-5.82	116.41	119.90
31	a	355	G	C4-C5-N7	5.82	113.13	110.80
1	A	365	A	C5-N7-C8	-5.82	100.99	103.90
1	A	651	A	N9-C4-C5	-5.82	103.47	105.80
1	A	854	G	C2-N3-C4	5.82	114.81	111.90
1	A	961	G	N3-C4-N9	5.82	129.49	126.00
1	A	1692	C	C5'-C4'-O4'	5.82	116.08	109.10
1	A	1767	G	C4-C5-N7	5.82	113.13	110.80
1	A	2036	G	C5-N7-C8	-5.82	101.39	104.30
1	A	2097	G	N3-C2-N2	-5.82	115.83	119.90
1	A	2528	C	N3-C4-C5	5.82	124.23	121.90
31	a	311	G	C5-N7-C8	-5.82	101.39	104.30
1	A	208	G	C8-N9-C4	-5.82	104.07	106.40
1	A	822	G	C6-N1-C2	-5.82	121.61	125.10
1	A	902	A	N3-C4-N9	5.82	132.05	127.40
1	A	1275	A	C2-N3-C4	5.82	113.51	110.60
1	A	493	A	O5'-P-OP1	-5.81	100.47	105.70
1	A	1972	G	C4-C5-N7	5.81	113.12	110.80
2	B	94	C	C6-N1-C2	-5.81	117.97	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1356	G	N7-C8-N9	-5.81	110.19	113.10
1	A	2516	G	N1-C2-N3	-5.81	120.41	123.90
1	A	58	G	N3-C2-N2	5.81	123.97	119.90
1	A	583	A	C5'-C4'-C3'	5.81	125.29	116.00
1	A	640	G	C6-N1-C2	-5.81	121.61	125.10
1	A	1008	C	OP2-P-O3'	5.81	117.98	105.20
1	A	1068	G	C6-N1-C2	-5.81	121.61	125.10
1	A	1288	G	O5'-P-OP1	-5.81	100.47	105.70
1	A	2455	G	OP1-P-OP2	5.81	128.31	119.60
1	A	121	G	N9-C4-C5	5.81	107.72	105.40
1	A	1015	C	P-O3'-C3'	5.81	126.67	119.70
1	A	1699	A	C4-C5-C6	-5.81	114.10	117.00
38	h	60	LEU	CA-CB-CG	5.81	128.66	115.30
1	A	497	U	C2-N1-C1'	-5.81	110.73	117.70
1	A	522	G	C4-C5-N7	-5.81	108.48	110.80
1	A	558	A	C5'-C4'-O4'	5.81	116.07	109.10
1	A	581	A	N1-C2-N3	-5.81	126.40	129.30
1	A	2805	A	OP1-P-O3'	5.81	117.97	105.20
1	A	954	A	C5'-C4'-O4'	5.80	116.06	109.10
1	A	2011	U	C5-C6-N1	-5.80	119.80	122.70
1	A	2722	U	N3-C2-O2	-5.80	118.14	122.20
1	A	500	A	OP2-P-O3'	5.80	117.97	105.20
1	A	1078	G	N3-C2-N2	-5.80	115.84	119.90
1	A	1481	A	N1-C6-N6	5.80	122.08	118.60
1	A	2644	C	C5'-C4'-O4'	5.80	116.06	109.10
1	A	9	U	C5-C4-O4	-5.80	122.42	125.90
1	A	707	G	OP2-P-O3'	-5.80	92.44	105.20
1	A	227	G	OP1-P-OP2	-5.80	110.90	119.60
1	A	294	G	N9-C4-C5	5.80	107.72	105.40
1	A	962	A	N3-C4-N9	5.80	132.04	127.40
1	A	1357	G	C8-N9-C4	-5.80	104.08	106.40
1	A	2887	G	C5-C6-O6	5.80	132.08	128.60
1	A	2492	C	C2-N1-C1'	5.80	125.18	118.80
31	a	1202	C	C6-N1-C2	-5.80	117.98	120.30
1	A	352	A	N3-C4-C5	-5.80	122.74	126.80
1	A	663	U	N3-C2-O2	-5.80	118.14	122.20
1	A	853	G	C5-N7-C8	-5.80	101.40	104.30
1	A	1014	U	C5'-C4'-O4'	-5.80	102.14	109.10
1	A	2596	G	C5-C6-O6	5.80	132.08	128.60
1	A	2648	G	C6-C5-N7	5.80	133.88	130.40
31	a	1451	G	C8-N9-C1'	-5.80	119.46	127.00
1	A	911	A	C8-N9-C1'	-5.79	117.27	127.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2576	G	C6-N1-C2	-5.79	121.62	125.10
1	A	380	U	C5-C4-O4	5.79	129.38	125.90
1	A	1037	A	C2-N3-C4	5.79	113.50	110.60
1	A	1667	G	C4-C5-N7	5.79	113.12	110.80
1	A	2510	C	C6-N1-C2	-5.79	117.98	120.30
1	A	2887	G	N1-C2-N3	5.79	127.38	123.90
31	a	173	U	N1-C2-O2	5.79	126.85	122.80
31	a	454	G	C4-C5-N7	5.79	113.12	110.80
1	A	594	G	C2-N3-C4	-5.79	109.00	111.90
1	A	596	G	N7-C8-N9	5.79	116.00	113.10
1	A	1322	G	C8-N9-C1'	-5.79	119.47	127.00
1	A	2889	G	C6-N1-C2	-5.79	121.63	125.10
1	A	902	A	C2-N3-C4	5.79	113.50	110.60
1	A	961	G	N9-C1'-C2'	5.79	121.52	114.00
1	A	1062	U	C2-N1-C1'	5.79	124.65	117.70
1	A	584	G	O5'-P-OP1	-5.79	100.49	105.70
1	A	624	C	C5-C6-N1	-5.79	118.11	121.00
1	A	835	U	C6-N1-C1'	-5.79	113.10	121.20
1	A	1549	C	N1-C2-O2	5.79	122.37	118.90
1	A	2391	C	C5-C4-N4	-5.79	116.15	120.20
1	A	300	G	N3-C4-N9	-5.79	122.53	126.00
1	A	2649	U	N3-C4-C5	5.79	118.07	114.60
2	B	85	U	O4'-C1'-N1	5.79	112.83	108.20
1	A	538	G	N1-C2-N3	5.78	127.37	123.90
1	A	2018	U	C6-N1-C2	-5.78	117.53	121.00
1	A	2241	C	N1-C2-O2	5.78	122.37	118.90
1	A	2411	A	C6-C5-N7	-5.78	128.25	132.30
1	A	2805	A	N3-C4-C5	-5.78	122.75	126.80
31	a	853	C	P-O3'-C3'	5.78	126.64	119.70
1	A	592	A	C5-N7-C8	-5.78	101.01	103.90
1	A	1255	A	C5-N7-C8	-5.78	101.01	103.90
1	A	2062	G	N1-C2-N2	-5.78	111.00	116.20
1	A	2901	U	N1-C2-O2	5.78	126.85	122.80
1	A	991	A	N1-C2-N3	-5.78	126.41	129.30
1	A	1022	G	C4-C5-C6	-5.78	115.33	118.80
1	A	1177	A	C6-N1-C2	5.78	122.07	118.60
1	A	1691	G	C6-C5-N7	5.78	133.87	130.40
1	A	2355	A	N7-C8-N9	5.78	116.69	113.80
1	A	2896	A	O5'-P-OP1	-5.78	100.50	105.70
1	A	48	G	C2-N3-C4	5.78	114.79	111.90
1	A	1815	C	N1-C2-N3	5.78	123.25	119.20
1	A	2062	G	C5-C6-N1	-5.78	108.61	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2082	C	C2'-C3'-O3'	5.78	122.95	113.70
1	A	2906	G	N9-C4-C5	-5.78	103.09	105.40
1	A	450	C	C6-N1-C2	5.78	122.61	120.30
1	A	605	U	OP2-P-O3'	5.78	117.91	105.20
1	A	1279	C	C6-N1-C2	-5.78	117.99	120.30
1	A	1363	U	C4-C5-C6	-5.78	116.23	119.70
31	a	721	G	C4-C5-N7	5.78	113.11	110.80
1	A	627	C	P-O5'-C5'	5.78	130.14	120.90
1	A	1974	C	C6-N1-C2	-5.78	117.99	120.30
1	A	2510	C	N3-C4-C5	5.78	124.21	121.90
1	A	2830	A	N3-C4-N9	-5.78	122.78	127.40
1	A	265	A	N3-C4-N9	-5.77	122.78	127.40
1	A	1055	A	N3-C4-N9	-5.77	122.78	127.40
1	A	1300	G	N1-C6-O6	-5.77	116.44	119.90
1	A	1798	C	N3-C4-C5	5.77	124.21	121.90
1	A	2346	U	N1-C2-O2	5.77	126.84	122.80
1	A	1756	U	O4'-C1'-N1	5.77	112.82	108.20
1	A	1816	A	N1-C6-N6	5.77	122.06	118.60
1	A	2391	C	OP1-P-OP2	-5.77	110.94	119.60
1	A	2475	A	OP1-P-OP2	-5.77	110.94	119.60
1	A	2855	A	C5-N7-C8	-5.77	101.02	103.90
48	r	60	LEU	CA-CB-CG	5.77	128.57	115.30
1	A	483	C	C5-C6-N1	-5.77	118.12	121.00
1	A	601	G	C5-N7-C8	-5.77	101.42	104.30
1	A	2529	G	N7-C8-N9	5.77	115.98	113.10
31	a	707	C	C5-C6-N1	5.77	123.88	121.00
1	A	169	G	C4-C5-N7	5.77	113.11	110.80
1	A	468	A	C4-N9-C1'	5.77	136.68	126.30
1	A	820	G	C2-N3-C4	5.77	114.78	111.90
1	A	176	A	C8-N9-C1'	-5.76	117.32	127.70
1	A	562	C	O5'-P-OP1	-5.76	100.51	105.70
1	A	903	G	C4-C5-N7	-5.76	108.50	110.80
1	A	1647	A	C2-N3-C4	5.76	113.48	110.60
1	A	2655	U	OP1-P-OP2	-5.76	110.95	119.60
31	a	412	G	N3-C4-C5	-5.76	125.72	128.60
1	A	708	G	C6-N1-C2	-5.76	121.64	125.10
1	A	2308	C	C2-N3-C4	-5.76	117.02	119.90
2	B	63	U	N3-C2-O2	-5.76	118.17	122.20
1	A	94	A	C4-C5-N7	5.76	113.58	110.70
1	A	504	G	C6-C5-N7	5.76	133.86	130.40
1	A	1714	C	C5-C6-N1	5.76	123.88	121.00
1	A	2319	U	N3-C4-C5	-5.76	111.14	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2476	U	C5-C6-N1	-5.76	119.82	122.70
31	a	1077	C	N1-C2-O2	5.76	122.36	118.90
1	A	555	C	C2-N1-C1'	5.76	125.14	118.80
1	A	864	A	C2-N3-C4	5.76	113.48	110.60
1	A	883	C	O5'-C5'-C4'	-5.76	100.76	111.70
1	A	1055	A	C5-N7-C8	-5.76	101.02	103.90
1	A	1222	A	C2-N3-C4	5.76	113.48	110.60
1	A	1224	U	C5'-C4'-O4'	-5.76	102.19	109.10
1	A	1261	G	N3-C2-N2	5.76	123.93	119.90
1	A	1373	U	C2-N1-C1'	-5.76	110.79	117.70
31	a	988	C	C2-N1-C1'	5.76	125.14	118.80
1	A	200	A	C4-C5-N7	5.76	113.58	110.70
1	A	649	U	P-O3'-C3'	5.76	126.61	119.70
1	A	2229	C	C2-N1-C1'	5.76	125.13	118.80
1	A	2275	C	C5-C4-N4	5.76	124.23	120.20
1	A	36	G	N9-C4-C5	-5.76	103.10	105.40
1	A	833	A	O5'-P-OP1	-5.76	100.52	105.70
1	A	2453	A	N9-C1'-C2'	5.76	121.48	114.00
1	A	2845	G	C6-C5-N7	-5.76	126.95	130.40
1	A	2910	G	N3-C2-N2	5.76	123.93	119.90
31	a	675	G	C4-C5-N7	5.76	113.10	110.80
1	A	1319	U	C2-N3-C4	-5.75	123.55	127.00
1	A	2744	G	N3-C4-N9	5.75	129.45	126.00
31	a	1405	C	N1-C2-O2	5.75	122.35	118.90
1	A	352	A	C4-C5-C6	-5.75	114.12	117.00
1	A	989	A	O4'-C1'-N9	-5.75	103.60	108.20
1	A	1804	U	C2-N1-C1'	5.75	124.61	117.70
1	A	2221	U	N1-C2-O2	5.75	126.83	122.80
1	A	2463	G	C5-C6-N1	5.75	114.38	111.50
1	A	8	U	N1-C2-N3	5.75	118.35	114.90
1	A	407	G	N7-C8-N9	5.75	115.98	113.10
1	A	1289	A	C4-C5-C6	-5.75	114.12	117.00
1	A	1672	G	C6-N1-C2	-5.75	121.65	125.10
31	a	233	U	C2-N1-C1'	5.75	124.60	117.70
31	a	815	A	N9-C4-C5	-5.75	103.50	105.80
1	A	71	A	N3-C4-C5	5.75	130.82	126.80
1	A	1372	C	N1-C2-N3	5.75	123.22	119.20
31	a	293	C	C5-C6-N1	5.75	123.88	121.00
31	a	387	C	O4'-C1'-N1	5.75	112.80	108.20
1	A	525	A	OP1-P-O3'	5.75	117.84	105.20
1	A	893	G	OP1-P-O3'	5.75	117.84	105.20
1	A	74	U	C6-N1-C1'	-5.75	113.16	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	518	A	N9-C4-C5	5.75	108.10	105.80
1	A	984	G	C6-C5-N7	-5.75	126.95	130.40
1	A	1018	A	N9-C4-C5	-5.75	103.50	105.80
1	A	1203	U	C5'-C4'-O4'	-5.75	102.21	109.10
1	A	1369	G	OP2-P-O3'	5.75	117.84	105.20
1	A	1613	G	C5-C6-O6	-5.75	125.15	128.60
1	A	1750	U	C2-N3-C4	-5.75	123.55	127.00
31	a	26	C	N1-C2-O2	5.75	122.35	118.90
1	A	235	G	O4'-C1'-N9	-5.74	103.61	108.20
1	A	1705	G	C5-C6-O6	-5.74	125.15	128.60
1	A	2022	U	O5'-P-OP1	-5.74	100.53	105.70
1	A	2863	G	N9-C4-C5	-5.74	103.10	105.40
1	A	212	C	C6-N1-C2	-5.74	118.00	120.30
1	A	1202	C	C4-C5-C6	-5.74	114.53	117.40
1	A	1252	A	O5'-P-OP2	5.74	117.59	110.70
1	A	2669	G	N1-C6-O6	-5.74	116.46	119.90
1	A	2811	U	C4'-C3'-O3'	5.74	124.48	113.00
1	A	667	G	C1'-O4'-C4'	-5.74	105.31	109.90
1	A	997	G	C8-N9-C1'	-5.74	119.54	127.00
1	A	2027	G	C6-N1-C2	-5.74	121.66	125.10
31	a	1187	G	N3-C4-N9	5.74	129.44	126.00
1	A	890	G	N7-C8-N9	5.74	115.97	113.10
1	A	1060	U	N1-C2-O2	5.74	126.82	122.80
1	A	292	U	C6-N1-C2	-5.74	117.56	121.00
1	A	1072	A	C4-C5-N7	-5.74	107.83	110.70
1	A	2442	G	N1-C2-N3	5.74	127.34	123.90
1	A	2616	A	N1-C6-N6	-5.74	115.16	118.60
1	A	14	A	N1-C2-N3	-5.73	126.43	129.30
1	A	2080	G	O4'-C1'-N9	5.73	112.79	108.20
1	A	996	G	N3-C4-N9	-5.73	122.56	126.00
1	A	1356	G	C6-C5-N7	-5.73	126.96	130.40
1	A	227	G	N3-C2-N2	5.73	123.91	119.90
1	A	409	G	O4'-C1'-N9	5.73	112.78	108.20
1	A	1356	G	N1-C2-N2	-5.73	111.04	116.20
31	a	99	U	N3-C4-O4	-5.73	115.39	119.40
31	a	447	U	N1-C2-O2	5.73	126.81	122.80
31	a	988	C	N3-C2-O2	-5.73	117.89	121.90
31	a	1388	C	C6-N1-C2	-5.73	118.01	120.30
1	A	111	U	N3-C2-O2	-5.73	118.19	122.20
1	A	2348	G	C4-C5-N7	5.73	113.09	110.80
1	A	2362	A	O5'-P-OP2	-5.73	100.54	105.70
1	A	23	G	C6-N1-C2	-5.73	121.66	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	819	A	O5'-P-OP1	-5.73	100.55	105.70
1	A	913	U	C2-N1-C1'	5.73	124.57	117.70
1	A	1257	G	C5'-C4'-O4'	5.73	115.97	109.10
1	A	1779	C	N3-C4-C5	5.73	124.19	121.90
1	A	2586	C	C4-C5-C6	-5.73	114.54	117.40
1	A	925	G	C4-C5-N7	5.72	113.09	110.80
1	A	1845	U	O5'-P-OP2	-5.72	100.55	105.70
1	A	2429	U	O4'-C1'-N1	-5.72	103.62	108.20
1	A	445	G	N9-C1'-C2'	5.72	121.44	114.00
1	A	522	G	OP1-P-O3'	5.72	117.79	105.20
1	A	869	G	N1-C6-O6	-5.72	116.47	119.90
1	A	1857	C	C2-N1-C1'	5.72	125.09	118.80
1	A	2238	U	O4'-C1'-N1	5.72	112.78	108.20
1	A	2484	U	C6-N1-C2	-5.72	117.57	121.00
1	A	51	G	N3-C2-N2	5.72	123.91	119.90
1	A	295	G	C5-N7-C8	-5.72	101.44	104.30
1	A	666	A	C6-C5-N7	-5.72	128.30	132.30
1	A	1273	G	N9-C1'-C2'	5.72	121.44	114.00
1	A	2622	G	N9-C4-C5	-5.72	103.11	105.40
1	A	192	G	N1-C6-O6	-5.72	116.47	119.90
1	A	378	C	C2-N3-C4	5.72	122.76	119.90
1	A	1271	G	C6-N1-C2	-5.72	121.67	125.10
1	A	882	C	C6-N1-C2	-5.72	118.01	120.30
1	A	1181	G	N1-C2-N2	-5.72	111.06	116.20
1	A	1257	G	C5-C6-N1	-5.72	108.64	111.50
31	a	245	C	C6-N1-C2	-5.72	118.01	120.30
31	a	722	G	N7-C8-N9	5.72	115.96	113.10
1	A	235	G	OP1-P-O3'	5.71	117.77	105.20
1	A	651	A	C5-C6-N1	5.71	120.56	117.70
1	A	667	G	N1-C2-N3	5.71	127.33	123.90
1	A	702	U	N3-C4-C5	5.71	118.03	114.60
1	A	1230	G	N3-C2-N2	5.71	123.90	119.90
1	A	1789	A	C5-N7-C8	-5.71	101.04	103.90
1	A	2029	G	C5-C6-O6	5.71	132.03	128.60
1	A	1199	A	C5'-C4'-O4'	5.71	115.95	109.10
1	A	2619	G	N9-C4-C5	-5.71	103.11	105.40
1	A	34	U	C6-N1-C2	-5.71	117.57	121.00
1	A	474	A	N3-C4-C5	-5.71	122.80	126.80
31	a	188	U	C5-C6-N1	5.71	125.56	122.70
1	A	323	C	C5-C6-N1	5.71	123.86	121.00
1	A	375	A	N7-C8-N9	5.71	116.65	113.80
1	A	783	G	C8-N9-C4	-5.71	104.12	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1056	U	O4'-C1'-N1	5.71	112.77	108.20
1	A	1065	A	C6-C5-N7	-5.71	128.30	132.30
1	A	1267	A	C4-C5-N7	5.71	113.55	110.70
1	A	1287	U	O4'-C1'-N1	5.71	112.77	108.20
1	A	2452	A	OP1-P-O3'	5.71	117.76	105.20
1	A	2808	A	C8-N9-C4	5.71	108.08	105.80
1	A	355	G	C5-C6-O6	-5.71	125.18	128.60
1	A	1227	U	N1-C1'-C2'	-5.71	105.72	112.00
1	A	1642	C	C6-N1-C2	-5.71	118.02	120.30
2	B	2	C	C2-N3-C4	5.71	122.75	119.90
1	A	1947	C	C5-C6-N1	5.71	123.85	121.00
1	A	2275	C	N1-C2-N3	5.71	123.19	119.20
31	a	1098	G	N9-C4-C5	-5.71	103.12	105.40
1	A	24	G	O4'-C1'-N9	5.70	112.76	108.20
1	A	31	C	N1-C2-N3	5.70	123.19	119.20
1	A	903	G	O5'-P-OP1	-5.70	100.57	105.70
1	A	1016	G	C8-N9-C1'	-5.70	119.59	127.00
1	A	1597	U	N1-C2-O2	5.70	126.79	122.80
1	A	2523	C	C5'-C4'-O4'	5.70	115.94	109.10
1	A	1416	U	C5-C6-N1	5.70	125.55	122.70
1	A	2063	C	N1-C2-O2	5.70	122.32	118.90
1	A	2221	U	C2-N1-C1'	5.70	124.54	117.70
1	A	2551	G	C5-C6-N1	-5.70	108.65	111.50
1	A	2703	C	N1-C2-N3	5.70	123.19	119.20
2	B	2	C	C6-N1-C2	-5.70	118.02	120.30
1	A	353	A	N1-C2-N3	-5.70	126.45	129.30
1	A	530	C	C6-N1-C1'	-5.70	113.96	120.80
1	A	1247	G	C5'-C4'-O4'	5.70	115.94	109.10
1	A	1279	C	O5'-P-OP1	-5.70	100.57	105.70
1	A	1394	U	N1-C2-O2	5.70	126.79	122.80
1	A	1715	U	C2-N3-C4	-5.70	123.58	127.00
1	A	12	U	C5-C4-O4	-5.70	122.48	125.90
1	A	1188	A	N1-C6-N6	5.70	122.02	118.60
1	A	1957	G	C4-N9-C1'	-5.70	119.09	126.50
1	A	365	A	C2-N3-C4	-5.70	107.75	110.60
1	A	1001	A	N9-C4-C5	5.70	108.08	105.80
1	A	1267	A	N7-C8-N9	5.70	116.65	113.80
1	A	1723	A	C8-N9-C4	-5.70	103.52	105.80
1	A	1390	A	N1-C6-N6	-5.70	115.18	118.60
1	A	1473	G	N3-C4-N9	5.70	129.42	126.00
1	A	1608	C	N3-C2-O2	-5.70	117.91	121.90
31	a	96	U	C5-C6-N1	5.70	125.55	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	a	504	G	C4-N9-C1'	5.70	133.90	126.50
1	A	903	G	C4-N9-C1'	5.69	133.90	126.50
1	A	1191	U	O4'-C1'-N1	5.69	112.75	108.20
1	A	2381	A	C4-C5-N7	5.69	113.55	110.70
1	A	2589	U	C2-N1-C1'	5.69	124.53	117.70
1	A	426	G	N3-C4-C5	5.69	131.44	128.60
1	A	735	C	N3-C2-O2	-5.69	117.92	121.90
1	A	1226	G	C5-C6-O6	5.69	132.01	128.60
1	A	2023	C	O3'-P-O5'	5.69	114.81	104.00
1	A	648	G	C5-C6-O6	-5.69	125.19	128.60
1	A	740	G	N1-C6-O6	-5.69	116.49	119.90
1	A	1990	C	C6-N1-C2	-5.69	118.02	120.30
1	A	2622	G	C8-N9-C4	5.69	108.68	106.40
2	B	3	U	C5-C4-O4	-5.69	122.49	125.90
1	A	223	G	N3-C2-N2	5.69	123.88	119.90
1	A	341	G	N9-C1'-C2'	-5.69	105.74	112.00
1	A	485	A	C4-C5-C6	-5.69	114.16	117.00
1	A	1251	A	N9-C4-C5	5.69	108.08	105.80
1	A	2572	G	C5-C6-N1	5.69	114.34	111.50
1	A	2763	G	C4-C5-N7	5.69	113.08	110.80
1	A	2419	A	C8-N9-C1'	-5.68	117.47	127.70
1	A	2544	C	C5-C4-N4	-5.68	116.22	120.20
2	B	84	U	N3-C2-O2	-5.68	118.22	122.20
31	a	255	G	N3-C4-N9	-5.68	122.59	126.00
1	A	1011	U	C4-C5-C6	-5.68	116.29	119.70
1	A	1691	G	N3-C4-C5	5.68	131.44	128.60
1	A	2387	A	C5-C6-N6	-5.68	119.15	123.70
1	A	2667	G	C5-C6-O6	5.68	132.01	128.60
31	a	488	U	N1-C2-O2	5.68	126.78	122.80
1	A	297	G	C6-N1-C2	-5.68	121.69	125.10
1	A	383	A	N1-C2-N3	-5.68	126.46	129.30
1	A	467	U	C2-N1-C1'	5.68	124.51	117.70
1	A	2379	A	C8-N9-C1'	-5.68	117.48	127.70
1	A	2806	U	N3-C4-C5	-5.68	111.19	114.60
31	a	1449	G	O4'-C1'-N9	5.68	112.74	108.20
1	A	613	G	C8-N9-C4	-5.68	104.13	106.40
1	A	1191	U	C6-N1-C2	-5.68	117.59	121.00
1	A	1242	A	N9-C4-C5	5.68	108.07	105.80
1	A	2479	C	P-O5'-C5'	5.68	129.98	120.90
1	A	2520	U	OP1-P-OP2	-5.68	111.08	119.60
1	A	2794	C	O5'-P-OP2	-5.68	100.59	105.70
31	a	542	U	N1-C2-O2	5.68	126.77	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	476	A	C5-C6-N6	5.67	128.24	123.70
1	A	954	A	OP1-P-OP2	-5.67	111.09	119.60
1	A	1175	G	N3-C4-N9	5.67	129.41	126.00
1	A	2067	U	C6-N1-C2	-5.67	117.59	121.00
1	A	1053	A	C4-C5-C6	-5.67	114.16	117.00
1	A	2278	G	N1-C6-O6	-5.67	116.50	119.90
1	A	584	G	C4-C5-N7	-5.67	108.53	110.80
1	A	2616	A	O5'-P-OP2	-5.67	100.59	105.70
31	a	599	U	C2-N1-C1'	5.67	124.51	117.70
1	A	650	U	C4-C5-C6	5.67	123.10	119.70
1	A	2419	A	P-O5'-C5'	5.67	129.97	120.90
1	A	2520	U	C5-C4-O4	5.67	129.30	125.90
1	A	2595	C	N1-C2-O2	5.67	122.30	118.90
1	A	865	A	O5'-P-OP1	5.67	117.50	110.70
1	A	1330	U	N1-C2-N3	5.67	118.30	114.90
1	A	2810	A	N1-C6-N6	-5.67	115.20	118.60
31	a	1100	G	N1-C6-O6	-5.67	116.50	119.90
1	A	513	G	C5-C6-O6	-5.67	125.20	128.60
1	A	873	U	N1-C2-N3	5.67	118.30	114.90
1	A	1069	G	C4-N9-C1'	5.67	133.87	126.50
1	A	1314	A	N1-C6-N6	-5.67	115.20	118.60
1	A	1249	U	C2-N1-C1'	5.67	124.50	117.70
1	A	1289	A	N3-C4-N9	5.67	131.93	127.40
1	A	2085	A	O4'-C1'-N9	5.67	112.73	108.20
1	A	2444	C	C5-C4-N4	-5.67	116.23	120.20
1	A	2766	U	N1-C2-O2	5.67	126.77	122.80
1	A	491	C	C2-N1-C1'	5.66	125.03	118.80
1	A	871	U	C2-N3-C4	-5.66	123.60	127.00
1	A	925	G	C5-C6-O6	-5.66	125.20	128.60
1	A	2887	G	C4-C5-C6	5.66	122.20	118.80
1	A	2910	G	N1-C2-N2	-5.66	111.10	116.20
31	a	1173	G	N7-C8-N9	5.66	115.93	113.10
1	A	1103	G	N1-C2-N2	-5.66	111.10	116.20
1	A	2292	U	N1-C2-N3	5.66	118.30	114.90
31	a	195	C	N1-C2-O2	5.66	122.30	118.90
1	A	293	U	C6-N1-C2	-5.66	117.60	121.00
1	A	734	A	C2-N3-C4	5.66	113.43	110.60
1	A	1036	C	O5'-C5'-C4'	-5.66	100.95	111.70
1	A	1055	A	C4-C5-C6	-5.66	114.17	117.00
1	A	1854	U	N3-C4-C5	5.66	118.00	114.60
1	A	2313	A	C6-C5-N7	5.66	136.26	132.30
31	a	336	C	N3-C2-O2	-5.66	117.94	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	157	U	OP1-P-O3'	5.66	117.65	105.20
1	A	902	A	N1-C2-N3	5.66	132.13	129.30
1	A	1184	C	C5'-C4'-O4'	-5.66	102.31	109.10
1	A	1208	A	C2-N3-C4	5.66	113.43	110.60
1	A	1699	A	N7-C8-N9	-5.66	110.97	113.80
1	A	2445	A	O5'-P-OP1	5.66	117.49	110.70
1	A	2830	A	C6-C5-N7	-5.66	128.34	132.30
1	A	2553	G	C5-C6-N1	5.66	114.33	111.50
1	A	1888	U	N3-C2-O2	-5.66	118.24	122.20
1	A	2514	G	C8-N9-C4	-5.66	104.14	106.40
1	A	2659	A	N1-C2-N3	-5.66	126.47	129.30
1	A	2665	G	C5-N7-C8	-5.66	101.47	104.30
2	B	88	G	N3-C4-C5	-5.66	125.77	128.60
1	A	673	G	C4-C5-N7	5.65	113.06	110.80
1	A	1232	G	C5-N7-C8	-5.65	101.47	104.30
31	a	690	U	C5-C6-N1	5.65	125.53	122.70
31	a	1173	G	C4-C5-N7	5.65	113.06	110.80
1	A	428	G	C2-N3-C4	5.65	114.72	111.90
1	A	479	C	N1-C2-O2	5.65	122.29	118.90
1	A	1944	U	C5-C6-N1	5.65	125.52	122.70
1	A	2056	G	O4'-C1'-N9	-5.65	103.68	108.20
1	A	2474	G	C5-N7-C8	5.65	107.12	104.30
1	A	2669	G	OP1-P-OP2	-5.65	111.13	119.60
1	A	2865	G	N9-C4-C5	-5.65	103.14	105.40
2	B	16	A	N9-C4-C5	-5.65	103.54	105.80
31	a	701	G	C4-N9-C1'	5.65	133.84	126.50
31	a	786	U	N1-C2-O2	5.65	126.75	122.80
31	a	1465	G	N9-C4-C5	-5.65	103.14	105.40
1	A	2811	U	O3'-P-O5'	5.65	114.73	104.00
1	A	2842	G	C5-C6-N1	5.65	114.32	111.50
31	a	267	G	C4-C5-N7	5.65	113.06	110.80
31	a	1388	C	C5-C6-N1	5.65	123.82	121.00
1	A	432	G	N3-C2-N2	5.64	123.85	119.90
1	A	626	G	C6-N1-C2	-5.64	121.71	125.10
1	A	1174	U	OP2-P-O3'	5.64	117.62	105.20
1	A	1693	G	N3-C4-C5	5.64	131.42	128.60
1	A	2382	C	OP1-P-OP2	5.64	128.07	119.60
1	A	2428	U	O4'-C1'-N1	5.64	112.72	108.20
31	a	267	G	N3-C4-N9	5.64	129.39	126.00
1	A	626	G	N1-C6-O6	-5.64	116.51	119.90
1	A	1059	A	N1-C6-N6	-5.64	115.21	118.60
1	A	1250	G	C4-N9-C1'	5.64	133.83	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2084	G	C8-N9-C1'	-5.64	119.66	127.00
1	A	24	G	N7-C8-N9	5.64	115.92	113.10
1	A	529	A	N3-C4-C5	-5.64	122.85	126.80
1	A	2792	A	C8-N9-C4	5.64	108.06	105.80
1	A	588	G	N1-C2-N2	-5.64	111.13	116.20
1	A	2043	U	O5'-P-OP2	5.64	117.47	110.70
1	A	373	A	OP2-P-O3'	5.64	117.60	105.20
1	A	613	G	N1-C6-O6	-5.64	116.52	119.90
1	A	637	U	C6-N1-C2	-5.64	117.62	121.00
1	A	896	U	N1-C2-N3	5.64	118.28	114.90
1	A	1239	C	N3-C4-N4	-5.63	114.06	118.00
1	A	1512	U	N3-C2-O2	-5.63	118.26	122.20
1	A	1705	G	C8-N9-C1'	5.63	134.32	127.00
31	a	523	G	C4-N9-C1'	5.63	133.83	126.50
1	A	897	A	N7-C8-N9	5.63	116.62	113.80
1	A	2743	U	N1-C2-N3	5.63	118.28	114.90
2	B	88	G	N3-C4-N9	5.63	129.38	126.00
1	A	181	G	O4'-C1'-N9	5.63	112.70	108.20
1	A	557	G	OP1-P-OP2	-5.63	111.15	119.60
1	A	2539	C	C2-N3-C4	-5.63	117.08	119.90
1	A	407	G	N3-C4-N9	5.63	129.38	126.00
1	A	987	U	N3-C2-O2	-5.63	118.26	122.20
1	A	1054	A	C2'-C3'-O3'	5.63	122.71	113.70
1	A	1429	G	C5-N7-C8	-5.63	101.48	104.30
1	A	2594	G	N3-C2-N2	5.63	123.84	119.90
2	B	108	U	N1-C2-O2	5.63	126.74	122.80
31	a	1507	C	C6-N1-C2	-5.63	118.05	120.30
1	A	628	G	C2-N3-C4	-5.63	109.09	111.90
1	A	714	G	N3-C4-C5	-5.63	125.78	128.60
1	A	803	C	N3-C2-O2	-5.63	117.96	121.90
1	A	1272	U	C5-C6-N1	-5.63	119.89	122.70
1	A	1347	G	C6-N1-C2	-5.63	121.72	125.10
1	A	1687	G	N1-C6-O6	-5.63	116.52	119.90
1	A	1853	C	C4-C5-C6	-5.63	114.59	117.40
1	A	2079	G	C2-N3-C4	-5.63	109.09	111.90
1	A	2750	C	C2-N3-C4	-5.63	117.09	119.90
31	a	542	U	C2-N1-C1'	5.63	124.45	117.70
1	A	96	G	N3-C4-C5	5.62	131.41	128.60
1	A	1741	G	C8-N9-C4	-5.62	104.15	106.40
1	A	2856	U	C6-N1-C1'	5.62	129.07	121.20
1	A	1162	C	C1'-O4'-C4'	-5.62	105.40	109.90
1	A	1186	A	O4'-C1'-N9	5.62	112.70	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1706	U	N3-C4-O4	-5.62	115.46	119.40
1	A	2526	C	OP1-P-OP2	-5.62	111.17	119.60
1	A	2792	A	C8-N9-C1'	-5.62	117.58	127.70
1	A	829	U	O5'-P-OP1	-5.62	100.64	105.70
1	A	894	A	C6-N1-C2	5.62	121.97	118.60
1	A	1707	U	O5'-P-OP1	-5.62	100.64	105.70
1	A	2344	C	C5-C4-N4	-5.62	116.27	120.20
1	A	2834	C	N3-C4-C5	5.62	124.15	121.90
1	A	500	A	N1-C6-N6	5.62	121.97	118.60
1	A	572	C	C6-N1-C1'	-5.62	114.06	120.80
1	A	2046	U	OP2-P-O3'	5.62	117.56	105.20
1	A	32	C	C5-C6-N1	-5.62	118.19	121.00
1	A	700	A	C5-C6-N1	5.62	120.51	117.70
1	A	993	C	C2-N1-C1'	5.62	124.98	118.80
1	A	1023	A	C4-C5-C6	-5.62	114.19	117.00
1	A	1692	C	N3-C4-C5	5.62	124.15	121.90
1	A	1953	U	C6-N1-C1'	-5.62	113.33	121.20
1	A	1957	G	N3-C4-N9	-5.62	122.63	126.00
1	A	26	G	N3-C4-N9	5.62	129.37	126.00
1	A	1183	G	N1-C2-N3	5.62	127.27	123.90
1	A	458	A	C5-N7-C8	-5.62	101.09	103.90
1	A	1253	G	N1-C2-N3	5.62	127.27	123.90
1	A	1920	C	N1-C2-O2	5.62	122.27	118.90
1	A	2569	A	C5-C6-N6	-5.62	119.21	123.70
1	A	2570	G	C6-N1-C2	-5.62	121.73	125.10
1	A	2690	G	N3-C4-N9	5.62	129.37	126.00
1	A	530	C	C5-C4-N4	-5.61	116.27	120.20
1	A	621	A	O3'-P-O5'	5.61	114.67	104.00
1	A	1160	C	C5-C4-N4	5.61	124.13	120.20
1	A	1302	G	C5-N7-C8	-5.61	101.49	104.30
1	A	2032	A	N9-C4-C5	-5.61	103.56	105.80
1	A	2696	G	N3-C4-N9	5.61	129.37	126.00
1	A	2729	G	N3-C2-N2	-5.61	115.97	119.90
1	A	2752	A	C5-C6-N1	5.61	120.51	117.70
1	A	659	A	N7-C8-N9	5.61	116.61	113.80
1	A	2484	U	C4-C5-C6	-5.61	116.33	119.70
1	A	2706	A	OP2-P-O3'	5.61	117.54	105.20
31	a	1466	G	C8-N9-C1'	-5.61	119.71	127.00
1	A	1206	G	N7-C8-N9	5.61	115.90	113.10
1	A	1914	C	C2-N1-C1'	5.61	124.97	118.80
1	A	2630	G	C8-N9-C4	5.61	108.64	106.40
1	A	2651	G	N1-C6-O6	-5.61	116.54	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2913	G	C4-C5-N7	5.61	113.04	110.80
31	a	447	U	N3-C2-O2	-5.61	118.28	122.20
1	A	1029	C	C4-C5-C6	-5.61	114.60	117.40
1	A	1976	G	C5-C6-N1	5.61	114.30	111.50
1	A	2418	G	C5-N7-C8	5.61	107.10	104.30
1	A	2570	G	N9-C4-C5	5.61	107.64	105.40
31	a	1139	C	N1-C2-O2	5.61	122.26	118.90
1	A	2889	G	C2-N3-C4	5.60	114.70	111.90
31	a	1071	U	N3-C2-O2	-5.60	118.28	122.20
1	A	656	G	N3-C4-N9	5.60	129.36	126.00
1	A	754	U	N1-C2-O2	5.60	126.72	122.80
1	A	867	U	OP2-P-O3'	5.60	117.53	105.20
1	A	1092	A	C4-C5-N7	5.60	113.50	110.70
1	A	2249	G	N1-C6-O6	5.60	123.26	119.90
1	A	2482	G	OP2-P-O3'	5.60	117.53	105.20
1	A	542	A	C4-C5-C6	-5.60	114.20	117.00
1	A	605	U	C6-N1-C1'	5.60	129.04	121.20
1	A	2481	G	C4-C5-N7	-5.60	108.56	110.80
1	A	1205	U	O4'-C1'-N1	5.60	112.68	108.20
1	A	1225	G	N3-C4-N9	-5.60	122.64	126.00
1	A	1652	A	N1-C2-N3	-5.60	126.50	129.30
1	A	2432	G	N1-C2-N2	5.60	121.24	116.20
1	A	604	G	N9-C4-C5	-5.60	103.16	105.40
1	A	708	G	P-O5'-C5'	5.60	129.86	120.90
1	A	908	A	N1-C6-N6	-5.60	115.24	118.60
1	A	1285	A	N1-C6-N6	-5.60	115.24	118.60
1	A	2663	U	C4'-C3'-O3'	5.60	124.20	113.00
31	a	387	C	C6-N1-C1'	-5.60	114.08	120.80
31	a	1483	U	C2-N1-C1'	5.60	124.42	117.70
1	A	668	C	OP1-P-O3'	5.59	117.51	105.20
1	A	884	U	C2-N1-C1'	5.59	124.41	117.70
1	A	1717	G	N3-C4-C5	-5.59	125.80	128.60
1	A	2644	C	C5-C4-N4	5.59	124.12	120.20
1	A	284	C	C6-N1-C1'	-5.59	114.09	120.80
1	A	2851	G	C5'-C4'-C3'	-5.59	107.05	116.00
1	A	352	A	C5-C6-N1	5.59	120.50	117.70
1	A	457	G	N1-C6-O6	5.59	123.25	119.90
1	A	2442	G	C5-C6-N1	5.59	114.30	111.50
31	a	945	C	N3-C2-O2	-5.59	117.99	121.90
1	A	53	A	N3-C4-C5	5.59	130.71	126.80
1	A	191	A	C5-N7-C8	-5.59	101.11	103.90
1	A	378	C	OP1-P-OP2	-5.59	111.21	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	517	A	C5-C6-N6	5.59	128.17	123.70
1	A	1068	G	C6-C5-N7	5.59	133.75	130.40
1	A	2919	A	C5-C6-N1	5.59	120.50	117.70
1	A	480	U	C5-C6-N1	-5.59	119.91	122.70
1	A	2059	G	C8-N9-C1'	-5.59	119.74	127.00
1	A	2823	G	N3-C4-N9	5.59	129.35	126.00
1	A	113	U	N1-C2-O2	5.59	126.71	122.80
1	A	158	G	O5'-P-OP1	5.59	117.40	110.70
1	A	238	U	C6-N1-C1'	-5.59	113.38	121.20
1	A	1068	G	C8-N9-C1'	5.59	134.26	127.00
1	A	2642	U	O5'-P-OP1	-5.59	100.67	105.70
31	a	163	C	N3-C2-O2	-5.59	117.99	121.90
1	A	69	C	C5'-C4'-C3'	5.58	124.94	116.00
1	A	425	G	C2-N3-C4	5.58	114.69	111.90
1	A	2472	G	C5'-C4'-O4'	-5.58	102.40	109.10
1	A	1020	G	O5'-P-OP1	-5.58	100.67	105.70
1	A	1265	G	C8-N9-C1'	5.58	134.26	127.00
1	A	407	G	N9-C4-C5	-5.58	103.17	105.40
1	A	428	G	C6-N1-C2	-5.58	121.75	125.10
31	a	611	U	N1-C2-O2	5.58	126.71	122.80
1	A	1799	G	N1-C2-N2	-5.58	111.18	116.20
1	A	474	A	C1'-O4'-C4'	-5.58	105.44	109.90
1	A	1265	G	N9-C1'-C2'	-5.58	105.86	112.00
1	A	1803	G	N3-C4-N9	5.58	129.35	126.00
1	A	2386	C	N3-C4-N4	-5.58	114.10	118.00
1	A	2917	U	C5-C6-N1	5.58	125.49	122.70
31	a	720	A	N9-C4-C5	-5.58	103.57	105.80
1	A	1068	G	N7-C8-N9	5.58	115.89	113.10
1	A	1238	U	N3-C4-O4	-5.58	115.50	119.40
1	A	1463	A	C4-C5-C6	-5.58	114.21	117.00
1	A	2805	A	C4-N9-C1'	5.58	136.34	126.30
1	A	610	U	O5'-P-OP1	5.58	117.39	110.70
1	A	1014	U	C2-N3-C4	5.58	130.34	127.00
1	A	1291	A	C5-C6-N1	-5.58	114.91	117.70
1	A	2119	U	N1-C2-N3	5.57	118.24	114.90
1	A	1168	C	C5-C6-N1	5.57	123.79	121.00
1	A	2449	C	C6-N1-C1'	-5.57	114.11	120.80
1	A	182	C	N1-C2-O2	5.57	122.24	118.90
1	A	452	G	C6-C5-N7	-5.57	127.06	130.40
1	A	880	A	C4-C5-N7	5.57	113.48	110.70
1	A	1053	A	C4-C5-N7	5.57	113.48	110.70
1	A	2700	G	N1-C2-N2	-5.57	111.19	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2850	G	C5-C6-N1	5.57	114.29	111.50
1	A	999	U	O4'-C1'-N1	5.57	112.66	108.20
1	A	1264	A	N7-C8-N9	5.57	116.58	113.80
1	A	576	U	OP2-P-O3'	5.57	117.45	105.20
1	A	920	A	N7-C8-N9	-5.57	111.02	113.80
1	A	1857	C	N1-C2-O2	5.57	122.24	118.90
1	A	2076	A	O5'-P-OP1	5.57	117.38	110.70
1	A	2515	A	OP1-P-O3'	-5.57	92.95	105.20
1	A	2526	C	C4-C5-C6	-5.57	114.62	117.40
1	A	2675	G	N3-C4-N9	5.57	129.34	126.00
1	A	641	A	C5-C6-N6	-5.57	119.25	123.70
1	A	1282	A	C6-C5-N7	5.57	136.20	132.30
1	A	2082	C	N1-C2-N3	5.57	123.10	119.20
1	A	2303	G	N3-C4-C5	-5.57	125.82	128.60
1	A	1376	G	N3-C4-N9	-5.56	122.66	126.00
1	A	2567	C	OP2-P-O3'	5.56	117.44	105.20
2	B	58	C	C5-C6-N1	5.56	123.78	121.00
31	a	1219	C	C6-N1-C1'	-5.56	114.12	120.80
1	A	152	C	N3-C4-N4	5.56	121.89	118.00
1	A	639	U	OP1-P-OP2	-5.56	111.26	119.60
1	A	2459	A	C2-N3-C4	5.56	113.38	110.60
1	A	2819	C	C6-N1-C1'	-5.56	114.12	120.80
31	a	405	A	N3-C4-C5	-5.56	122.91	126.80
1	A	910	C	OP1-P-O3'	5.56	117.44	105.20
1	A	424	C	C4-C5-C6	5.56	120.18	117.40
1	A	861	C	O5'-C5'-C4'	-5.56	101.14	111.70
1	A	2095	U	N3-C4-C5	5.56	117.94	114.60
1	A	2297	G	N1-C2-N3	5.56	127.24	123.90
1	A	2603	G	C8-N9-C1'	-5.56	119.77	127.00
1	A	2698	A	N1-C2-N3	-5.56	126.52	129.30
1	A	159	U	C2-N1-C1'	5.56	124.37	117.70
1	A	160	G	C8-N9-C4	-5.56	104.18	106.40
1	A	358	G	C4-C5-N7	-5.56	108.58	110.80
1	A	395	U	C5-C4-O4	-5.56	122.57	125.90
1	A	555	C	C4'-C3'-C2'	-5.56	97.04	102.60
1	A	1702	C	C2-N3-C4	-5.56	117.12	119.90
1	A	1004	A	N9-C1'-C2'	-5.56	105.89	112.00
1	A	1804	U	O4'-C1'-N1	5.56	112.64	108.20
31	a	1238	C	C6-N1-C2	-5.56	118.08	120.30
1	A	20	C	C4-C5-C6	5.55	120.18	117.40
1	A	721	A	C4-C5-N7	5.55	113.48	110.70
2	B	2	C	C4-C5-C6	-5.55	114.62	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	a	721	G	N9-C4-C5	-5.55	103.18	105.40
1	A	875	G	O5'-P-OP2	5.55	117.36	110.70
1	A	2619	G	C8-N9-C1'	-5.55	119.78	127.00
1	A	919	G	N1-C2-N2	-5.55	111.20	116.20
1	A	2833	U	N3-C2-O2	-5.55	118.31	122.20
2	B	92	C	N3-C2-O2	-5.55	118.02	121.90
1	A	31	C	N3-C2-O2	-5.55	118.02	121.90
1	A	825	G	N3-C4-N9	5.55	129.33	126.00
1	A	360	A	O4'-C1'-N9	5.55	112.64	108.20
1	A	757	G	C2-N3-C4	5.55	114.67	111.90
1	A	901	G	C5-C6-N1	5.55	114.27	111.50
1	A	1008	C	P-O3'-C3'	5.55	126.36	119.70
1	A	1797	G	N1-C2-N2	5.55	121.19	116.20
1	A	2381	A	O3'-P-O5'	5.55	114.54	104.00
1	A	2900	C	N3-C4-C5	5.55	124.12	121.90
1	A	505	U	N3-C4-O4	-5.55	115.52	119.40
1	A	911	A	N1-C6-N6	-5.55	115.27	118.60
1	A	1012	G	N3-C4-C5	5.55	131.37	128.60
1	A	2472	G	N1-C2-N2	5.55	121.19	116.20
1	A	196	U	N1-C2-O2	5.54	126.68	122.80
1	A	820	G	C6-N1-C2	-5.54	121.77	125.10
1	A	1597	U	N3-C2-O2	-5.54	118.32	122.20
1	A	134	U	N1-C2-O2	5.54	126.68	122.80
1	A	2045	A	C5-C6-N6	-5.54	119.27	123.70
1	A	477	U	OP1-P-OP2	-5.54	111.29	119.60
1	A	1005	G	OP2-P-O3'	5.54	117.39	105.20
1	A	1240	U	O4'-C1'-N1	-5.54	103.77	108.20
1	A	2317	G	N1-C6-O6	-5.54	116.58	119.90
1	A	2387	A	C5-C6-N1	5.54	120.47	117.70
1	A	2577	G	C8-N9-C4	-5.54	104.18	106.40
1	A	587	C	N1-C1'-C2'	5.54	121.20	114.00
1	A	2324	C	C6-N1-C2	-5.54	118.08	120.30
1	A	2442	G	C5-C6-O6	5.54	131.92	128.60
1	A	2751	U	N3-C2-O2	-5.54	118.32	122.20
1	A	856	U	N3-C4-O4	-5.54	115.52	119.40
1	A	875	G	C4-N9-C1'	5.54	133.70	126.50
1	A	892	U	C6-N1-C2	5.54	124.32	121.00
1	A	1065	A	C8-N9-C4	-5.54	103.58	105.80
1	A	1238	U	N3-C2-O2	-5.54	118.32	122.20
1	A	1325	U	O5'-P-OP1	-5.54	100.72	105.70
1	A	2261	G	P-O3'-C3'	5.54	126.35	119.70
31	a	488	U	C2-N1-C1'	5.54	124.34	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2570	G	N3-C2-N2	5.54	123.78	119.90
1	A	124	A	C8-N9-C4	5.54	108.01	105.80
1	A	424	C	N1-C2-O2	5.54	122.22	118.90
1	A	1045	A	C5-N7-C8	-5.54	101.13	103.90
1	A	1677	G	N1-C6-O6	-5.54	116.58	119.90
1	A	2271	U	N1-C2-N3	5.54	118.22	114.90
1	A	1286	G	C5'-C4'-O4'	5.53	115.74	109.10
1	A	1477	U	C5-C4-O4	-5.53	122.58	125.90
1	A	2850	G	OP1-P-O3'	5.53	117.37	105.20
2	B	6	U	C6-N1-C2	-5.53	117.68	121.00
1	A	29	U	C5-C4-O4	5.53	129.22	125.90
1	A	476	A	C6-N1-C2	-5.53	115.28	118.60
1	A	1372	C	N1-C2-O2	-5.53	115.58	118.90
1	A	2265	G	N1-C6-O6	-5.53	116.58	119.90
1	A	1251	A	N3-C4-C5	-5.53	122.93	126.80
1	A	2090	C	OP1-P-O3'	5.53	117.37	105.20
1	A	2570	G	C8-N9-C1'	-5.53	119.81	127.00
1	A	630	G	P-O3'-C3'	5.53	126.33	119.70
1	A	961	G	C4-C5-C6	5.53	122.12	118.80
2	B	67	G	C4-C5-N7	5.53	113.01	110.80
31	a	530	C	C6-N1-C2	-5.53	118.09	120.30
1	A	42	G	N1-C2-N3	5.53	127.22	123.90
1	A	959	C	N1-C1'-C2'	-5.53	105.92	112.00
1	A	1057	A	C1'-O4'-C4'	-5.53	105.48	109.90
1	A	1353	A	N1-C6-N6	-5.53	115.28	118.60
31	a	717	U	C5-C6-N1	5.53	125.46	122.70
31	a	1141	A	N9-C4-C5	-5.53	103.59	105.80
1	A	466	C	O5'-P-OP1	-5.53	100.73	105.70
1	A	1378	U	N1-C2-O2	5.53	126.67	122.80
1	A	2650	G	C4-C5-N7	5.53	113.01	110.80
1	A	2659	A	C5-C6-N1	5.53	120.46	117.70
1	A	971	U	C2-N1-C1'	5.52	124.33	117.70
1	A	24	G	C4-N9-C1'	-5.52	119.32	126.50
1	A	288	C	C5-C6-N1	5.52	123.76	121.00
1	A	463	C	C2-N1-C1'	5.52	124.87	118.80
1	A	670	G	C4-C5-N7	5.52	113.01	110.80
1	A	688	A	C4-C5-N7	5.52	113.46	110.70
1	A	1264	A	C2-N3-C4	-5.52	107.84	110.60
1	A	2459	A	N7-C8-N9	5.52	116.56	113.80
1	A	2471	G	N7-C8-N9	-5.52	110.34	113.10
31	a	135	C	C6-N1-C1'	-5.52	114.17	120.80
1	A	153	G	N9-C4-C5	-5.52	103.19	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	206	U	N1-C2-N3	5.52	118.21	114.90
1	A	249	C	C2-N1-C1'	5.52	124.87	118.80
1	A	998	G	C4-C5-C6	-5.52	115.49	118.80
1	A	459	C	C5-C4-N4	-5.52	116.34	120.20
1	A	853	G	C4-C5-N7	5.52	113.01	110.80
1	A	1258	A	P-O3'-C3'	5.52	126.32	119.70
1	A	1303	A	O5'-P-OP2	-5.52	100.73	105.70
1	A	1665	U	OP1-P-O3'	5.52	117.34	105.20
1	A	1758	A	N7-C8-N9	5.52	116.56	113.80
1	A	1852	G	C6-N1-C2	-5.52	121.79	125.10
1	A	1976	G	C4-C5-C6	-5.52	115.49	118.80
1	A	2367	A	C6-N1-C2	-5.52	115.29	118.60
1	A	2588	A	C5-C6-N1	5.52	120.46	117.70
1	A	2739	U	N1-C2-N3	5.52	118.21	114.90
31	a	970	U	C5-C6-N1	5.52	125.46	122.70
1	A	325	A	P-O3'-C3'	5.52	126.32	119.70
1	A	2058	A	N9-C4-C5	5.52	108.01	105.80
1	A	2517	G	C2-N3-C4	-5.52	109.14	111.90
1	A	414	C	N3-C4-C5	5.52	124.11	121.90
1	A	2043	U	C5-C4-O4	-5.52	122.59	125.90
1	A	2271	U	C5-C4-O4	-5.52	122.59	125.90
1	A	2472	G	N3-C4-C5	-5.52	125.84	128.60
31	a	721	G	C6-C5-N7	-5.52	127.09	130.40
1	A	31	C	N3-C4-N4	-5.51	114.14	118.00
1	A	238	U	N1-C2-O2	-5.51	118.94	122.80
1	A	531	C	C2-N1-C1'	5.51	124.87	118.80
1	A	1651	C	N3-C4-C5	-5.51	119.69	121.90
1	A	2285	C	C2-N3-C4	-5.51	117.14	119.90
1	A	1267	A	C6-N1-C2	-5.51	115.29	118.60
1	A	1275	A	OP2-P-O3'	5.51	117.33	105.20
1	A	2079	G	N1-C2-N3	5.51	127.21	123.90
1	A	2082	C	N3-C4-N4	5.51	121.86	118.00
1	A	2469	C	C4-C5-C6	-5.51	114.64	117.40
1	A	8	U	N3-C2-O2	-5.51	118.34	122.20
1	A	363	A	C5-C6-N1	5.51	120.46	117.70
1	A	468	A	C5-N7-C8	-5.51	101.14	103.90
1	A	961	G	N3-C4-C5	-5.51	125.84	128.60
1	A	1013	U	C2-N1-C1'	5.51	124.31	117.70
1	A	1232	G	N9-C4-C5	-5.51	103.20	105.40
1	A	2109	A	C4-C5-N7	5.51	113.46	110.70
1	A	2499	G	N9-C4-C5	-5.51	103.19	105.40
1	A	2841	A	N1-C6-N6	-5.51	115.29	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	a	311	G	C6-C5-N7	-5.51	127.09	130.40
31	a	513	G	N3-C4-N9	5.51	129.31	126.00
1	A	143	U	N3-C2-O2	-5.51	118.34	122.20
1	A	1018	A	OP2-P-O3'	5.51	117.32	105.20
1	A	1714	C	C4-C5-C6	-5.51	114.64	117.40
1	A	2753	U	C5-C6-N1	5.51	125.45	122.70
1	A	2847	U	N3-C2-O2	-5.51	118.34	122.20
31	a	1507	C	C5-C6-N1	5.51	123.75	121.00
1	A	117	A	C5-C6-N1	5.51	120.45	117.70
1	A	1369	G	N1-C2-N3	5.51	127.20	123.90
1	A	18	C	C6-N1-C1'	-5.51	114.19	120.80
1	A	119	U	O4'-C1'-N1	5.51	112.60	108.20
1	A	468	A	C8-N9-C1'	-5.51	117.79	127.70
1	A	661	U	C5-C6-N1	5.51	125.45	122.70
1	A	1036	C	OP2-P-O3'	5.51	117.32	105.20
1	A	1251	A	O4'-C4'-C3'	-5.51	98.49	104.00
1	A	1284	A	C8-N9-C1'	5.51	137.61	127.70
1	A	1618	A	N1-C2-N3	-5.51	126.55	129.30
1	A	2522	G	OP2-P-O3'	5.51	117.31	105.20
31	a	150	U	C5-C6-N1	5.51	125.45	122.70
1	A	535	G	C5-N7-C8	-5.50	101.55	104.30
1	A	1179	C	N3-C4-C5	-5.50	119.70	121.90
1	A	1266	G	C8-N9-C1'	5.50	134.16	127.00
1	A	1734	A	N9-C4-C5	5.50	108.00	105.80
1	A	2749	G	C5-C6-O6	5.50	131.90	128.60
1	A	362	C	C5-C4-N4	5.50	124.05	120.20
1	A	1805	U	N1-C2-N3	5.50	118.20	114.90
1	A	2076	A	N3-C4-C5	-5.50	122.95	126.80
31	a	498	U	N3-C2-O2	-5.50	118.35	122.20
1	A	191	A	C5-C6-N1	5.50	120.45	117.70
1	A	215	G	C8-N9-C4	-5.50	104.20	106.40
1	A	225	A	OP1-P-O3'	-5.50	93.10	105.20
1	A	593	U	C6-N1-C1'	-5.50	113.50	121.20
1	A	896	U	N3-C4-C5	5.50	117.90	114.60
1	A	1266	G	N3-C4-C5	5.50	131.35	128.60
1	A	2053	U	N3-C4-O4	5.50	123.25	119.40
1	A	407	G	C4-N9-C1'	5.50	133.65	126.50
1	A	620	G	N7-C8-N9	-5.50	110.35	113.10
1	A	465	C	N3-C2-O2	-5.50	118.05	121.90
1	A	546	A	C6-C5-N7	-5.50	128.45	132.30
1	A	673	G	C5-C6-N1	5.50	114.25	111.50
1	A	990	G	N3-C4-C5	-5.50	125.85	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	590	U	C6-N1-C2	5.50	124.30	121.00
1	A	643	G	N9-C1'-C2'	-5.50	105.95	112.00
1	A	754	U	N3-C2-O2	-5.50	118.35	122.20
1	A	808	G	N3-C4-C5	-5.50	125.85	128.60
1	A	948	U	C5-C4-O4	5.50	129.20	125.90
1	A	2658	G	N3-C4-C5	5.50	131.35	128.60
1	A	2827	A	C5'-C4'-O4'	5.50	115.70	109.10
2	B	107	U	C6-N1-C2	-5.50	117.70	121.00
1	A	997	G	C6-N1-C2	-5.50	121.80	125.10
1	A	1264	A	O5'-P-OP1	5.50	117.29	110.70
1	A	1324	A	C4-C5-C6	5.50	119.75	117.00
1	A	1432	A	C4-C5-C6	-5.50	114.25	117.00
1	A	486	G	N1-C6-O6	-5.49	116.60	119.90
1	A	901	G	N1-C2-N3	5.49	127.20	123.90
1	A	1029	C	O3'-P-O5'	5.49	114.44	104.00
1	A	1680	U	N1-C2-N3	5.49	118.20	114.90
1	A	2380	G	C4-C5-N7	5.49	113.00	110.80
1	A	2519	U	O4'-C1'-N1	5.49	112.59	108.20
1	A	2733	A	C6-C5-N7	-5.49	128.45	132.30
1	A	125	A	N9-C1'-C2'	5.49	121.14	114.00
1	A	1273	G	N7-C8-N9	-5.49	110.35	113.10
1	A	200	A	C2-N3-C4	-5.49	107.86	110.60
1	A	375	A	OP1-P-O3'	5.49	117.28	105.20
1	A	496	G	O4'-C4'-C3'	-5.49	98.51	104.00
1	A	720	A	N9-C4-C5	5.49	108.00	105.80
1	A	2057	A	C5-C6-N1	5.49	120.44	117.70
1	A	2419	A	P-O3'-C3'	5.49	126.29	119.70
31	a	1325	U	N1-C2-O2	5.49	126.64	122.80
1	A	480	U	N1-C1'-C2'	5.49	121.14	114.00
1	A	613	G	N3-C4-C5	-5.49	125.86	128.60
1	A	809	A	C5-C6-N6	5.49	128.09	123.70
1	A	1289	A	C3'-C2'-C1'	-5.49	97.11	101.50
1	A	200	A	C6-C5-N7	-5.49	128.46	132.30
31	a	786	U	N3-C2-O2	-5.49	118.36	122.20
1	A	479	C	C6-N1-C1'	5.49	127.38	120.80
1	A	896	U	C5-C6-N1	-5.49	119.96	122.70
1	A	1047	G	O5'-P-OP1	-5.49	100.76	105.70
1	A	1227	U	OP2-P-O3'	5.49	117.27	105.20
1	A	2396	A	N3-C4-C5	-5.49	122.96	126.80
31	a	1274	C	N1-C2-O2	5.49	122.19	118.90
1	A	648	G	OP2-P-O3'	5.48	117.27	105.20
1	A	776	C	O5'-P-OP1	-5.48	100.76	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2410	G	C8-N9-C4	-5.48	104.21	106.40
1	A	2474	G	N1-C2-N3	5.48	127.19	123.90
31	a	835	U	N3-C2-O2	-5.48	118.36	122.20
1	A	26	G	N1-C2-N2	-5.48	111.27	116.20
1	A	413	C	N1-C2-O2	5.48	122.19	118.90
1	A	610	U	OP2-P-O3'	5.48	117.26	105.20
1	A	894	A	O4'-C1'-N9	-5.48	103.81	108.20
1	A	1298	G	N3-C2-N2	-5.48	116.06	119.90
1	A	2046	U	C3'-C2'-C1'	5.48	105.89	101.50
1	A	90	A	C6-C5-N7	-5.48	128.46	132.30
1	A	360	A	N3-C4-C5	-5.48	122.96	126.80
1	A	483	C	N1-C2-N3	5.48	123.04	119.20
1	A	872	U	O5'-P-OP2	5.48	117.28	110.70
1	A	1048	U	N3-C4-C5	-5.48	111.31	114.60
1	A	2085	A	N7-C8-N9	5.48	116.54	113.80
1	A	2444	C	C5-C6-N1	5.48	123.74	121.00
1	A	2638	C	C6-N1-C2	-5.48	118.11	120.30
31	a	1405	C	C6-N1-C2	-5.48	118.11	120.30
1	A	646	A	C4-C5-C6	-5.48	114.26	117.00
1	A	1034	A	C5-C6-N1	5.48	120.44	117.70
1	A	2702	A	N3-C4-C5	5.48	130.63	126.80
1	A	2724	G	N7-C8-N9	-5.48	110.36	113.10
1	A	4	U	C5-C6-N1	5.48	125.44	122.70
1	A	514	G	C5-C6-N1	5.48	114.24	111.50
1	A	1093	C	N3-C4-C5	-5.48	119.71	121.90
1	A	2052	C	O5'-P-OP1	-5.48	100.77	105.70
1	A	2460	A	C6-N1-C2	-5.48	115.31	118.60
1	A	2499	G	C4-C5-N7	5.48	112.99	110.80
1	A	2716	U	C5-C4-O4	5.48	129.19	125.90
1	A	2905	C	N3-C4-N4	5.48	121.83	118.00
1	A	1299	U	C6-N1-C1'	-5.48	113.53	121.20
1	A	2347	A	N1-C2-N3	5.48	132.04	129.30
1	A	2901	U	O4'-C1'-N1	5.48	112.58	108.20
1	A	59	U	N3-C2-O2	-5.47	118.37	122.20
1	A	507	C	C6-N1-C2	-5.47	118.11	120.30
1	A	523	A	N7-C8-N9	-5.47	111.06	113.80
1	A	571	A	C8-N9-C4	-5.47	103.61	105.80
1	A	635	G	N1-C2-N3	5.47	127.18	123.90
1	A	704	U	C6-N1-C1'	-5.47	113.54	121.20
1	A	714	G	N1-C2-N3	5.47	127.18	123.90
1	A	890	G	N1-C6-O6	5.47	123.18	119.90
1	A	1934	G	C4-N9-C1'	5.47	133.62	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2440	G	C4-C5-N7	5.47	112.99	110.80
31	a	135	C	C5-C6-N1	5.47	123.74	121.00
1	A	594	G	C4-N9-C1'	5.47	133.61	126.50
1	A	2603	G	C5-N7-C8	-5.47	101.56	104.30
31	a	1205	C	C5-C6-N1	5.47	123.74	121.00
1	A	421	C	N1-C2-O2	5.47	122.18	118.90
1	A	808	G	C5-C6-N1	5.47	114.24	111.50
1	A	2754	G	C5-C6-N1	5.47	114.23	111.50
1	A	2793	G	N3-C4-C5	-5.47	125.86	128.60
1	A	208	G	N3-C4-C5	-5.47	125.86	128.60
1	A	453	G	N3-C4-N9	5.47	129.28	126.00
1	A	563	G	C1'-O4'-C4'	-5.47	105.53	109.90
1	A	1375	G	N9-C4-C5	-5.47	103.21	105.40
1	A	2314	A	N9-C4-C5	-5.47	103.61	105.80
1	A	2579	U	O4'-C1'-N1	5.47	112.58	108.20
1	A	2676	U	C2-N1-C1'	5.47	124.26	117.70
1	A	2903	A	C4-C5-C6	-5.47	114.27	117.00
1	A	637	U	N3-C2-O2	-5.47	118.37	122.20
1	A	1027	A	OP2-P-O3'	5.47	117.23	105.20
1	A	2061	U	C4-C5-C6	-5.47	116.42	119.70
1	A	540	G	N1-C6-O6	-5.47	116.62	119.90
1	A	1945	A	N3-C4-N9	5.47	131.77	127.40
1	A	2265	G	N9-C4-C5	-5.47	103.21	105.40
1	A	2347	A	N9-C1'-C2'	5.47	121.11	114.00
1	A	2713	G	C5-C6-O6	5.47	131.88	128.60
1	A	2856	U	N1-C2-N3	5.47	118.18	114.90
1	A	2886	G	C4-C5-C6	5.47	122.08	118.80
1	A	495	A	C5-C6-N1	5.46	120.43	117.70
1	A	1037	A	N1-C6-N6	-5.46	115.32	118.60
1	A	1201	G	O5'-P-OP1	5.46	117.26	110.70
1	A	1675	G	N3-C4-N9	5.46	129.28	126.00
1	A	2358	G	C5-N7-C8	-5.46	101.57	104.30
1	A	2847	U	N1-C2-O2	5.46	126.62	122.80
1	A	267	G	N3-C2-N2	5.46	123.72	119.90
1	A	411	A	O4'-C1'-N9	5.46	112.57	108.20
1	A	877	G	N3-C4-C5	-5.46	125.87	128.60
1	A	2478	A	N1-C2-N3	5.46	132.03	129.30
1	A	2760	A	C4-N9-C1'	5.46	136.13	126.30
31	a	1119	G	C8-N9-C1'	-5.46	119.90	127.00
1	A	666	A	C4-C5-N7	5.46	113.43	110.70
1	A	2878	U	P-O3'-C3'	5.46	126.25	119.70
2	B	87	C	C5-C6-N1	5.46	123.73	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1031	C	C5-C4-N4	5.46	124.02	120.20
1	A	874	A	C3'-C2'-C1'	5.46	105.87	101.50
1	A	972	A	N9-C4-C5	-5.46	103.62	105.80
1	A	2696	G	C4-N9-C1'	5.46	133.60	126.50
1	A	443	U	N3-C4-O4	-5.46	115.58	119.40
1	A	987	U	N3-C4-C5	5.46	117.87	114.60
1	A	2653	C	O4'-C1'-N1	5.46	112.57	108.20
1	A	1045	A	O5'-P-OP1	-5.46	100.79	105.70
1	A	2079	G	C4-C5-C6	5.46	122.07	118.80
1	A	262	G	C3'-C2'-C1'	5.45	105.86	101.50
1	A	997	G	C4-C5-C6	-5.45	115.53	118.80
1	A	1064	A	N9-C4-C5	5.45	107.98	105.80
1	A	1086	G	C6-C5-N7	5.45	133.67	130.40
1	A	2061	U	C6-N1-C2	5.45	124.27	121.00
1	A	2593	A	O4'-C1'-N9	-5.45	103.84	108.20
28	2	40	ARG	NE-CZ-NH2	5.45	123.03	120.30
31	a	665	U	C5-C6-N1	5.45	125.43	122.70
31	a	1119	G	C4-N9-C1'	5.45	133.59	126.50
1	A	85	G	C8-N9-C4	5.45	108.58	106.40
1	A	529	A	O4'-C1'-N9	5.45	112.56	108.20
1	A	66	C	C2-N3-C4	5.45	122.62	119.90
1	A	747	U	N3-C2-O2	-5.45	118.38	122.20
1	A	833	A	OP1-P-O3'	5.45	117.19	105.20
31	a	1095	G	N7-C8-N9	5.45	115.83	113.10
1	A	407	G	C5-N7-C8	-5.45	101.58	104.30
1	A	515	G	C5-C6-O6	5.45	131.87	128.60
1	A	891	A	C5-N7-C8	-5.45	101.17	103.90
1	A	919	G	N3-C4-N9	5.45	129.27	126.00
1	A	988	C	C6-N1-C1'	-5.45	114.26	120.80
1	A	1449	A	C2-N3-C4	5.45	113.32	110.60
1	A	1456	U	N1-C2-O2	5.45	126.61	122.80
1	A	2007	G	C2-N3-C4	5.45	114.62	111.90
1	A	2485	U	OP2-P-O3'	5.45	117.19	105.20
1	A	592	A	C5-C6-N1	5.45	120.42	117.70
1	A	1001	A	C2-N3-C4	5.45	113.32	110.60
1	A	1304	G	N9-C4-C5	-5.45	103.22	105.40
1	A	2433	C	C2-N1-C1'	-5.45	112.81	118.80
1	A	2903	A	C4-N9-C1'	-5.45	116.50	126.30
1	A	474	A	O5'-P-OP2	5.45	117.23	110.70
1	A	1180	G	N1-C2-N2	-5.45	111.30	116.20
1	A	1798	C	C6-N1-C2	-5.45	118.12	120.30
1	A	2547	C	N1-C2-O2	5.45	122.17	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2808	A	N3-C4-C5	5.45	130.61	126.80
1	A	446	G	C8-N9-C4	5.44	108.58	106.40
1	A	703	A	N9-C4-C5	5.44	107.98	105.80
1	A	863	G	P-O3'-C3'	5.44	126.23	119.70
1	A	2016	A	C5-C6-N1	5.44	120.42	117.70
1	A	73	A	N7-C8-N9	5.44	116.52	113.80
1	A	950	A	C2-N3-C4	5.44	113.32	110.60
1	A	989	A	N7-C8-N9	5.44	116.52	113.80
1	A	1672	G	C5-C6-N1	5.44	114.22	111.50
1	A	1994	C	C6-N1-C2	-5.44	118.12	120.30
1	A	2641	A	C4-C5-N7	-5.44	107.98	110.70
1	A	2823	G	C8-N9-C1'	-5.44	119.93	127.00
1	A	2827	A	N1-C6-N6	-5.44	115.33	118.60
31	a	422	A	C4-N9-C1'	5.44	136.10	126.30
1	A	215	G	C5-N7-C8	-5.44	101.58	104.30
1	A	218	G	C2-N3-C4	5.44	114.62	111.90
31	a	1186	A	N3-C4-N9	5.44	131.75	127.40
1	A	379	C	C5-C6-N1	5.44	123.72	121.00
1	A	692	G	C8-N9-C1'	-5.44	119.93	127.00
1	A	1255	A	C6-C5-N7	-5.44	128.49	132.30
1	A	2062	G	N7-C8-N9	5.44	115.82	113.10
1	A	55	G	N1-C6-O6	-5.44	116.64	119.90
1	A	495	A	C2-N3-C4	5.44	113.32	110.60
1	A	1841	G	N9-C4-C5	5.44	107.58	105.40
1	A	2274	A	OP1-P-O3'	5.44	117.16	105.20
1	A	2358	G	C4-C5-N7	5.44	112.97	110.80
1	A	2480	A	C5-C6-N1	5.44	120.42	117.70
1	A	1186	A	C8-N9-C1'	-5.44	117.92	127.70
1	A	1683	U	C5-C6-N1	-5.44	119.98	122.70
1	A	2889	G	C4-N9-C1'	5.44	133.57	126.50
1	A	505	U	C5-C6-N1	5.43	125.42	122.70
1	A	638	U	C2-N1-C1'	5.43	124.22	117.70
1	A	1010	G	N1-C2-N3	5.43	127.16	123.90
1	A	1801	C	N3-C4-N4	-5.43	114.20	118.00
1	A	2082	C	P-O3'-C3'	5.43	126.22	119.70
1	A	2593	A	O5'-P-OP1	5.43	117.22	110.70
31	a	1173	G	N1-C6-O6	5.43	123.16	119.90
1	A	24	G	C6-N1-C2	-5.43	121.84	125.10
1	A	228	A	C5-C6-N1	5.43	120.42	117.70
1	A	563	G	O5'-P-OP2	-5.43	100.81	105.70
1	A	568	C	C6-N1-C2	-5.43	118.13	120.30
1	A	2344	C	N1-C2-O2	5.43	122.16	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	613	G	O4'-C1'-N9	5.43	112.54	108.20
1	A	1857	C	C5-C6-N1	5.43	123.72	121.00
1	A	2305	A	C5-N7-C8	-5.43	101.19	103.90
1	A	2344	C	C2-N1-C1'	5.43	124.77	118.80
1	A	2377	C	C2-N3-C4	-5.43	117.19	119.90
1	A	2419	A	O3'-P-O5'	5.43	114.32	104.00
31	a	1220	C	C6-N1-C2	-5.43	118.13	120.30
1	A	1068	G	C5-C6-N1	5.43	114.21	111.50
1	A	470	G	N1-C2-N2	5.42	121.08	116.20
1	A	708	G	C5-C6-N1	5.42	114.21	111.50
1	A	957	C	C2-N1-C1'	5.42	124.77	118.80
1	A	1078	G	N1-C2-N2	5.42	121.08	116.20
1	A	1172	A	N7-C8-N9	5.42	116.51	113.80
1	A	1183	G	C5-C6-O6	-5.42	125.35	128.60
1	A	2306	G	C6-C5-N7	5.42	133.65	130.40
1	A	2352	G	N9-C4-C5	5.42	107.57	105.40
1	A	2705	U	N1-C2-O2	5.42	126.60	122.80
1	A	2902	A	C4-N9-C1'	5.42	136.06	126.30
2	B	6	U	P-O3'-C3'	5.42	126.21	119.70
1	A	692	G	N1-C6-O6	5.42	123.15	119.90
1	A	994	A	O5'-P-OP1	-5.42	100.82	105.70
1	A	2861	U	C5-C6-N1	5.42	125.41	122.70
1	A	1163	U	C6-N1-C2	-5.42	117.75	121.00
1	A	2298	G	C4-N9-C1'	5.42	133.55	126.50
1	A	2568	A	C8-N9-C1'	-5.42	117.94	127.70
31	a	1459	C	C6-N1-C2	-5.42	118.13	120.30
46	p	75	LEU	CA-CB-CG	5.42	127.77	115.30
1	A	1169	G	OP1-P-O3'	5.42	117.12	105.20
1	A	2029	G	C8-N9-C1'	5.42	134.05	127.00
1	A	2386	C	N1-C2-N3	5.42	122.99	119.20
1	A	2803	A	OP1-P-O3'	5.42	117.12	105.20
1	A	367	A	C4-C5-C6	-5.42	114.29	117.00
31	a	60	A	N3-C4-N9	5.42	131.74	127.40
1	A	46	C	C6-N1-C2	-5.42	118.13	120.30
1	A	651	A	N1-C2-N3	-5.42	126.59	129.30
1	A	1238	U	C6-N1-C1'	5.42	128.78	121.20
1	A	1346	G	N9-C4-C5	-5.42	103.23	105.40
1	A	2585	C	O4'-C1'-N1	5.42	112.53	108.20
1	A	2677	C	N3-C2-O2	-5.42	118.11	121.90
1	A	2812	U	N3-C4-O4	5.42	123.19	119.40
31	a	683	A	N7-C8-N9	5.42	116.51	113.80
1	A	2100	C	C6-N1-C2	-5.42	118.13	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2295	A	OP1-P-O3'	5.42	117.11	105.20
31	a	685	U	N1-C2-O2	5.42	126.59	122.80
1	A	489	A	O4'-C4'-C3'	-5.41	98.59	104.00
1	A	2083	G	O5'-P-OP2	5.41	117.20	110.70
1	A	28	A	C2-N3-C4	5.41	113.31	110.60
1	A	846	G	N1-C2-N2	5.41	121.07	116.20
1	A	1691	G	N3-C4-N9	-5.41	122.75	126.00
1	A	2047	A	C8-N9-C1'	-5.41	117.96	127.70
31	a	109	C	C6-N1-C2	-5.41	118.14	120.30
1	A	613	G	O5'-P-OP1	-5.41	100.83	105.70
1	A	1644	C	N3-C2-O2	-5.41	118.11	121.90
1	A	1755	U	C2-N1-C1'	5.41	124.19	117.70
1	A	2042	A	C8-N9-C4	-5.41	103.64	105.80
1	A	2207	U	C5-C6-N1	5.41	125.41	122.70
1	A	2358	G	N1-C6-O6	-5.41	116.65	119.90
1	A	2893	A	N9-C4-C5	5.41	107.96	105.80
31	a	762	C	C2-N1-C1'	5.41	124.75	118.80
1	A	70	G	C5-C6-O6	5.41	131.84	128.60
1	A	420	A	C5'-C4'-O4'	5.41	115.59	109.10
1	A	1064	A	C5-C6-N6	5.41	128.03	123.70
1	A	1352	C	N3-C2-O2	-5.41	118.11	121.90
1	A	2421	C	C2-N3-C4	-5.41	117.19	119.90
1	A	2568	A	P-O3'-C3'	-5.41	113.21	119.70
1	A	2578	C	N3-C4-N4	5.41	121.79	118.00
31	a	1186	A	C4-N9-C1'	5.41	136.04	126.30
31	a	1524	A	N9-C4-C5	5.41	107.96	105.80
1	A	1790	G	O5'-P-OP2	-5.41	100.83	105.70
31	a	1318	U	N3-C2-O2	-5.41	118.42	122.20
1	A	104	C	C6-N1-C1'	-5.41	114.31	120.80
1	A	717	C	N3-C4-C5	5.41	124.06	121.90
1	A	1481	A	N1-C2-N3	-5.41	126.60	129.30
1	A	2288	C	C2-N3-C4	-5.41	117.20	119.90
1	A	2646	U	N1-C1'-C2'	-5.41	106.05	112.00
31	a	195	C	C6-N1-C2	-5.41	118.14	120.30
1	A	1699	A	C2-N3-C4	5.40	113.30	110.60
1	A	263	G	C6-C5-N7	-5.40	127.16	130.40
1	A	489	A	C5'-C4'-C3'	5.40	124.64	116.00
1	A	581	A	OP2-P-O3'	-5.40	93.31	105.20
1	A	1807	A	C4-C5-N7	5.40	113.40	110.70
1	A	2107	G	C4-C5-N7	5.40	112.96	110.80
1	A	2604	A	C5-N7-C8	5.40	106.60	103.90
1	A	25	U	O4'-C1'-N1	5.40	112.52	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	374	U	C3'-C2'-C1'	5.40	105.82	101.50
1	A	412	U	N1-C2-O2	5.40	126.58	122.80
1	A	1358	A	C4-N9-C1'	5.40	136.02	126.30
1	A	1610	G	N1-C6-O6	-5.40	116.66	119.90
1	A	1783	G	C6-N1-C2	-5.40	121.86	125.10
1	A	2699	U	C6-N1-C1'	-5.40	113.64	121.20
31	a	1352	C	C6-N1-C2	-5.40	118.14	120.30
1	A	667	G	N9-C1'-C2'	-5.40	106.06	112.00
1	A	2585	C	C2-N3-C4	5.40	122.60	119.90
1	A	351	G	C4-N9-C1'	5.40	133.52	126.50
1	A	532	C	C4-C5-C6	-5.40	114.70	117.40
1	A	1456	U	N3-C2-O2	-5.40	118.42	122.20
1	A	2630	G	N7-C8-N9	-5.40	110.40	113.10
31	a	387	C	C6-N1-C2	-5.40	118.14	120.30
1	A	858	U	O5'-P-OP1	-5.40	100.84	105.70
1	A	910	C	N3-C4-C5	5.40	124.06	121.90
1	A	1308	C	N3-C2-O2	-5.40	118.12	121.90
1	A	2730	C	C2-N1-C1'	5.40	124.74	118.80
1	A	128	C	C6-N1-C2	-5.39	118.14	120.30
1	A	200	A	N1-C2-N3	5.39	132.00	129.30
31	a	154	U	N1-C2-O2	5.39	126.58	122.80
1	A	51	G	C5-C6-N1	5.39	114.20	111.50
1	A	2066	G	C6-N1-C2	-5.39	121.86	125.10
1	A	2084	G	N1-C6-O6	-5.39	116.66	119.90
1	A	2508	G	N1-C2-N2	-5.39	111.35	116.20
1	A	2791	A	C4-C5-C6	-5.39	114.30	117.00
1	A	858	U	OP1-P-O3'	5.39	117.06	105.20
1	A	1023	A	N7-C8-N9	5.39	116.50	113.80
1	A	53	A	N3-C4-N9	-5.39	123.09	127.40
1	A	239	C	C2-N1-C1'	5.39	124.73	118.80
1	A	528	C	C2-N3-C4	-5.39	117.21	119.90
1	A	1361	G	C2-N3-C4	5.39	114.59	111.90
1	A	1374	G	N3-C4-C5	-5.39	125.91	128.60
1	A	2362	A	C4-C5-N7	5.39	113.39	110.70
1	A	2639	C	C4-C5-C6	-5.39	114.70	117.40
1	A	2740	A	N9-C4-C5	-5.39	103.64	105.80
1	A	2825	U	C5-C4-O4	-5.39	122.67	125.90
1	A	46	C	N3-C4-N4	5.39	121.77	118.00
1	A	542	A	C5-C6-N1	5.39	120.39	117.70
1	A	817	G	C5-N7-C8	-5.39	101.61	104.30
1	A	30	G	C5-N7-C8	-5.39	101.61	104.30
1	A	478	A	C6-N1-C2	5.39	121.83	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	853	G	C5-C6-N1	5.39	114.19	111.50
1	A	1178	C	OP1-P-O3'	5.39	117.05	105.20
1	A	1430	A	C6-C5-N7	5.39	136.07	132.30
1	A	1694	A	C2-N3-C4	5.39	113.29	110.60
1	A	2620	U	N3-C2-O2	-5.39	118.43	122.20
1	A	2799	C	C6-N1-C2	-5.39	118.14	120.30
1	A	2806	U	O4'-C1'-N1	5.39	112.51	108.20
1	A	176	A	C4-N9-C1'	5.38	135.99	126.30
1	A	634	C	C2-N3-C4	-5.38	117.21	119.90
1	A	817	G	C5-C6-N1	5.38	114.19	111.50
1	A	1363	U	C5'-C4'-C3'	5.38	124.61	116.00
1	A	2353	U	C2-N3-C4	-5.38	123.77	127.00
1	A	2751	U	N1-C2-N3	5.38	118.13	114.90
1	A	2866	G	N9-C4-C5	-5.38	103.25	105.40
31	a	713	G	C4-N9-C1'	5.38	133.50	126.50
1	A	14	A	N9-C4-C5	-5.38	103.65	105.80
1	A	1366	U	N1-C2-O2	-5.38	119.03	122.80
1	A	2007	G	O5'-P-OP2	-5.38	100.86	105.70
1	A	2023	C	C4'-C3'-C2'	-5.38	97.22	102.60
1	A	488	G	N3-C4-C5	5.38	131.29	128.60
1	A	541	G	C8-N9-C1'	5.38	134.00	127.00
31	a	461	C	C6-N1-C2	-5.38	118.15	120.30
1	A	1030	C	N3-C4-C5	5.38	124.05	121.90
1	A	552	A	C5-C6-N6	-5.38	119.40	123.70
1	A	818	U	C5-C4-O4	-5.38	122.67	125.90
1	A	987	U	OP1-P-O3'	5.38	117.03	105.20
1	A	1171	A	O5'-P-OP1	-5.38	100.86	105.70
1	A	1616	A	C5-C6-N6	5.38	128.00	123.70
1	A	2249	G	N9-C4-C5	-5.38	103.25	105.40
1	A	2472	G	O5'-P-OP2	-5.38	100.86	105.70
1	A	1046	G	C4'-C3'-O3'	5.38	123.75	113.00
1	A	1686	G	C5-C6-N1	5.38	114.19	111.50
1	A	1948	G	N9-C4-C5	-5.38	103.25	105.40
1	A	2868	G	C4-N9-C1'	5.38	133.49	126.50
31	a	1313	C	N3-C2-O2	-5.38	118.14	121.90
1	A	261	U	N3-C2-O2	-5.38	118.44	122.20
1	A	371	U	O5'-P-OP2	5.38	117.15	110.70
1	A	641	A	N1-C6-N6	5.38	121.83	118.60
1	A	1702	C	N1-C2-N3	5.38	122.96	119.20
31	a	956	G	N7-C8-N9	5.38	115.79	113.10
31	a	1012	G	C4-N9-C1'	5.38	133.49	126.50
1	A	303	G	N3-C4-C5	5.37	131.29	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	442	G	C6-C5-N7	5.37	133.62	130.40
1	A	453	G	C6-C5-N7	-5.37	127.17	130.40
1	A	894	A	C4-N9-C1'	5.37	135.97	126.30
1	A	960	C	N3-C2-O2	-5.37	118.14	121.90
1	A	1263	A	N3-C4-N9	-5.37	123.10	127.40
1	A	1267	A	P-O3'-C3'	5.37	126.15	119.70
1	A	1283	G	C8-N9-C4	-5.37	104.25	106.40
1	A	2902	A	C5-C6-N6	-5.37	119.40	123.70
1	A	241	C	C5'-C4'-O4'	-5.37	102.65	109.10
1	A	446	G	N3-C4-C5	5.37	131.29	128.60
1	A	896	U	N1-C2-O2	5.37	126.56	122.80
31	a	405	A	C4-N9-C1'	5.37	135.97	126.30
31	a	660	U	N1-C2-O2	5.37	126.56	122.80
31	a	989	C	C2-N1-C1'	5.37	124.71	118.80
1	A	94	A	N1-C6-N6	5.37	121.82	118.60
1	A	397	U	N1-C2-O2	5.37	126.56	122.80
1	A	956	A	N9-C4-C5	5.37	107.95	105.80
1	A	186	C	N3-C2-O2	-5.37	118.14	121.90
1	A	491	C	O4'-C1'-N1	5.37	112.49	108.20
1	A	572	C	P-O3'-C3'	5.37	126.14	119.70
1	A	600	U	N3-C4-C5	-5.37	111.38	114.60
1	A	1024	A	C5-C6-N6	-5.37	119.41	123.70
1	A	1654	A	N1-C6-N6	5.37	121.82	118.60
1	A	2881	C	C5-C6-N1	5.37	123.68	121.00
31	a	454	G	C8-N9-C1'	-5.37	120.02	127.00
1	A	999	U	C2-N1-C1'	5.37	124.14	117.70
1	A	1068	G	N3-C4-N9	-5.37	122.78	126.00
1	A	2543	G	C2-N3-C4	5.37	114.58	111.90
1	A	2801	C	C5-C6-N1	5.37	123.68	121.00
2	B	76	A	C8-N9-C1'	-5.37	118.04	127.70
1	A	151	U	C2-N1-C1'	5.36	124.14	117.70
1	A	522	G	C8-N9-C4	-5.36	104.25	106.40
1	A	977	A	C4-C5-C6	-5.36	114.32	117.00
1	A	1084	U	C6-N1-C1'	-5.36	113.69	121.20
1	A	1785	G	C6-N1-C2	-5.36	121.88	125.10
1	A	635	G	C6-N1-C2	-5.36	121.88	125.10
1	A	2049	U	N3-C4-O4	-5.36	115.65	119.40
1	A	2605	G	OP1-P-OP2	-5.36	111.56	119.60
1	A	2815	C	P-O3'-C3'	5.36	126.13	119.70
31	a	645	U	N3-C2-O2	-5.36	118.45	122.20
1	A	442	G	C8-N9-C1'	5.36	133.97	127.00
1	A	844	G	C5-N7-C8	-5.36	101.62	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1367	C	C5-C4-N4	-5.36	116.45	120.20
1	A	1718	G	N1-C6-O6	-5.36	116.69	119.90
1	A	522	G	C2-N3-C4	5.36	114.58	111.90
1	A	1290	G	OP1-P-O3'	5.36	116.99	105.20
1	A	1372	C	C5-C6-N1	5.36	123.68	121.00
1	A	2599	A	OP1-P-O3'	5.36	116.98	105.20
1	A	253	G	C4-C5-C6	-5.36	115.59	118.80
1	A	1092	A	C4-N9-C1'	5.36	135.94	126.30
1	A	1219	G	C2-N3-C4	-5.36	109.22	111.90
1	A	1604	C	N3-C4-C5	5.36	124.04	121.90
1	A	2224	U	N1-C2-O2	5.36	126.55	122.80
1	A	1227	U	C4'-C3'-O3'	5.35	123.71	113.00
1	A	1668	U	N3-C2-O2	-5.35	118.45	122.20
1	A	483	C	N3-C4-C5	-5.35	119.76	121.90
1	A	614	U	OP1-P-OP2	-5.35	111.57	119.60
1	A	1094	A	C8-N9-C4	-5.35	103.66	105.80
2	B	2	C	N3-C2-O2	-5.35	118.15	121.90
1	A	986	G	C4-C5-N7	5.35	112.94	110.80
1	A	2327	A	N9-C4-C5	-5.35	103.66	105.80
1	A	2393	A	C4-C5-C6	-5.35	114.33	117.00
1	A	2856	U	C4-C5-C6	5.35	122.91	119.70
1	A	470	G	C5'-C4'-O4'	5.35	115.52	109.10
1	A	558	A	C2-N3-C4	5.35	113.27	110.60
1	A	825	G	C8-N9-C1'	-5.35	120.05	127.00
1	A	1019	A	C5-N7-C8	-5.35	101.22	103.90
1	A	1239	C	C6-N1-C1'	5.35	127.22	120.80
1	A	2863	G	N9-C1'-C2'	5.35	120.95	114.00
1	A	2906	G	C5-C6-O6	-5.35	125.39	128.60
1	A	199	A	OP2-P-O3'	5.35	116.97	105.20
1	A	479	C	C5-C4-N4	5.35	123.94	120.20
1	A	994	A	C4-N9-C1'	-5.35	116.67	126.30
1	A	1077	U	O4'-C1'-N1	5.35	112.48	108.20
1	A	1698	A	C2-N3-C4	5.35	113.27	110.60
1	A	2051	C	C4-C5-C6	-5.35	114.73	117.40
1	A	2886	G	N1-C2-N3	-5.35	120.69	123.90
1	A	2887	G	O3'-P-O5'	5.35	114.16	104.00
1	A	639	U	N1-C2-N3	5.34	118.11	114.90
1	A	1294	G	N9-C4-C5	-5.34	103.26	105.40
1	A	2422	C	N1-C2-O2	5.34	122.11	118.90
1	A	2424	G	N1-C6-O6	-5.34	116.69	119.90
1	A	2586	C	C2-N1-C1'	5.34	124.68	118.80
1	A	2586	C	C5-C6-N1	5.34	123.67	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	a	797	U	N1-C2-O2	5.34	126.54	122.80
1	A	215	G	C4-C5-N7	5.34	112.94	110.80
1	A	1058	U	OP1-P-OP2	-5.34	111.59	119.60
1	A	1633	A	C2-N3-C4	5.34	113.27	110.60
1	A	2265	G	C4-C5-N7	5.34	112.94	110.80
1	A	2439	A	N3-C4-N9	5.34	131.67	127.40
31	a	1352	C	C5-C6-N1	5.34	123.67	121.00
1	A	215	G	N7-C8-N9	5.34	115.77	113.10
1	A	1230	G	N9-C4-C5	-5.34	103.26	105.40
1	A	1607	A	C5-C6-N6	-5.34	119.43	123.70
1	A	2077	C	O5'-C5'-C4'	5.34	121.85	111.70
1	A	2887	G	N9-C4-C5	5.34	107.54	105.40
31	a	412	G	N3-C4-N9	5.34	129.20	126.00
1	A	541	G	N7-C8-N9	5.34	115.77	113.10
31	a	684	A	N7-C8-N9	5.34	116.47	113.80
1	A	434	G	C6-C5-N7	-5.34	127.20	130.40
1	A	638	U	C4-C5-C6	-5.34	116.50	119.70
1	A	1064	A	C4-C5-N7	-5.34	108.03	110.70
1	A	1156	G	N3-C4-C5	-5.34	125.93	128.60
1	A	1294	G	C4-C5-N7	5.34	112.94	110.80
1	A	2696	G	N3-C4-C5	-5.34	125.93	128.60
1	A	174	U	C6-N1-C2	-5.33	117.80	121.00
1	A	2468	C	N3-C2-O2	-5.33	118.17	121.90
1	A	2635	G	N1-C6-O6	-5.33	116.70	119.90
1	A	2827	A	O4'-C1'-N9	5.33	112.47	108.20
1	A	687	G	C8-N9-C4	-5.33	104.27	106.40
1	A	853	G	N1-C2-N3	-5.33	120.70	123.90
1	A	1049	C	O5'-P-OP1	5.33	117.10	110.70
1	A	1700	C	N3-C4-N4	-5.33	114.27	118.00
1	A	2543	G	N1-C6-O6	-5.33	116.70	119.90
31	a	796	U	N3-C2-O2	-5.33	118.47	122.20
1	A	34	U	N1-C2-N3	5.33	118.10	114.90
1	A	379	C	C5-C4-N4	-5.33	116.47	120.20
1	A	541	G	C4-C5-C6	-5.33	115.60	118.80
1	A	543	G	C6-C5-N7	-5.33	127.20	130.40
1	A	806	A	OP1-P-OP2	-5.33	111.60	119.60
1	A	1039	C	C3'-C2'-C1'	5.33	105.77	101.50
1	A	1833	C	N1-C2-N3	5.33	122.93	119.20
1	A	2438	A	C6-C5-N7	-5.33	128.57	132.30
1	A	465	C	C6-N1-C2	-5.33	118.17	120.30
1	A	1460	U	C6-N1-C1'	5.33	128.66	121.20
1	A	2295	A	N9-C1'-C2'	5.33	120.93	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2667	G	C4-C5-C6	-5.33	115.60	118.80
1	A	95	A	C5-N7-C8	-5.33	101.24	103.90
1	A	192	G	C5-C6-N1	5.33	114.16	111.50
1	A	218	G	C6-N1-C2	-5.33	121.90	125.10
1	A	983	G	C5-C6-N1	5.33	114.16	111.50
1	A	1061	G	C2-N3-C4	5.33	114.56	111.90
1	A	1252	A	C8-N9-C1'	-5.33	118.11	127.70
31	a	99	U	N3-C2-O2	-5.33	118.47	122.20
1	A	2314	A	C5-N7-C8	-5.33	101.24	103.90
1	A	2886	G	N1-C6-O6	5.33	123.10	119.90
1	A	1201	G	N9-C4-C5	-5.33	103.27	105.40
1	A	1855	G	N1-C6-O6	-5.33	116.70	119.90
1	A	2276	U	O5'-P-OP1	-5.33	100.91	105.70
1	A	2429	U	C2-N3-C4	5.33	130.19	127.00
1	A	158	G	N3-C4-C5	-5.32	125.94	128.60
1	A	512	A	OP2-P-O3'	5.32	116.91	105.20
1	A	540	G	N3-C2-N2	-5.32	116.17	119.90
1	A	714	G	N9-C4-C5	-5.32	103.27	105.40
1	A	722	A	N1-C2-N3	-5.32	126.64	129.30
1	A	1815	C	N3-C4-C5	-5.32	119.77	121.90
1	A	2496	A	C8-N9-C4	-5.32	103.67	105.80
1	A	2508	G	N9-C4-C5	5.32	107.53	105.40
1	A	1275	A	C5-C6-N6	-5.32	119.44	123.70
1	A	2275	C	O5'-P-OP1	-5.32	100.91	105.70
1	A	2292	U	C2-N3-C4	-5.32	123.81	127.00
31	a	979	C	N1-C2-O2	5.32	122.09	118.90
1	A	134	U	N3-C2-O2	-5.32	118.47	122.20
1	A	1034	A	N3-C4-C5	-5.32	123.08	126.80
1	A	1238	U	C2-N3-C4	-5.32	123.81	127.00
1	A	2047	A	O5'-P-OP2	-5.32	100.91	105.70
1	A	2048	G	N7-C8-N9	5.32	115.76	113.10
1	A	2603	G	N7-C8-N9	5.32	115.76	113.10
1	A	2633	C	N3-C4-C5	5.32	124.03	121.90
1	A	2658	G	OP1-P-OP2	-5.32	111.62	119.60
1	A	158	G	OP1-P-OP2	-5.32	111.62	119.60
1	A	1703	U	C5-C6-N1	5.32	125.36	122.70
1	A	156	A	N1-C6-N6	5.32	121.79	118.60
1	A	422	G	N3-C4-C5	5.32	131.26	128.60
1	A	445	G	C8-N9-C1'	5.32	133.91	127.00
1	A	700	A	C5-C6-N6	-5.32	119.45	123.70
1	A	708	G	C5'-C4'-C3'	5.32	124.51	116.00
1	A	883	C	C2-N3-C4	5.32	122.56	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1888	U	N1-C2-O2	5.32	126.52	122.80
1	A	2064	A	N9-C4-C5	5.32	107.93	105.80
1	A	2095	U	C2-N1-C1'	5.32	124.08	117.70
1	A	2278	G	N7-C8-N9	5.32	115.76	113.10
1	A	2318	U	C6-N1-C2	-5.32	117.81	121.00
1	A	558	A	C4-C5-C6	5.32	119.66	117.00
1	A	1005	G	C6-C5-N7	-5.32	127.21	130.40
1	A	1029	C	C4'-C3'-O3'	5.32	123.63	113.00
1	A	1038	C	N1-C2-N3	5.32	122.92	119.20
1	A	1415	A	N1-C6-N6	-5.32	115.41	118.60
1	A	1447	A	C4-C5-N7	5.32	113.36	110.70
1	A	1698	A	O5'-P-OP2	5.32	117.08	110.70
1	A	1840	U	N1-C2-N3	5.32	118.09	114.90
1	A	2324	C	O4'-C1'-N1	5.32	112.45	108.20
1	A	2375	U	C2-N1-C1'	-5.32	111.32	117.70
1	A	2709	U	C6-N1-C2	-5.32	117.81	121.00
1	A	2829	A	C2-N3-C4	5.32	113.26	110.60
1	A	2897	A	C6-N1-C2	-5.32	115.41	118.60
1	A	1198	G	C6-N1-C2	-5.31	121.91	125.10
1	A	2645	G	C4-N9-C1'	5.31	133.41	126.50
1	A	464	U	N3-C2-O2	-5.31	118.48	122.20
1	A	586	C	N3-C4-C5	-5.31	119.78	121.90
1	A	688	A	C5-C6-N6	-5.31	119.45	123.70
1	A	1799	G	C6-C5-N7	5.31	133.59	130.40
1	A	2861	U	C5-C4-O4	-5.31	122.71	125.90
1	A	125	A	N1-C6-N6	5.31	121.79	118.60
1	A	998	G	C6-C5-N7	5.31	133.59	130.40
1	A	2815	C	O4'-C1'-N1	5.31	112.45	108.20
31	a	970	U	C6-N1-C2	-5.31	117.81	121.00
1	A	235	G	C6-N1-C2	5.31	128.29	125.10
1	A	657	U	N3-C2-O2	-5.31	118.48	122.20
1	A	668	C	C4'-C3'-O3'	5.31	123.62	113.00
1	A	1142	A	C5-C6-N6	-5.31	119.45	123.70
1	A	1365	G	C4-N9-C1'	-5.31	119.60	126.50
1	A	1401	G	C5-N7-C8	-5.31	101.65	104.30
1	A	1977	G	C4-C5-N7	5.31	112.92	110.80
1	A	2501	U	C6-N1-C1'	-5.31	113.77	121.20
31	a	722	G	C6-C5-N7	-5.31	127.22	130.40
1	A	27	G	OP2-P-O3'	5.31	116.88	105.20
1	A	493	A	N9-C1'-C2'	5.31	120.90	114.00
1	A	958	U	O4'-C1'-N1	5.31	112.45	108.20
1	A	1189	C	C5-C6-N1	5.31	123.65	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2456	G	P-O3'-C3'	5.31	126.07	119.70
1	A	2661	A	OP1-P-O3'	5.31	116.88	105.20
31	a	1053	U	C5-C6-N1	5.31	125.35	122.70
1	A	263	G	C4-C5-N7	5.30	112.92	110.80
1	A	492	G	O5'-P-OP1	-5.30	100.93	105.70
1	A	1267	A	N1-C6-N6	-5.30	115.42	118.60
1	A	1298	G	N3-C4-C5	-5.30	125.95	128.60
1	A	2070	C	N1-C2-O2	5.30	122.08	118.90
1	A	2619	G	N3-C4-N9	5.30	129.18	126.00
1	A	52	A	N9-C1'-C2'	5.30	120.89	114.00
1	A	541	G	N3-C4-N9	-5.30	122.82	126.00
1	A	545	G	C4-N9-C1'	-5.30	119.61	126.50
1	A	648	G	C1'-O4'-C4'	-5.30	105.66	109.90
1	A	1259	U	OP1-P-OP2	-5.30	111.65	119.60
1	A	474	A	C8-N9-C1'	5.30	137.24	127.70
1	A	647	G	O3'-P-O5'	5.30	114.07	104.00
1	A	1285	A	O4'-C1'-N9	5.30	112.44	108.20
1	A	2487	U	N1-C2-N3	5.30	118.08	114.90
1	A	457	G	C5-C6-O6	-5.30	125.42	128.60
1	A	493	A	N9-C4-C5	5.30	107.92	105.80
1	A	518	A	N3-C4-N9	-5.30	123.16	127.40
1	A	646	A	N9-C4-C5	5.30	107.92	105.80
1	A	893	G	C2'-C3'-O3'	5.30	122.18	113.70
1	A	1193	U	C6-N1-C1'	5.30	128.62	121.20
1	A	1229	G	N1-C6-O6	-5.30	116.72	119.90
1	A	1696	C	OP2-P-O3'	-5.30	93.54	105.20
1	A	2424	G	C8-N9-C1'	5.30	133.89	127.00
1	A	1160	C	N3-C2-O2	-5.30	118.19	121.90
1	A	626	G	C4'-C3'-O3'	5.30	123.59	113.00
1	A	986	G	N1-C6-O6	-5.30	116.72	119.90
1	A	2256	U	C6-N1-C2	-5.30	117.82	121.00
1	A	2527	U	N3-C2-O2	5.30	125.91	122.20
1	A	2898	U	C6-N1-C1'	-5.30	113.78	121.20
1	A	192	G	C5-N7-C8	-5.29	101.65	104.30
1	A	467	U	C5-C6-N1	5.29	125.35	122.70
1	A	718	C	C6-N1-C1'	5.29	127.15	120.80
1	A	1355	A	C4-C5-C6	-5.29	114.35	117.00
1	A	1950	U	C5-C6-N1	5.29	125.35	122.70
1	A	2850	G	N7-C8-N9	-5.29	110.45	113.10
31	a	586	C	C2-N1-C1'	5.29	124.62	118.80
1	A	243	U	N3-C4-O4	-5.29	115.70	119.40
1	A	422	G	C2-N3-C4	-5.29	109.25	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	850	G	N7-C8-N9	5.29	115.75	113.10
1	A	2133	G	C8-N9-C1'	5.29	133.88	127.00
31	a	98	U	C5-C6-N1	5.29	125.35	122.70
31	a	1451	G	C2-N3-C4	5.29	114.55	111.90
1	A	470	G	C6-C5-N7	5.29	133.57	130.40
1	A	601	G	C8-N9-C4	-5.29	104.28	106.40
1	A	1817	C	N1-C2-N3	5.29	122.90	119.20
1	A	2438	A	C5-N7-C8	-5.29	101.25	103.90
1	A	67	G	C6-N1-C2	-5.29	121.93	125.10
1	A	119	U	N3-C2-O2	-5.29	118.50	122.20
1	A	870	C	OP1-P-O3'	5.29	116.84	105.20
1	A	2396	A	P-O3'-C3'	5.29	126.05	119.70
31	a	819	C	N3-C2-O2	-5.29	118.20	121.90
1	A	1338	U	C2-N3-C4	-5.29	123.83	127.00
1	A	194	A	C4-N9-C1'	-5.29	116.79	126.30
1	A	218	G	OP2-P-O3'	5.29	116.83	105.20
1	A	777	C	C6-N1-C2	-5.29	118.19	120.30
1	A	854	G	N3-C4-N9	5.29	129.17	126.00
1	A	915	U	N1-C2-O2	5.29	126.50	122.80
1	A	1378	U	N1-C2-N3	5.29	118.07	114.90
1	A	1704	C	N3-C4-N4	-5.29	114.30	118.00
1	A	2272	U	N3-C4-C5	5.29	117.77	114.60
1	A	2369	C	N3-C2-O2	-5.29	118.20	121.90
1	A	2699	U	N3-C2-O2	-5.29	118.50	122.20
31	a	154	U	N3-C2-O2	-5.29	118.50	122.20
31	a	336	C	C5-C6-N1	5.29	123.64	121.00
1	A	211	C	N1-C2-N3	5.28	122.90	119.20
1	A	568	C	C6-N1-C1'	-5.28	114.46	120.80
1	A	627	C	OP2-P-O3'	-5.28	93.58	105.20
1	A	851	C	N3-C2-O2	-5.28	118.20	121.90
1	A	1162	C	N3-C4-N4	-5.28	114.30	118.00
1	A	1254	C	C6-N1-C1'	-5.28	114.46	120.80
1	A	2368	G	N3-C2-N2	-5.28	116.20	119.90
31	a	1030	G	C4-N9-C1'	5.28	133.37	126.50
1	A	595	G	C5-N7-C8	5.28	106.94	104.30
1	A	2295	A	C6-N1-C2	-5.28	115.43	118.60
1	A	2751	U	OP1-P-O3'	5.28	116.82	105.20
1	A	1733	A	C4-C5-N7	5.28	113.34	110.70
1	A	1817	C	C5-C6-N1	5.28	123.64	121.00
1	A	2493	C	N3-C2-O2	-5.28	118.20	121.90
1	A	2613	C	C5-C4-N4	-5.28	116.50	120.20
1	A	2437	G	C5-C6-N1	5.28	114.14	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2453	A	C5'-C4'-O4'	5.28	115.44	109.10
31	a	1505	G	C6-C5-N7	-5.28	127.23	130.40
1	A	124	A	O4'-C1'-N9	-5.28	103.98	108.20
1	A	224	A	C2-N3-C4	-5.28	107.96	110.60
1	A	576	U	N1-C2-O2	5.28	126.49	122.80
1	A	1027	A	O5'-P-OP1	-5.28	100.95	105.70
1	A	1219	G	N3-C4-C5	5.28	131.24	128.60
1	A	1493	U	O4'-C1'-N1	-5.28	103.98	108.20
1	A	2102	U	C2-N3-C4	-5.28	123.83	127.00
1	A	2290	C	N1-C2-O2	5.28	122.07	118.90
1	A	2319	U	C6-N1-C1'	-5.28	113.81	121.20
1	A	2450	U	C4-C5-C6	5.28	122.87	119.70
1	A	2856	U	O4'-C4'-C3'	-5.28	98.72	104.00
31	a	195	C	N3-C2-O2	-5.28	118.21	121.90
31	a	1188	G	C4-N9-C1'	5.28	133.36	126.50
1	A	25	U	C6-N1-C2	-5.28	117.83	121.00
1	A	861	C	OP1-P-O3'	5.28	116.81	105.20
1	A	1034	A	C3'-C2'-C1'	5.28	105.72	101.50
1	A	120	G	N3-C4-N9	5.27	129.16	126.00
1	A	2346	U	N1-C1'-C2'	5.27	120.86	114.00
31	a	1159	C	N1-C2-O2	5.27	122.06	118.90
1	A	75	G	N3-C2-N2	-5.27	116.21	119.90
1	A	820	G	N3-C4-C5	-5.27	125.96	128.60
1	A	859	C	C4'-C3'-O3'	5.27	123.55	113.00
1	A	2440	G	C4-C5-C6	5.27	121.96	118.80
1	A	2476	U	N1-C2-N3	5.27	118.06	114.90
31	a	250	C	C6-N1-C2	-5.27	118.19	120.30
1	A	608	C	P-O5'-C5'	5.27	129.33	120.90
1	A	866	A	C5-C6-N1	5.27	120.33	117.70
1	A	1069	G	N3-C4-N9	5.27	129.16	126.00
1	A	2487	U	C5-C6-N1	-5.27	120.06	122.70
31	a	548	G	C5-N7-C8	-5.27	101.66	104.30
31	a	1459	C	C2-N1-C1'	5.27	124.60	118.80
1	A	460	C	N3-C2-O2	-5.27	118.21	121.90
1	A	566	U	C2-N3-C4	-5.27	123.84	127.00
1	A	874	A	C4-N9-C1'	5.27	135.79	126.30
1	A	1257	G	C8-N9-C1'	-5.27	120.15	127.00
1	A	1868	U	N3-C2-O2	-5.27	118.51	122.20
1	A	2273	G	O5'-P-OP2	-5.27	100.96	105.70
1	A	2445	A	C5-C6-N1	5.27	120.33	117.70
1	A	218	G	C5-C6-N1	5.27	114.13	111.50
1	A	426	G	C5-C6-O6	5.27	131.76	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	518	A	C4-C5-C6	-5.27	114.37	117.00
1	A	657	U	C2-N1-C1'	5.27	124.02	117.70
1	A	961	G	OP1-P-O3'	5.27	116.79	105.20
1	A	989	A	N1-C6-N6	-5.27	115.44	118.60
1	A	1389	U	C5-C6-N1	5.27	125.33	122.70
1	A	2065	G	O5'-C5'-C4'	5.27	121.71	111.70
1	A	2111	C	N3-C4-C5	5.27	124.01	121.90
1	A	2594	G	N1-C2-N2	-5.27	111.46	116.20
1	A	95	A	N3-C4-N9	5.27	131.61	127.40
1	A	2378	G	N3-C2-N2	5.27	123.59	119.90
1	A	375	A	C4-N9-C1'	5.26	135.78	126.30
1	A	826	A	N1-C6-N6	-5.26	115.44	118.60
1	A	837	G	N3-C4-N9	5.26	129.16	126.00
1	A	1287	U	N1-C2-N3	-5.26	111.74	114.90
1	A	1469	G	C6-C5-N7	-5.26	127.24	130.40
1	A	1607	A	C6-N1-C2	-5.26	115.44	118.60
1	A	1197	C	N1-C1'-C2'	5.26	120.84	114.00
1	A	1815	C	C2-N1-C1'	5.26	124.59	118.80
1	A	1816	A	C4-N9-C1'	5.26	135.77	126.30
1	A	485	A	C5-N7-C8	-5.26	101.27	103.90
1	A	1697	G	N9-C1'-C2'	-5.26	106.21	112.00
1	A	2079	G	N3-C4-N9	5.26	129.16	126.00
1	A	2271	U	C2-N3-C4	-5.26	123.84	127.00
1	A	2375	U	C6-N1-C1'	5.26	128.57	121.20
1	A	688	A	N9-C4-C5	-5.26	103.70	105.80
1	A	1023	A	N1-C6-N6	-5.26	115.44	118.60
1	A	1813	A	OP1-P-OP2	-5.26	111.71	119.60
1	A	2841	A	O5'-P-OP1	-5.26	100.97	105.70
1	A	2888	A	C2-N3-C4	5.26	113.23	110.60
1	A	1738	C	C2-N3-C4	-5.26	117.27	119.90
1	A	1913	U	N3-C2-O2	-5.26	118.52	122.20
1	A	69	C	N1-C1'-C2'	5.26	120.83	114.00
1	A	346	A	O4'-C1'-N9	5.26	112.40	108.20
1	A	356	A	C5-C6-N6	-5.26	119.50	123.70
1	A	706	U	N3-C2-O2	-5.26	118.52	122.20
1	A	1070	A	N3-C4-N9	5.26	131.61	127.40
1	A	515	G	N1-C2-N2	-5.25	111.47	116.20
1	A	1455	U	C2-N1-C1'	5.25	124.01	117.70
1	A	2572	G	C2-N3-C4	5.25	114.53	111.90
1	A	420	A	C4-N9-C1'	5.25	135.76	126.30
1	A	707	G	C4'-C3'-C2'	-5.25	97.35	102.60
1	A	921	C	N1-C2-O2	5.25	122.05	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1251	A	C6-N1-C2	-5.25	115.45	118.60
1	A	2097	G	C4-C5-N7	5.25	112.90	110.80
1	A	2351	U	C2-N3-C4	-5.25	123.85	127.00
1	A	2395	C	C6-N1-C1'	5.25	127.11	120.80
1	A	2643	C	N1-C2-N3	-5.25	115.52	119.20
1	A	2886	G	C6-N1-C2	5.25	128.25	125.10
31	a	18	U	N1-C2-O2	5.25	126.48	122.80
1	A	753	U	N1-C2-O2	5.25	126.48	122.80
1	A	914	G	N3-C4-C5	5.25	131.23	128.60
1	A	2050	A	OP1-P-OP2	-5.25	111.72	119.60
1	A	2623	U	N3-C2-O2	-5.25	118.53	122.20
31	a	601	U	N3-C2-O2	-5.25	118.52	122.20
1	A	122	G	N1-C6-O6	-5.25	116.75	119.90
1	A	1040	A	C2-N3-C4	-5.25	107.97	110.60
1	A	2334	G	C4-N9-C1'	-5.25	119.67	126.50
1	A	2806	U	C5'-C4'-C3'	-5.25	107.60	116.00
1	A	94	A	C5-C6-N1	5.25	120.32	117.70
1	A	576	U	N3-C4-C5	-5.25	111.45	114.60
1	A	818	U	C2-N3-C4	-5.25	123.85	127.00
1	A	884	U	O5'-P-OP1	5.25	117.00	110.70
1	A	1250	G	C2-N3-C4	5.25	114.52	111.90
1	A	2651	G	N1-C2-N3	5.25	127.05	123.90
1	A	2745	G	N3-C4-C5	-5.25	125.97	128.60
31	a	571	A	N9-C4-C5	-5.25	103.70	105.80
1	A	909	G	N3-C4-C5	-5.25	125.98	128.60
1	A	972	A	C4-C5-N7	5.25	113.32	110.70
1	A	1180	G	N3-C2-N2	5.25	123.57	119.90
1	A	1859	C	C5-C6-N1	5.25	123.62	121.00
1	A	2632	U	N3-C4-O4	-5.25	115.73	119.40
1	A	489	A	OP1-P-OP2	-5.25	111.73	119.60
1	A	953	C	C4-C5-C6	5.25	120.02	117.40
1	A	1042	C	C2-N1-C1'	5.25	124.57	118.80
1	A	1086	G	C8-N9-C4	5.25	108.50	106.40
1	A	2554	C	C2-N3-C4	5.25	122.52	119.90
31	a	99	U	N1-C2-O2	5.25	126.47	122.80
1	A	372	A	OP1-P-OP2	-5.24	111.73	119.60
1	A	498	G	C5-C6-O6	5.24	131.75	128.60
1	A	886	A	C5-C6-N6	-5.24	119.50	123.70
1	A	1069	G	N3-C2-N2	5.24	123.57	119.90
1	A	1259	U	P-O3'-C3'	5.24	125.99	119.70
1	A	2635	G	C5-C6-N1	5.24	114.12	111.50
1	A	506	A	C6-C5-N7	-5.24	128.63	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	957	C	C5-C4-N4	5.24	123.87	120.20
1	A	184	C	C2-N1-C1'	-5.24	113.04	118.80
1	A	282	A	C8-N9-C4	-5.24	103.70	105.80
1	A	303	G	C8-N9-C4	-5.24	104.30	106.40
1	A	659	A	O4'-C1'-N9	5.24	112.39	108.20
1	A	969	A	C4-C5-C6	-5.24	114.38	117.00
1	A	993	C	C5-C4-N4	-5.24	116.53	120.20
1	A	1042	C	OP1-P-O3'	5.24	116.73	105.20
1	A	1316	G	C8-N9-C4	-5.24	104.30	106.40
1	A	2092	C	C6-N1-C1'	5.24	127.09	120.80
1	A	2778	G	N3-C2-N2	-5.24	116.23	119.90
1	A	2796	C	N3-C2-O2	-5.24	118.23	121.90
1	A	2914	A	C4-C5-C6	5.24	119.62	117.00
31	a	743	C	C6-N1-C1'	-5.24	114.51	120.80
31	a	919	C	C6-N1-C2	-5.24	118.20	120.30
1	A	502	C	C6-N1-C2	-5.24	118.20	120.30
1	A	543	G	C5-N7-C8	-5.24	101.68	104.30
1	A	1292	A	C2-N3-C4	5.24	113.22	110.60
1	A	1674	U	N3-C2-O2	-5.24	118.53	122.20
1	A	1826	G	C5-C6-N1	5.24	114.12	111.50
1	A	2274	A	OP1-P-OP2	5.24	127.46	119.60
1	A	2432	G	C4-N9-C1'	-5.24	119.69	126.50
1	A	2540	A	O5'-P-OP2	-5.24	100.98	105.70
1	A	1051	C	C5-C6-N1	5.24	123.62	121.00
1	A	2823	G	N3-C4-C5	-5.24	125.98	128.60
1	A	2887	G	C5-N7-C8	5.24	106.92	104.30
31	a	778	C	N1-C2-O2	5.24	122.04	118.90
1	A	236	A	OP1-P-OP2	-5.24	111.75	119.60
1	A	988	C	C6-N1-C2	-5.24	118.21	120.30
1	A	1631	G	C2-N3-C4	5.24	114.52	111.90
1	A	1857	C	C4-C5-C6	-5.24	114.78	117.40
1	A	488	G	O3'-P-O5'	5.23	113.94	104.00
1	A	2357	G	C8-N9-C4	-5.23	104.31	106.40
1	A	68	A	C4-C5-N7	5.23	113.32	110.70
1	A	866	A	N3-C4-C5	-5.23	123.14	126.80
1	A	978	A	N1-C6-N6	5.23	121.74	118.60
1	A	1029	C	OP1-P-O3'	5.23	116.71	105.20
1	A	1487	G	C2-N3-C4	5.23	114.52	111.90
1	A	2028	A	N1-C6-N6	-5.23	115.46	118.60
1	A	2408	C	C6-N1-C2	-5.23	118.21	120.30
1	A	2449	C	C2-N1-C1'	5.23	124.56	118.80
1	A	2486	A	C6-N1-C2	-5.23	115.46	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2550	G	N9-C4-C5	5.23	107.49	105.40
1	A	2595	C	C5'-C4'-O4'	5.23	115.38	109.10
31	a	1071	U	N1-C2-O2	5.23	126.46	122.80
31	a	1479	A	N7-C8-N9	5.23	116.42	113.80
1	A	558	A	OP1-P-OP2	-5.23	111.75	119.60
1	A	990	G	C2-N3-C4	-5.23	109.28	111.90
1	A	991	A	N3-C4-C5	-5.23	123.14	126.80
1	A	1016	G	N9-C1'-C2'	5.23	120.80	114.00
1	A	1957	G	N3-C2-N2	-5.23	116.24	119.90
1	A	2062	G	N1-C6-O6	5.23	123.04	119.90
1	A	2382	C	C5-C6-N1	5.23	123.62	121.00
1	A	2762	G	O4'-C1'-N9	5.23	112.38	108.20
2	B	75	U	C5-C6-N1	5.23	125.31	122.70
1	A	1366	U	O4'-C1'-N1	5.23	112.38	108.20
1	A	1957	G	C8-N9-C1'	5.23	133.80	127.00
31	a	1173	G	C5-N7-C8	-5.23	101.69	104.30
1	A	38	A	C5-C6-N6	-5.23	119.52	123.70
1	A	194	A	C8-N9-C4	-5.23	103.71	105.80
1	A	376	A	C6-C5-N7	5.23	135.96	132.30
1	A	1777	G	C5-N7-C8	-5.23	101.69	104.30
1	A	2223	C	C6-N1-C1'	-5.23	114.53	120.80
1	A	2815	C	C6-N1-C1'	5.23	127.07	120.80
1	A	2830	A	O3'-P-O5'	5.23	113.93	104.00
1	A	1026	C	C2-N1-C1'	5.23	124.55	118.80
1	A	2650	G	N9-C4-C5	-5.23	103.31	105.40
1	A	344	U	O4'-C1'-N1	5.22	112.38	108.20
1	A	520	G	N1-C2-N3	5.22	127.03	123.90
1	A	1028	G	N1-C2-N3	-5.22	120.77	123.90
1	A	1050	C	C2-N3-C4	5.22	122.51	119.90
1	A	1822	C	C6-N1-C2	-5.22	118.21	120.30
1	A	2076	A	N9-C4-C5	5.22	107.89	105.80
1	A	2474	G	C8-N9-C1'	-5.22	120.21	127.00
1	A	2903	A	N9-C4-C5	-5.22	103.71	105.80
31	a	1465	G	C4-C5-N7	5.22	112.89	110.80
1	A	873	U	OP1-P-O3'	-5.22	93.71	105.20
1	A	1092	A	C8-N9-C1'	-5.22	118.30	127.70
1	A	1220	A	C5-C6-N1	5.22	120.31	117.70
1	A	1320	G	C5-C6-O6	-5.22	125.47	128.60
1	A	1667	G	C5-C6-N1	5.22	114.11	111.50
1	A	2472	G	OP2-P-O3'	5.22	116.69	105.20
1	A	2478	A	N3-C4-C5	-5.22	123.14	126.80
1	A	2554	C	N3-C4-N4	5.22	121.66	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2627	A	N9-C4-C5	-5.22	103.71	105.80
31	a	354	G	C4-C5-N7	5.22	112.89	110.80
1	A	243	U	N3-C4-C5	5.22	117.73	114.60
1	A	490	C	C5'-C4'-O4'	5.22	115.37	109.10
1	A	567	G	N1-C2-N3	-5.22	120.77	123.90
1	A	852	U	OP2-P-O3'	5.22	116.69	105.20
1	A	1357	G	C2-N3-C4	5.22	114.51	111.90
1	A	2566	C	C6-N1-C1'	5.22	127.06	120.80
1	A	866	A	C4-N9-C1'	5.22	135.69	126.30
1	A	2313	A	C4-C5-C6	-5.22	114.39	117.00
1	A	2381	A	OP2-P-O3'	-5.22	93.72	105.20
31	a	532	G	C4-N9-C1'	5.22	133.29	126.50
31	a	1187	G	C8-N9-C1'	-5.22	120.22	127.00
1	A	484	U	C6-N1-C2	-5.22	117.87	121.00
1	A	522	G	C6-N1-C2	-5.22	121.97	125.10
1	A	1065	A	N3-C4-N9	-5.22	123.22	127.40
1	A	2544	C	C4'-C3'-O3'	5.22	123.44	113.00
1	A	340	C	C6-N1-C2	-5.22	118.21	120.30
1	A	494	U	OP1-P-OP2	-5.22	111.78	119.60
1	A	543	G	N3-C4-C5	5.22	131.21	128.60
1	A	825	G	C8-N9-C4	5.22	108.49	106.40
1	A	1290	G	C6-N1-C2	-5.22	121.97	125.10
1	A	1826	G	C8-N9-C4	-5.22	104.31	106.40
1	A	2079	G	OP2-P-O3'	5.22	116.67	105.20
1	A	68	A	C8-N9-C1'	5.21	137.09	127.70
1	A	180	G	C5-N7-C8	-5.21	101.69	104.30
1	A	348	C	C5-C6-N1	5.21	123.61	121.00
1	A	1142	A	N1-C6-N6	5.21	121.73	118.60
1	A	2084	G	N1-C2-N2	-5.21	111.51	116.20
1	A	2317	G	C6-N1-C2	-5.21	121.97	125.10
1	A	2546	U	C5'-C4'-O4'	-5.21	102.84	109.10
31	a	283	G	N7-C8-N9	5.21	115.71	113.10
31	a	511	A	C2-N3-C4	5.21	113.21	110.60
1	A	649	U	C3'-C2'-C1'	5.21	105.67	101.50
1	A	1417	G	C4-C5-N7	5.21	112.89	110.80
1	A	1732	U	C6-N1-C2	-5.21	117.87	121.00
31	a	42	G	N9-C4-C5	-5.21	103.31	105.40
31	a	422	A	C2-N3-C4	5.21	113.21	110.60
1	A	410	G	C8-N9-C4	-5.21	104.32	106.40
1	A	810	A	N7-C8-N9	5.21	116.41	113.80
1	A	1001	A	OP1-P-OP2	-5.21	111.78	119.60
1	A	1023	A	C4'-C3'-O3'	5.21	123.42	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2053	U	OP2-P-O3'	5.21	116.66	105.20
1	A	2088	G	O4'-C1'-N9	5.21	112.37	108.20
1	A	2303	G	N1-C6-O6	-5.21	116.77	119.90
1	A	2426	G	C5-C6-N1	5.21	114.11	111.50
31	a	576	G	N3-C2-N2	-5.21	116.25	119.90
1	A	576	U	C5-C4-O4	5.21	129.03	125.90
1	A	925	G	C6-C5-N7	-5.21	127.27	130.40
1	A	2481	G	C5-C6-N1	-5.21	108.89	111.50
31	a	1293	C	N3-C2-O2	-5.21	118.25	121.90
1	A	347	U	N3-C2-O2	-5.21	118.55	122.20
1	A	377	U	P-O3'-C3'	5.21	125.95	119.70
1	A	460	C	C5-C4-N4	-5.21	116.55	120.20
1	A	878	C	N3-C2-O2	-5.21	118.25	121.90
1	A	2482	G	C6-N1-C2	-5.21	121.97	125.10
1	A	2804	G	C6-C5-N7	5.21	133.53	130.40
1	A	534	G	C5-N7-C8	-5.21	101.70	104.30
1	A	593	U	N1-C2-N3	5.21	118.02	114.90
1	A	673	G	N3-C4-N9	5.21	129.12	126.00
1	A	2092	C	C4-C5-C6	5.21	120.00	117.40
1	A	2276	U	P-O3'-C3'	5.21	125.95	119.70
1	A	688	A	C5-N7-C8	-5.21	101.30	103.90
1	A	1429	G	C2-N3-C4	-5.21	109.30	111.90
31	a	1261	A	C5-N7-C8	-5.21	101.30	103.90
1	A	21	A	N9-C4-C5	-5.20	103.72	105.80
1	A	1188	A	O3'-P-O5'	5.20	113.89	104.00
1	A	1606	C	N3-C4-C5	5.20	123.98	121.90
1	A	2741	G	C8-N9-C4	-5.20	104.32	106.40
1	A	2838	C	N3-C4-N4	-5.20	114.36	118.00
1	A	2894	C	C5-C6-N1	5.20	123.60	121.00
2	B	88	G	C4-N9-C1'	5.20	133.27	126.50
31	a	636	G	N1-C2-N2	-5.20	111.52	116.20
1	A	1283	G	N1-C2-N3	-5.20	120.78	123.90
1	A	2266	G	C5-C6-O6	-5.20	125.48	128.60
1	A	2373	A	C6-N1-C2	-5.20	115.48	118.60
1	A	276	C	N1-C2-O2	-5.20	115.78	118.90
1	A	369	G	N3-C2-N2	-5.20	116.26	119.90
1	A	600	U	C6-N1-C2	5.20	124.12	121.00
1	A	628	G	N7-C8-N9	5.20	115.70	113.10
1	A	1194	U	C6-N1-C1'	-5.20	113.92	121.20
1	A	1603	U	N1-C2-O2	5.20	126.44	122.80
1	A	1841	G	C8-N9-C4	-5.20	104.32	106.40
1	A	2059	G	N7-C8-N9	-5.20	110.50	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2322	C	N3-C4-C5	5.20	123.98	121.90
31	a	667	C	C6-N1-C2	-5.20	118.22	120.30
1	A	159	U	N1-C2-O2	5.20	126.44	122.80
1	A	1028	G	N9-C4-C5	-5.20	103.32	105.40
1	A	1207	G	C8-N9-C4	-5.20	104.32	106.40
1	A	1228	A	OP1-P-OP2	-5.20	111.80	119.60
1	A	2310	C	O4'-C1'-N1	5.20	112.36	108.20
1	A	2750	C	N1-C2-N3	5.20	122.84	119.20
1	A	35	G	N1-C6-O6	-5.20	116.78	119.90
1	A	1934	G	C8-N9-C1'	-5.20	120.24	127.00
1	A	610	U	C6-N1-C2	-5.20	117.88	121.00
1	A	2342	U	C5-C4-O4	-5.20	122.78	125.90
2	B	16	A	N1-C2-N3	-5.20	126.70	129.30
31	a	217	G	C4-N9-C1'	-5.20	119.75	126.50
31	a	819	C	C2-N1-C1'	5.20	124.51	118.80
1	A	609	U	C2-N3-C4	-5.19	123.88	127.00
1	A	661	U	C2-N1-C1'	5.19	123.93	117.70
1	A	704	U	C4-C5-C6	5.19	122.82	119.70
31	a	263	G	N1-C6-O6	-5.19	116.78	119.90
1	A	408	U	C6-N1-C2	-5.19	117.88	121.00
1	A	535	G	N1-C2-N3	5.19	127.02	123.90
1	A	609	U	C5-C6-N1	-5.19	120.10	122.70
1	A	1350	U	N1-C2-N3	5.19	118.02	114.90
1	A	1494	G	N3-C4-N9	-5.19	122.89	126.00
1	A	2524	A	OP1-P-OP2	-5.19	111.81	119.60
1	A	115	C	O4'-C1'-N1	5.19	112.35	108.20
1	A	534	G	N3-C4-C5	-5.19	126.00	128.60
1	A	1191	U	N1-C2-O2	5.19	126.43	122.80
1	A	1290	G	N3-C4-N9	5.19	129.12	126.00
1	A	1801	C	C5-C4-N4	5.19	123.83	120.20
1	A	2048	G	C4-N9-C1'	5.19	133.25	126.50
1	A	2469	C	N3-C2-O2	-5.19	118.27	121.90
31	a	1389	G	N3-C4-N9	5.19	129.11	126.00
1	A	221	G	O4'-C1'-N9	5.19	112.35	108.20
1	A	2017	C	N3-C2-O2	-5.19	118.27	121.90
1	A	2434	A	C2-N3-C4	-5.19	108.00	110.60
1	A	2517	G	N1-C2-N3	5.19	127.01	123.90
1	A	222	A	N7-C8-N9	5.19	116.39	113.80
1	A	295	G	N9-C4-C5	5.19	107.47	105.40
1	A	736	C	C6-N1-C2	-5.19	118.22	120.30
1	A	1086	G	O4'-C1'-N9	5.19	112.35	108.20
1	A	1696	C	C2-N1-C1'	5.19	124.51	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2033	C	C2-N1-C1'	5.19	124.50	118.80
1	A	2620	U	C2-N3-C4	-5.19	123.89	127.00
1	A	2235	A	N1-C2-N3	-5.19	126.71	129.30
1	A	2652	G	C2-N3-C4	5.19	114.49	111.90
31	a	358	G	N3-C2-N2	-5.19	116.27	119.90
1	A	1029	C	O5'-P-OP2	5.18	116.92	110.70
1	A	1732	U	N3-C2-O2	-5.18	118.57	122.20
1	A	2758	G	N9-C4-C5	5.18	107.47	105.40
1	A	2806	U	N3-C4-O4	5.18	123.03	119.40
31	a	1063	U	C2-N1-C1'	5.18	123.92	117.70
1	A	48	G	N9-C4-C5	5.18	107.47	105.40
1	A	152	C	C4-C5-C6	-5.18	114.81	117.40
1	A	353	A	OP1-P-O3'	5.18	116.60	105.20
1	A	421	C	N3-C4-C5	-5.18	119.83	121.90
1	A	509	G	C5-C6-N1	5.18	114.09	111.50
1	A	634	C	C4'-C3'-C2'	-5.18	97.42	102.60
1	A	1181	G	C5'-C4'-C3'	5.18	124.29	116.00
1	A	2298	G	N1-C6-O6	-5.18	116.79	119.90
31	a	72	C	C6-N1-C2	-5.18	118.23	120.30
31	a	1304	U	N3-C2-O2	-5.18	118.57	122.20
1	A	235	G	P-O3'-C3'	5.18	125.92	119.70
1	A	665	G	O4'-C1'-N9	-5.18	104.06	108.20
1	A	669	C	O5'-C5'-C4'	5.18	121.54	111.70
1	A	783	G	N3-C4-C5	-5.18	126.01	128.60
1	A	1826	G	C6-N1-C2	-5.18	121.99	125.10
1	A	2064	A	O5'-P-OP1	5.18	116.92	110.70
1	A	2269	G	C8-N9-C4	-5.18	104.33	106.40
31	a	988	C	C5-C6-N1	5.18	123.59	121.00
1	A	555	C	P-O3'-C3'	5.18	125.92	119.70
1	A	577	A	N1-C6-N6	-5.18	115.49	118.60
1	A	996	G	N3-C4-C5	5.18	131.19	128.60
1	A	1183	G	C5-N7-C8	-5.18	101.71	104.30
1	A	1932	C	C6-N1-C2	-5.18	118.23	120.30
1	A	2675	G	N1-C2-N3	-5.18	120.79	123.90
1	A	643	G	OP2-P-O3'	5.18	116.59	105.20
1	A	918	G	C4-C5-N7	5.18	112.87	110.80
1	A	290	U	C6-N1-C2	-5.18	117.89	121.00
1	A	387	G	C4-N9-C1'	5.18	133.23	126.50
1	A	694	G	OP1-P-O3'	5.18	116.59	105.20
1	A	1042	C	C4'-C3'-O3'	5.18	123.36	113.00
1	A	1062	U	N1-C2-N3	5.18	118.01	114.90
1	A	1982	U	C6-N1-C2	5.18	124.11	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2618	C	C5-C6-N1	5.18	123.59	121.00
1	A	2721	G	N1-C6-O6	-5.18	116.79	119.90
1	A	2886	G	C4-N9-C1'	5.18	133.23	126.50
1	A	227	G	N1-C2-N2	-5.17	111.54	116.20
1	A	295	G	C5-C6-O6	5.17	131.70	128.60
1	A	1300	G	C6-N1-C2	-5.17	122.00	125.10
1	A	2011	U	C5-C4-O4	5.17	129.00	125.90
1	A	2274	A	N3-C4-N9	5.17	131.54	127.40
1	A	2320	C	OP2-P-O3'	5.17	116.59	105.20
1	A	424	C	C5-C6-N1	-5.17	118.41	121.00
1	A	891	A	C5-C6-N6	-5.17	119.56	123.70
1	A	2025	A	OP1-P-OP2	-5.17	111.84	119.60
1	A	2569	A	N7-C8-N9	5.17	116.39	113.80
31	a	362	G	C4-N9-C1'	5.17	133.22	126.50
1	A	557	G	C5'-C4'-O4'	5.17	115.31	109.10
1	A	631	U	OP1-P-O3'	5.17	116.58	105.20
1	A	1022	G	N9-C4-C5	-5.17	103.33	105.40
1	A	1224	U	N1-C2-N3	5.17	118.00	114.90
1	A	1716	C	N3-C4-C5	5.17	123.97	121.90
1	A	2710	C	C6-N1-C2	-5.17	118.23	120.30
31	a	1086	U	N3-C2-O2	-5.17	118.58	122.20
1	A	40	U	N3-C2-O2	-5.17	118.58	122.20
1	A	1065	A	C5-C6-N6	-5.17	119.57	123.70
1	A	1248	U	C6-N1-C1'	5.17	128.44	121.20
1	A	1644	C	C6-N1-C2	-5.17	118.23	120.30
1	A	2057	A	N3-C4-C5	-5.17	123.18	126.80
1	A	2068	U	C2-N3-C4	-5.17	123.90	127.00
1	A	2300	A	C5-C6-N1	5.17	120.28	117.70
1	A	2669	G	N1-C2-N3	5.17	127.00	123.90
1	A	87	U	C5-C4-O4	5.17	129.00	125.90
1	A	1263	A	N9-C1'-C2'	5.17	120.72	114.00
1	A	1395	G	C8-N9-C1'	-5.17	120.28	127.00
1	A	1704	C	N1-C2-N3	5.17	122.82	119.20
2	B	7	G	C6-C5-N7	-5.17	127.30	130.40
1	A	20	C	C5-C6-N1	-5.17	118.42	121.00
1	A	1023	A	C3'-C2'-C1'	-5.17	97.37	101.50
1	A	1174	U	OP1-P-OP2	-5.17	111.85	119.60
1	A	2008	A	N3-C4-C5	5.17	130.42	126.80
1	A	2526	C	C5-C4-N4	-5.17	116.58	120.20
1	A	222	A	N9-C4-C5	5.16	107.86	105.80
1	A	358	G	N3-C2-N2	-5.16	116.28	119.90
1	A	409	G	P-O3'-C3'	5.16	125.89	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	487	U	C6-N1-C1'	-5.16	113.97	121.20
1	A	552	A	C4-C5-N7	5.16	113.28	110.70
1	A	857	C	O4'-C1'-N1	5.16	112.33	108.20
1	A	917	U	N1-C2-N3	5.16	118.00	114.90
1	A	973	A	O5'-P-OP1	-5.16	101.05	105.70
1	A	1262	U	OP2-P-O3'	5.16	116.56	105.20
1	A	1264	A	O4'-C1'-N9	5.16	112.33	108.20
1	A	1516	C	C5-C6-N1	5.16	123.58	121.00
31	a	1076	U	O5'-P-OP2	5.16	116.90	110.70
31	a	1441	C	N3-C2-O2	-5.16	118.28	121.90
1	A	70	G	O5'-P-OP2	5.16	116.89	110.70
1	A	1696	C	C6-N1-C2	-5.16	118.23	120.30
1	A	2277	G	N3-C4-C5	-5.16	126.02	128.60
2	B	40	C	N1-C2-O2	5.16	122.00	118.90
1	A	604	G	P-O3'-C3'	5.16	125.89	119.70
1	A	1178	C	C4-C5-C6	5.16	119.98	117.40
1	A	1591	G	C2-N3-C4	5.16	114.48	111.90
1	A	2361	U	C5-C4-O4	-5.16	122.80	125.90
1	A	1233	A	N3-C4-N9	5.16	131.53	127.40
1	A	1533	A	C4-N9-C1'	5.16	135.58	126.30
1	A	1797	G	N7-C8-N9	5.16	115.68	113.10
1	A	2288	C	C2-N1-C1'	5.16	124.47	118.80
1	A	488	G	C4-C5-C6	-5.16	115.71	118.80
1	A	882	C	C5-C4-N4	5.16	123.81	120.20
1	A	1615	G	N3-C4-C5	-5.16	126.02	128.60
1	A	1698	A	P-O5'-C5'	5.16	129.15	120.90
1	A	2062	G	N3-C2-N2	5.16	123.51	119.90
31	a	1453	A	N9-C4-C5	-5.16	103.74	105.80
1	A	492	G	C6-C5-N7	-5.16	127.31	130.40
1	A	1331	C	C2-N3-C4	-5.16	117.32	119.90
1	A	1633	A	C4-N9-C1'	5.16	135.58	126.30
1	A	2552	G	N9-C4-C5	5.16	107.46	105.40
1	A	2748	A	N7-C8-N9	5.16	116.38	113.80
1	A	2869	G	C5-C6-N1	5.16	114.08	111.50
31	a	611	U	C2-N1-C1'	5.16	123.89	117.70
31	a	875	C	C6-N1-C2	-5.16	118.24	120.30
31	a	1136	U	N1-C2-O2	5.16	126.41	122.80
1	A	332	A	OP2-P-O3'	5.15	116.54	105.20
1	A	1325	U	N1-C2-O2	5.15	126.41	122.80
1	A	2088	G	C5-C6-O6	-5.15	125.51	128.60
1	A	2326	G	C4-C5-C6	5.15	121.89	118.80
1	A	2608	G	C5-C6-O6	-5.15	125.51	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	a	721	G	C5-C6-O6	-5.15	125.51	128.60
1	A	265	A	N7-C8-N9	-5.15	111.22	113.80
1	A	362	C	N1-C2-N3	5.15	122.81	119.20
1	A	856	U	N3-C2-O2	-5.15	118.59	122.20
1	A	1048	U	C2-N3-C4	5.15	130.09	127.00
1	A	1256	U	C2-N1-C1'	5.15	123.88	117.70
1	A	1277	C	N1-C2-O2	5.15	121.99	118.90
1	A	1614	A	N9-C4-C5	5.15	107.86	105.80
1	A	2062	G	O5'-P-OP2	-5.15	101.06	105.70
1	A	2319	U	C5-C4-O4	-5.15	122.81	125.90
1	A	2855	A	O5'-P-OP1	-5.15	101.06	105.70
31	a	675	G	N9-C4-C5	-5.15	103.34	105.40
1	A	599	A	OP1-P-O3'	5.15	116.53	105.20
1	A	2027	G	C8-N9-C1'	5.15	133.69	127.00
31	a	27	A	C5-C6-N1	5.15	120.28	117.70
31	a	1098	G	N3-C4-N9	5.15	129.09	126.00
1	A	227	G	N3-C4-N9	5.15	129.09	126.00
1	A	584	G	C4-N9-C1'	5.15	133.19	126.50
1	A	978	A	C4-C5-N7	5.15	113.27	110.70
1	A	2520	U	C6-N1-C2	-5.15	117.91	121.00
1	A	2740	A	C5-C6-N6	-5.15	119.58	123.70
31	a	1304	U	P-O3'-C3'	5.15	125.88	119.70
1	A	508	C	N3-C4-C5	5.15	123.96	121.90
1	A	898	U	C2-N3-C4	-5.15	123.91	127.00
1	A	908	A	N7-C8-N9	5.15	116.37	113.80
1	A	962	A	C4-N9-C1'	5.15	135.57	126.30
1	A	1265	G	C4-C5-N7	5.15	112.86	110.80
1	A	1687	G	C8-N9-C4	-5.15	104.34	106.40
1	A	2890	C	C4-C5-C6	-5.15	114.83	117.40
1	A	64	A	C4-N9-C1'	5.15	135.56	126.30
1	A	778	G	N1-C6-O6	-5.15	116.81	119.90
1	A	1300	G	C4-C5-N7	5.15	112.86	110.80
1	A	220	A	N1-C6-N6	-5.14	115.51	118.60
1	A	463	C	N1-C2-O2	5.14	121.99	118.90
1	A	592	A	N9-C1'-C2'	5.14	120.69	114.00
1	A	871	U	C5-C4-O4	-5.14	122.81	125.90
1	A	884	U	C5-C4-O4	-5.14	122.81	125.90
1	A	1082	C	P-O3'-C3'	5.14	125.87	119.70
1	A	1309	G	N3-C4-C5	-5.14	126.03	128.60
1	A	1595	C	N3-C2-O2	-5.14	118.30	121.90
1	A	1827	C	C5-C6-N1	5.14	123.57	121.00
1	A	2062	G	O4'-C1'-N9	5.14	112.31	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2518	U	P-O3'-C3'	5.14	125.87	119.70
31	a	415	A	N3-C4-N9	5.14	131.52	127.40
31	a	1453	A	C4-C5-N7	5.14	113.27	110.70
31	a	1526	C	C5-C6-N1	5.14	123.57	121.00
1	A	367	A	C6-C5-N7	5.14	135.90	132.30
1	A	592	A	P-O3'-C3'	5.14	125.87	119.70
1	A	969	A	N1-C6-N6	-5.14	115.52	118.60
1	A	2082	C	C5-C4-N4	-5.14	116.60	120.20
1	A	227	G	N3-C4-C5	-5.14	126.03	128.60
1	A	550	A	N3-C4-N9	5.14	131.51	127.40
1	A	703	A	P-O5'-C5'	5.14	129.13	120.90
1	A	713	A	C5-C6-N1	5.14	120.27	117.70
1	A	722	A	C6-N1-C2	5.14	121.69	118.60
1	A	903	G	N7-C8-N9	-5.14	110.53	113.10
1	A	1025	A	C5-C6-N1	5.14	120.27	117.70
1	A	2804	G	O5'-P-OP2	-5.14	101.07	105.70
1	A	223	G	N1-C2-N3	5.14	126.98	123.90
1	A	2378	G	C8-N9-C4	-5.14	104.34	106.40
1	A	2637	C	N1-C2-N3	5.14	122.80	119.20
1	A	476	A	C2-N3-C4	5.14	113.17	110.60
1	A	542	A	OP2-P-O3'	5.14	116.50	105.20
1	A	722	A	OP2-P-O3'	5.14	116.50	105.20
1	A	1709	A	N1-C6-N6	-5.14	115.52	118.60
1	A	1842	A	N9-C4-C5	-5.14	103.75	105.80
1	A	356	A	C6-C5-N7	-5.14	128.70	132.30
1	A	421	C	OP1-P-OP2	-5.14	111.89	119.60
1	A	452	G	N1-C2-N3	5.14	126.98	123.90
1	A	492	G	N1-C2-N3	-5.14	120.82	123.90
1	A	1669	C	N1-C2-N3	5.14	122.80	119.20
1	A	2001	C	N3-C4-C5	5.14	123.95	121.90
1	A	2460	A	O4'-C1'-N9	-5.14	104.09	108.20
31	a	422	A	N3-C4-N9	5.14	131.51	127.40
1	A	432	G	N1-C2-N2	-5.13	111.58	116.20
1	A	657	U	N1-C2-O2	5.13	126.39	122.80
1	A	1169	G	C8-N9-C1'	5.13	133.68	127.00
1	A	1240	U	N1-C2-O2	5.13	126.39	122.80
1	A	1579	C	C6-N1-C2	-5.13	118.25	120.30
1	A	1707	U	N3-C4-O4	-5.13	115.81	119.40
31	a	527	C	N3-C4-N4	-5.13	114.41	118.00
31	a	660	U	C6-N1-C2	-5.13	117.92	121.00
31	a	1213	C	C5-C6-N1	5.13	123.57	121.00
31	a	1313	C	C6-N1-C2	-5.13	118.25	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	504	G	C5-C6-O6	-5.13	125.52	128.60
1	A	547	A	N3-C4-C5	-5.13	123.21	126.80
1	A	2061	U	C2-N1-C1'	5.13	123.86	117.70
1	A	2564	U	N3-C2-O2	-5.13	118.61	122.20
1	A	2663	U	N3-C2-O2	-5.13	118.61	122.20
1	A	592	A	N1-C2-N3	-5.13	126.73	129.30
1	A	872	U	C5'-C4'-C3'	5.13	124.21	116.00
1	A	893	G	C3'-C2'-C1'	-5.13	97.39	101.50
1	A	1055	A	C8-N9-C1'	5.13	136.94	127.70
1	A	1078	G	C8-N9-C4	5.13	108.45	106.40
1	A	2862	C	N3-C2-O2	-5.13	118.31	121.90
1	A	2507	C	O4'-C1'-N1	5.13	112.30	108.20
1	A	97	C	N1-C2-N3	5.13	122.79	119.20
1	A	329	A	N1-C6-N6	-5.13	115.52	118.60
1	A	593	U	O5'-P-OP2	-5.13	101.08	105.70
1	A	1161	A	C8-N9-C4	-5.13	103.75	105.80
1	A	2015	C	N3-C4-C5	5.13	123.95	121.90
1	A	2348	G	N3-C4-N9	5.13	129.08	126.00
1	A	2478	A	N7-C8-N9	-5.13	111.24	113.80
1	A	96	G	C5-C6-N1	-5.13	108.94	111.50
1	A	631	U	C2-N1-C1'	5.13	123.85	117.70
1	A	714	G	N7-C8-N9	5.13	115.66	113.10
1	A	1016	G	N3-C2-N2	5.13	123.49	119.90
1	A	1268	C	O3'-P-O5'	5.13	113.74	104.00
1	A	1713	A	C2-N3-C4	5.13	113.16	110.60
1	A	2603	G	N3-C4-C5	-5.13	126.04	128.60
1	A	2910	G	C4-N9-C1'	5.13	133.16	126.50
1	A	2914	A	OP2-P-O3'	5.13	116.48	105.20
1	A	731	U	N1-C2-N3	5.12	117.97	114.90
1	A	917	U	N3-C4-O4	-5.12	115.81	119.40
1	A	1643	C	C6-N1-C2	-5.12	118.25	120.30
1	A	175	C	N3-C4-C5	-5.12	119.85	121.90
1	A	423	A	N9-C4-C5	5.12	107.85	105.80
1	A	478	A	O5'-P-OP1	-5.12	101.09	105.70
1	A	1039	C	OP1-P-O3'	5.12	116.47	105.20
1	A	1078	G	C4-N9-C1'	-5.12	119.84	126.50
1	A	2084	G	C4-C5-N7	-5.12	108.75	110.80
1	A	2107	G	N1-C2-N2	-5.12	111.59	116.20
1	A	2524	A	N9-C1'-C2'	-5.12	106.36	112.00
31	a	1213	C	C6-N1-C2	-5.12	118.25	120.30
1	A	1040	A	P-O3'-C3'	5.12	125.84	119.70
1	A	1607	A	C2-N3-C4	5.12	113.16	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1614	A	N7-C8-N9	5.12	116.36	113.80
1	A	2620	U	N3-C4-C5	5.12	117.67	114.60
1	A	596	G	C5-N7-C8	-5.12	101.74	104.30
1	A	988	C	N1-C2-N3	5.12	122.78	119.20
1	A	2283	G	N7-C8-N9	5.12	115.66	113.10
1	A	859	C	C5-C6-N1	-5.12	118.44	121.00
1	A	860	U	C2'-C3'-O3'	5.12	121.89	113.70
1	A	1084	U	O5'-P-OP2	-5.12	101.09	105.70
1	A	1232	G	C4-N9-C1'	5.12	133.15	126.50
1	A	1322	G	N3-C2-N2	5.12	123.48	119.90
31	a	745	U	N1-C2-O2	5.12	126.38	122.80
1	A	721	A	C6-C5-N7	-5.12	128.72	132.30
5	E	52	LYS	CD-CE-NZ	-5.12	99.93	111.70
1	A	343	A	C5-C6-N1	5.12	120.26	117.70
1	A	578	G	N7-C8-N9	5.12	115.66	113.10
1	A	905	U	N1-C1'-C2'	5.12	120.65	114.00
1	A	2440	G	N1-C2-N2	-5.12	111.59	116.20
1	A	2461	A	C8-N9-C1'	-5.12	118.49	127.70
1	A	1291	A	C6-N1-C2	5.11	121.67	118.60
1	A	1641	G	N3-C4-N9	-5.11	122.93	126.00
1	A	1751	G	C4-C5-N7	5.11	112.84	110.80
1	A	2042	A	C5-C6-N6	-5.11	119.61	123.70
1	A	2110	G	N1-C2-N3	5.11	126.97	123.90
1	A	2452	A	C4-N9-C1'	5.11	135.51	126.30
1	A	2585	C	N3-C4-C5	-5.11	119.85	121.90
1	A	2737	C	C6-N1-C2	-5.11	118.25	120.30
31	a	417	U	N1-C2-O2	5.11	126.38	122.80
31	a	418	G	N3-C2-N2	-5.11	116.32	119.90
31	a	1325	U	C6-N1-C2	-5.11	117.93	121.00
1	A	180	G	N1-C2-N2	-5.11	111.60	116.20
1	A	606	G	O5'-P-OP2	-5.11	101.10	105.70
1	A	2063	C	N1-C1'-C2'	5.11	120.65	114.00
1	A	2293	A	O4'-C1'-N9	-5.11	104.11	108.20
1	A	2450	U	C5-C6-N1	-5.11	120.14	122.70
1	A	2586	C	N3-C4-N4	-5.11	114.42	118.00
1	A	177	G	C5-N7-C8	-5.11	101.75	104.30
1	A	308	C	C5-C6-N1	5.11	123.56	121.00
1	A	1360	G	N3-C4-N9	5.11	129.07	126.00
1	A	2273	G	N9-C4-C5	-5.11	103.36	105.40
1	A	2657	G	O5'-P-OP2	5.11	116.83	110.70
31	a	970	U	C6-N1-C1'	-5.11	114.05	121.20
1	A	1086	G	C8-N9-C1'	5.11	133.64	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2792	A	N1-C6-N6	5.11	121.67	118.60
1	A	222	A	C6-N1-C2	-5.11	115.54	118.60
1	A	469	A	C5-C6-N1	5.11	120.25	117.70
1	A	583	A	O5'-P-OP2	5.11	116.83	110.70
1	A	1508	C	C6-N1-C1'	5.11	126.93	120.80
1	A	192	G	N9-C4-C5	-5.11	103.36	105.40
1	A	198	A	N3-C4-N9	-5.11	123.32	127.40
1	A	387	G	C8-N9-C1'	-5.11	120.36	127.00
1	A	1698	A	C8-N9-C4	-5.11	103.76	105.80
1	A	1755	U	N1-C2-O2	5.11	126.37	122.80
1	A	1882	G	N3-C4-N9	5.11	129.06	126.00
1	A	2006	C	N1-C2-N3	5.11	122.78	119.20
1	A	2269	G	C2-N3-C4	5.11	114.45	111.90
31	a	818	C	N1-C2-O2	5.11	121.96	118.90
1	A	520	G	C6-C5-N7	5.10	133.46	130.40
1	A	1434	U	C2-N3-C4	-5.10	123.94	127.00
1	A	523	A	N3-C4-C5	5.10	130.37	126.80
1	A	1033	G	OP2-P-O3'	5.10	116.42	105.20
1	A	1052	A	OP1-P-O3'	5.10	116.42	105.20
1	A	1167	C	C6-N1-C2	-5.10	118.26	120.30
31	a	1141	A	C4-C5-N7	5.10	113.25	110.70
1	A	547	A	OP2-P-O3'	-5.10	93.98	105.20
1	A	955	A	N1-C6-N6	-5.10	115.54	118.60
1	A	1430	A	C5-C6-N1	5.10	120.25	117.70
1	A	152	C	C5-C6-N1	5.10	123.55	121.00
1	A	670	G	O5'-P-OP2	-5.10	101.11	105.70
1	A	1236	G	N1-C2-N3	5.10	126.96	123.90
1	A	2063	C	C5-C4-N4	5.10	123.77	120.20
1	A	2520	U	N3-C4-C5	5.10	117.66	114.60
1	A	2547	C	O5'-P-OP1	-5.10	101.11	105.70
1	A	2557	U	N1-C2-O2	5.10	126.37	122.80
1	A	2802	A	C8-N9-C1'	-5.10	118.52	127.70
1	A	2899	A	C4-C5-C6	5.10	119.55	117.00
31	a	491	C	C6-N1-C2	-5.10	118.26	120.30
1	A	217	G	C8-N9-C1'	5.10	133.63	127.00
1	A	644	C	C5'-C4'-C3'	5.10	124.16	116.00
1	A	903	G	C4-C5-C6	-5.10	115.74	118.80
1	A	1014	U	O5'-P-OP1	-5.10	101.11	105.70
1	A	1195	A	C5-C6-N6	-5.10	119.62	123.70
1	A	1401	G	N3-C4-N9	-5.10	122.94	126.00
1	A	2480	A	C6-C5-N7	-5.10	128.73	132.30
1	A	2569	A	C4-N9-C1'	5.10	135.47	126.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2756	G	OP2-P-O3'	5.10	116.42	105.20
1	A	1185	U	C3'-C2'-C1'	5.10	105.58	101.50
1	A	2843	A	C8-N9-C4	5.10	107.84	105.80
1	A	2916	U	O4'-C1'-N1	5.10	112.28	108.20
1	A	76	C	C6-N1-C2	-5.09	118.26	120.30
1	A	521	U	C2-N3-C4	-5.09	123.94	127.00
1	A	1051	C	N1-C2-O2	-5.09	115.84	118.90
1	A	1201	G	OP1-P-O3'	5.09	116.41	105.20
1	A	1249	U	C6-N1-C2	-5.09	117.94	121.00
1	A	1299	U	OP1-P-OP2	-5.09	111.96	119.60
1	A	1957	G	C6-C5-N7	5.09	133.46	130.40
1	A	226	A	OP2-P-O3'	-5.09	94.00	105.20
1	A	852	U	N3-C4-O4	-5.09	115.83	119.40
1	A	1053	A	O4'-C1'-N9	5.09	112.27	108.20
1	A	1265	G	O5'-P-OP2	-5.09	101.12	105.70
1	A	1429	G	N3-C2-N2	5.09	123.47	119.90
1	A	2709	U	N3-C2-O2	-5.09	118.64	122.20
1	A	378	C	O5'-C5'-C4'	5.09	121.37	111.70
1	A	520	G	C3'-C2'-C1'	5.09	105.57	101.50
1	A	753	U	N3-C2-O2	-5.09	118.64	122.20
1	A	1207	G	N7-C8-N9	5.09	115.65	113.10
1	A	2888	A	C5'-C4'-C3'	5.09	124.15	116.00
31	a	173	U	C6-N1-C1'	-5.09	114.07	121.20
1	A	236	A	N3-C4-N9	5.09	131.47	127.40
1	A	1319	U	N3-C4-C5	5.09	117.65	114.60
1	A	2744	G	N3-C4-C5	-5.09	126.06	128.60
1	A	2887	G	OP1-P-OP2	-5.09	111.97	119.60
1	A	2907	A	C2-N3-C4	5.09	113.14	110.60
1	A	828	A	N3-C4-N9	5.09	131.47	127.40
1	A	865	A	N9-C4-C5	-5.09	103.77	105.80
1	A	2913	G	N9-C4-C5	-5.09	103.36	105.40
31	a	523	G	C8-N9-C1'	-5.09	120.39	127.00
1	A	68	A	P-O3'-C3'	5.09	125.80	119.70
1	A	196	U	C5-C6-N1	5.09	125.24	122.70
1	A	225	A	C8-N9-C4	5.09	107.83	105.80
1	A	1172	A	C8-N9-C4	-5.09	103.77	105.80
1	A	1343	U	C6-N1-C1'	-5.09	114.08	121.20
1	A	2594	G	C5-C6-N1	5.09	114.04	111.50
1	A	2868	G	C4'-C3'-O3'	5.09	123.17	113.00
31	a	952	U	C5-C6-N1	5.09	125.24	122.70
1	A	30	G	C8-N9-C1'	5.08	133.61	127.00
1	A	2581	U	O4'-C1'-N1	5.08	112.27	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	249	C	N3-C4-N4	-5.08	114.44	118.00
1	A	350	G	C4-N9-C1'	5.08	133.11	126.50
1	A	968	A	C5-C6-N6	5.08	127.77	123.70
1	A	1698	A	C5'-C4'-C3'	5.08	124.14	116.00
1	A	1772	G	C6-N1-C2	-5.08	122.05	125.10
1	A	2526	C	C6-N1-C2	-5.08	118.27	120.30
1	A	2760	A	OP2-P-O3'	5.08	116.38	105.20
1	A	178	A	N1-C6-N6	5.08	121.65	118.60
1	A	488	G	C5-C6-O6	5.08	131.65	128.60
1	A	856	U	C5-C4-O4	5.08	128.95	125.90
1	A	1005	G	P-O3'-C3'	5.08	125.80	119.70
1	A	2054	G	C2-N3-C4	-5.08	109.36	111.90
1	A	2256	U	C5-C6-N1	5.08	125.24	122.70
31	a	216	G	C8-N9-C1'	-5.08	120.39	127.00
1	A	87	U	C2-N3-C4	5.08	130.05	127.00
1	A	593	U	P-O3'-C3'	5.08	125.80	119.70
1	A	1209	U	N3-C2-O2	-5.08	118.64	122.20
1	A	1251	A	OP2-P-O3'	5.08	116.38	105.20
1	A	2501	U	C5-C6-N1	5.08	125.24	122.70
1	A	2856	U	OP1-P-O3'	5.08	116.38	105.20
1	A	13	A	N1-C2-N3	-5.08	126.76	129.30
1	A	228	A	P-O3'-C3'	5.08	125.79	119.70
1	A	524	A	OP1-P-O3'	5.08	116.37	105.20
1	A	607	C	P-O3'-C3'	-5.08	113.61	119.70
1	A	1278	G	N3-C4-C5	-5.08	126.06	128.60
1	A	2258	U	C6-N1-C2	-5.08	117.95	121.00
1	A	2481	G	O4'-C4'-C3'	-5.08	98.92	104.00
1	A	566	U	C5-C4-O4	5.08	128.95	125.90
1	A	1377	U	OP2-P-O3'	5.08	116.37	105.20
31	a	73	G	N7-C8-N9	5.08	115.64	113.10
31	a	544	C	C6-N1-C2	-5.08	118.27	120.30
31	a	796	U	N1-C2-O2	5.08	126.35	122.80
1	A	526	A	C5-N7-C8	5.08	106.44	103.90
1	A	1018	A	C4-N9-C1'	-5.08	117.16	126.30
1	A	1906	C	N3-C2-O2	-5.08	118.35	121.90
1	A	2364	G	C5-N7-C8	-5.08	101.76	104.30
1	A	2436	G	N1-C6-O6	-5.08	116.86	119.90
1	A	98	U	OP2-P-O3'	5.07	116.36	105.20
1	A	243	U	N3-C2-O2	-5.07	118.65	122.20
1	A	616	G	C8-N9-C4	-5.07	104.37	106.40
1	A	882	C	C2-N1-C1'	5.07	124.38	118.80
1	A	1222	A	C5-C6-N6	-5.07	119.64	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2910	G	C4-C5-N7	5.07	112.83	110.80
1	A	271	C	N3-C2-O2	-5.07	118.35	121.90
1	A	2455	G	C5'-C4'-C3'	5.07	124.11	116.00
31	a	812	U	N1-C2-O2	5.07	126.35	122.80
1	A	217	G	C4-N9-C1'	-5.07	119.91	126.50
1	A	251	G	N1-C2-N2	-5.07	111.64	116.20
1	A	914	G	C5-N7-C8	-5.07	101.76	104.30
1	A	1336	G	C5-C6-O6	-5.07	125.56	128.60
1	A	2295	A	C5'-C4'-C3'	5.07	124.11	116.00
31	a	1213	C	N1-C2-O2	5.07	121.94	118.90
1	A	488	G	C4-N9-C1'	-5.07	119.91	126.50
1	A	1710	G	C6-C5-N7	5.07	133.44	130.40
1	A	2595	C	P-O5'-C5'	5.07	129.01	120.90
1	A	12	U	N3-C4-O4	5.07	122.95	119.40
1	A	196	U	N3-C2-O2	-5.07	118.65	122.20
1	A	335	U	P-O3'-C3'	5.07	125.78	119.70
1	A	529	A	C2-N3-C4	5.07	113.13	110.60
1	A	540	G	N9-C4-C5	5.07	107.43	105.40
1	A	608	C	N1-C1'-C2'	-5.07	106.42	112.00
1	A	647	G	C4-N9-C1'	5.07	133.09	126.50
1	A	758	G	N1-C6-O6	5.07	122.94	119.90
1	A	1282	A	C5-C6-N6	5.07	127.75	123.70
1	A	1791	G	C5-C6-N1	5.07	114.03	111.50
1	A	2031	G	O4'-C1'-N9	5.07	112.25	108.20
1	A	2082	C	OP2-P-O3'	5.07	116.35	105.20
1	A	2278	G	C8-N9-C4	-5.07	104.37	106.40
31	a	233	U	N1-C2-O2	5.07	126.35	122.80
1	A	35	G	C2-N3-C4	-5.07	109.37	111.90
1	A	175	C	C6-N1-C1'	-5.07	114.72	120.80
1	A	180	G	C5'-C4'-O4'	-5.07	103.02	109.10
1	A	387	G	N3-C4-N9	5.07	129.04	126.00
1	A	2764	G	C4-C5-N7	5.07	112.83	110.80
1	A	2858	G	N9-C4-C5	5.07	107.43	105.40
31	a	713	G	C8-N9-C1'	-5.07	120.42	127.00
31	a	868	C	N3-C2-O2	-5.07	118.35	121.90
1	A	192	G	N3-C4-N9	5.06	129.04	126.00
1	A	444	C	N1-C2-N3	5.06	122.75	119.20
1	A	1450	A	P-O3'-C3'	5.06	125.78	119.70
1	A	2025	A	C6-C5-N7	-5.06	128.75	132.30
1	A	2077	C	O4'-C1'-C2'	5.06	112.16	107.60
1	A	2127	G	N3-C2-N2	-5.06	116.36	119.90
1	A	643	G	O4'-C1'-N9	5.06	112.25	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	768	A	N9-C4-C5	-5.06	103.78	105.80
1	A	975	U	C2-N1-C1'	-5.06	111.62	117.70
1	A	2549	U	N1-C2-N3	5.06	117.94	114.90
1	A	1226	G	N3-C4-N9	5.06	129.04	126.00
1	A	1233	A	C4-C5-N7	5.06	113.23	110.70
31	a	1482	G	C8-N9-C4	-5.06	104.38	106.40
1	A	209	U	C6-N1-C2	-5.06	117.96	121.00
1	A	468	A	O4'-C1'-N9	-5.06	104.15	108.20
1	A	950	A	N1-C6-N6	-5.06	115.56	118.60
1	A	985	A	P-O3'-C3'	5.06	125.77	119.70
1	A	1448	U	N1-C2-O2	5.06	126.34	122.80
1	A	2284	U	C6-N1-C2	-5.06	117.96	121.00
1	A	2480	A	C1'-O4'-C4'	-5.06	105.85	109.90
1	A	2634	G	N1-C6-O6	-5.06	116.86	119.90
1	A	19	G	N3-C4-C5	5.06	131.13	128.60
1	A	85	G	C5-C6-O6	-5.06	125.57	128.60
1	A	427	A	C5-C6-N1	5.06	120.23	117.70
1	A	1025	A	N1-C6-N6	-5.06	115.57	118.60
1	A	2024	A	C8-N9-C4	-5.06	103.78	105.80
1	A	2314	A	C5-C6-N1	-5.06	115.17	117.70
1	A	2796	C	N1-C2-O2	5.06	121.94	118.90
1	A	1418	G	C5-C6-N1	5.06	114.03	111.50
1	A	1683	U	N1-C2-N3	5.06	117.93	114.90
1	A	1992	C	O4'-C1'-N1	5.06	112.25	108.20
1	A	2663	U	C5'-C4'-C3'	5.06	124.09	116.00
1	A	369	G	N9-C4-C5	5.05	107.42	105.40
1	A	1065	A	O5'-P-OP2	5.05	116.77	110.70
1	A	2280	G	N7-C8-N9	5.05	115.63	113.10
1	A	2416	G	C8-N9-C4	-5.05	104.38	106.40
31	a	867	G	C2-N3-C4	5.05	114.43	111.90
1	A	478	A	N1-C2-N3	-5.05	126.77	129.30
1	A	688	A	N3-C4-N9	5.05	131.44	127.40
1	A	884	U	C5-C6-N1	5.05	125.23	122.70
1	A	1613	G	N9-C4-C5	-5.05	103.38	105.40
1	A	1917	A	C2-N3-C4	5.05	113.13	110.60
1	A	2478	A	C8-N9-C1'	5.05	136.79	127.70
1	A	23	G	C4-C5-C6	5.05	121.83	118.80
1	A	715	A	C5-C6-N1	5.05	120.22	117.70
31	a	1470	U	N1-C2-O2	5.05	126.33	122.80
1	A	1029	C	P-O5'-C5'	5.05	128.98	120.90
1	A	1367	C	O5'-C5'-C4'	5.05	121.29	111.70
1	A	2478	A	C4-C5-C6	-5.05	114.48	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	a	1109	C	N1-C2-O2	5.05	121.93	118.90
1	A	192	G	C6-C5-N7	-5.05	127.37	130.40
1	A	459	C	C5-C6-N1	5.05	123.52	121.00
1	A	714	G	C5'-C4'-O4'	-5.05	103.04	109.10
1	A	773	G	N3-C4-C5	-5.05	126.08	128.60
1	A	852	U	N3-C4-C5	5.05	117.63	114.60
1	A	1197	C	P-O5'-C5'	5.05	128.97	120.90
1	A	1251	A	C4'-C3'-O3'	5.05	123.09	113.00
1	A	2039	G	OP1-P-OP2	-5.05	112.03	119.60
1	A	355	G	C5-N7-C8	-5.04	101.78	104.30
1	A	607	C	OP1-P-OP2	-5.04	112.03	119.60
1	A	615	A	C3'-C2'-C1'	5.04	105.54	101.50
31	a	487	U	C6-N1-C2	-5.04	117.97	121.00
1	A	203	U	N3-C2-O2	-5.04	118.67	122.20
1	A	497	U	P-O3'-C3'	5.04	125.75	119.70
1	A	735	C	C5-C6-N1	5.04	123.52	121.00
1	A	985	A	C5-N7-C8	-5.04	101.38	103.90
1	A	1814	A	C2-N3-C4	5.04	113.12	110.60
1	A	2410	G	C5-C6-O6	-5.04	125.57	128.60
31	a	693	G	C8-N9-C4	-5.04	104.38	106.40
1	A	583	A	C6-N1-C2	-5.04	115.58	118.60
1	A	848	U	C6-N1-C2	-5.04	117.97	121.00
1	A	1150	A	C2-N3-C4	5.04	113.12	110.60
1	A	2265	G	C8-N9-C1'	-5.04	120.45	127.00
1	A	2289	U	C2-N3-C4	-5.04	123.97	127.00
2	B	108	U	O4'-C1'-N1	5.04	112.23	108.20
31	a	169	C	N1-C2-O2	5.04	121.92	118.90
31	a	1484	G	C8-N9-C4	-5.04	104.38	106.40
1	A	555	C	O4'-C1'-N1	5.04	112.23	108.20
31	a	1041	C	C2-N1-C1'	5.04	124.34	118.80
1	A	910	C	O5'-P-OP2	-5.04	101.17	105.70
1	A	2664	U	OP1-P-OP2	-5.04	112.04	119.60
1	A	496	G	C4'-C3'-C2'	-5.04	97.56	102.60
1	A	534	G	N9-C1'-C2'	-5.04	106.46	112.00
1	A	2629	A	N3-C4-C5	-5.04	123.27	126.80
31	a	1098	G	N1-C6-O6	5.04	122.92	119.90
1	A	353	A	N7-C8-N9	5.04	116.32	113.80
1	A	1320	G	C6-N1-C2	-5.04	122.08	125.10
1	A	2451	C	C5-C6-N1	5.04	123.52	121.00
1	A	2550	G	O5'-P-OP2	-5.04	101.17	105.70
31	a	283	G	C6-C5-N7	-5.04	127.38	130.40
31	a	354	G	C8-N9-C1'	5.04	133.54	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	229	A	O5'-P-OP2	-5.03	101.17	105.70
1	A	589	U	C2-N3-C4	-5.03	123.98	127.00
1	A	592	A	N3-C4-C5	5.03	130.32	126.80
1	A	1024	A	C4-C5-C6	5.03	119.52	117.00
1	A	1186	A	N3-C4-N9	5.03	131.43	127.40
1	A	2091	C	N3-C4-N4	5.03	121.52	118.00
1	A	2700	G	C6-N1-C2	-5.03	122.08	125.10
1	A	2854	A	C5'-C4'-O4'	5.03	115.14	109.10
1	A	600	U	C5'-C4'-C3'	5.03	124.05	116.00
1	A	1024	A	N1-C2-N3	5.03	131.82	129.30
1	A	197	G	O5'-P-OP1	-5.03	101.17	105.70
1	A	511	G	C5-C6-O6	5.03	131.62	128.60
1	A	902	A	C6-N1-C2	-5.03	115.58	118.60
1	A	1033	G	OP1-P-O3'	5.03	116.27	105.20
1	A	1272	U	O5'-P-OP1	-5.03	101.17	105.70
1	A	2349	A	N9-C4-C5	5.03	107.81	105.80
1	A	2577	G	C4-C5-N7	5.03	112.81	110.80
1	A	2607	U	C2-N1-C1'	5.03	123.74	117.70
1	A	380	U	C6-N1-C2	-5.03	117.98	121.00
1	A	858	U	C2-N1-C1'	5.03	123.73	117.70
1	A	1179	C	O5'-P-OP2	-5.03	101.17	105.70
1	A	152	C	N1-C2-N3	-5.03	115.68	119.20
1	A	535	G	C4-C5-C6	5.03	121.82	118.80
1	A	573	A	OP1-P-OP2	-5.03	112.06	119.60
1	A	600	U	C5'-C4'-O4'	-5.03	103.07	109.10
1	A	1062	U	C5-C6-N1	-5.03	120.19	122.70
1	A	1258	A	C5-C6-N1	5.03	120.21	117.70
1	A	2304	G	N3-C4-C5	-5.03	126.09	128.60
1	A	2458	U	N3-C2-O2	-5.03	118.68	122.20
1	A	2482	G	O4'-C4'-C3'	-5.03	98.97	104.00
1	A	2629	A	OP1-P-O3'	5.03	116.26	105.20
1	A	2815	C	C2-N1-C1'	-5.03	113.27	118.80
1	A	2909	C	N3-C4-C5	5.03	123.91	121.90
1	A	115	C	N1-C2-O2	5.03	121.92	118.90
1	A	262	G	O5'-P-OP1	5.03	116.73	110.70
1	A	763	A	O4'-C1'-N9	5.03	112.22	108.20
1	A	1299	U	C5'-C4'-O4'	5.03	115.13	109.10
1	A	2191	U	C5-C6-N1	5.03	125.21	122.70
1	A	2606	C	O5'-P-OP1	-5.03	101.18	105.70
1	A	374	U	OP2-P-O3'	5.02	116.25	105.20
1	A	862	C	C6-N1-C2	-5.02	118.29	120.30
1	A	2591	A	N7-C8-N9	5.02	116.31	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1526	G	C4-N9-C1'	5.02	133.03	126.50
1	A	1533	A	C5-C6-N6	-5.02	119.68	123.70
1	A	1288	G	N9-C1'-C2'	5.02	120.53	114.00
1	A	1629	U	N3-C2-O2	-5.02	118.69	122.20
1	A	2432	G	OP2-P-O3'	5.02	116.25	105.20
1	A	583	A	O5'-P-OP1	-5.02	101.18	105.70
1	A	906	A	C4-N9-C1'	5.02	135.34	126.30
1	A	1647	A	N9-C4-C5	5.02	107.81	105.80
31	a	610	A	N9-C4-C5	-5.02	103.79	105.80
31	a	665	U	N1-C2-O2	5.02	126.31	122.80
1	A	1236	G	N3-C2-N2	-5.02	116.39	119.90
1	A	2589	U	C6-N1-C2	-5.02	117.99	121.00
1	A	582	G	N7-C8-N9	5.02	115.61	113.10
1	A	708	G	O5'-C5'-C4'	5.02	121.23	111.70
1	A	969	A	C6-N1-C2	-5.02	115.59	118.60
1	A	2448	G	C5-C6-N1	5.02	114.01	111.50
1	A	120	G	C6-C5-N7	-5.01	127.39	130.40
1	A	228	A	C2-N3-C4	5.01	113.11	110.60
1	A	491	C	C3'-C2'-C1'	5.01	105.51	101.50
1	A	833	A	C4-N9-C1'	5.01	135.33	126.30
1	A	1083	G	N9-C4-C5	5.01	107.41	105.40
1	A	1241	A	C1'-O4'-C4'	-5.01	105.89	109.90
1	A	2156	C	C6-N1-C2	-5.01	118.29	120.30
31	a	728	C	C6-N1-C2	-5.01	118.29	120.30
1	A	236	A	O4'-C1'-N9	5.01	112.21	108.20
1	A	1256	U	O5'-P-OP2	5.01	116.72	110.70
1	A	1257	G	C4-C5-N7	5.01	112.81	110.80
1	A	2052	C	P-O3'-C3'	-5.01	113.68	119.70
1	A	2653	C	N1-C2-O2	5.01	121.91	118.90
1	A	126	A	N1-C2-N3	-5.01	126.79	129.30
1	A	446	G	C4-N9-C1'	-5.01	119.98	126.50
1	A	476	A	N3-C4-N9	5.01	131.41	127.40
1	A	1742	A	C2-N3-C4	5.01	113.11	110.60
1	A	2529	G	N3-C4-C5	-5.01	126.09	128.60
1	A	173	A	N7-C8-N9	5.01	116.31	113.80
1	A	719	G	C6-C5-N7	-5.01	127.39	130.40
1	A	1058	U	O5'-P-OP2	-5.01	101.19	105.70
1	A	1175	G	N7-C8-N9	-5.01	110.59	113.10
1	A	2029	G	N1-C2-N3	5.01	126.91	123.90
1	A	478	A	C8-N9-C4	5.01	107.80	105.80
31	a	1453	A	C5-N7-C8	-5.01	101.40	103.90
1	A	1160	C	C6-N1-C2	-5.01	118.30	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1408	G	C8-N9-C4	5.01	108.40	106.40
1	A	2056	G	OP1-P-O3'	-5.01	94.18	105.20
31	a	444	C	C6-N1-C2	-5.01	118.30	120.30
31	a	502	C	C6-N1-C1'	-5.01	114.79	120.80
1	A	521	U	C5'-C4'-O4'	5.00	115.11	109.10
1	A	2013	G	O5'-P-OP2	-5.00	101.19	105.70
1	A	2288	C	N1-C2-O2	-5.00	115.90	118.90
1	A	2361	U	OP1-P-O3'	5.00	116.21	105.20
1	A	2709	U	OP2-P-O3'	5.00	116.21	105.20
1	A	180	G	C6-C5-N7	-5.00	127.40	130.40
1	A	438	U	N3-C2-O2	-5.00	118.70	122.20
1	A	1055	A	C2'-C3'-O3'	5.00	121.70	113.70
1	A	1220	A	C2-N3-C4	5.00	113.10	110.60
1	A	1961	C	N3-C2-O2	-5.00	118.40	121.90
1	A	2744	G	C5-C6-N1	5.00	114.00	111.50
1	A	181	G	O4'-C4'-C3'	-5.00	99.00	104.00
1	A	1188	A	C4'-C3'-O3'	5.00	123.00	113.00
1	A	2833	U	C2-N3-C4	-5.00	124.00	127.00
31	a	1227	U	C5-C6-N1	5.00	125.20	122.70

All (3) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	A	990	G	C4'
1	A	1289	A	C1'
1	A	2077	C	C1'

All (31) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
29	3	31	HIS	Peptide
1	A	1241	A	Sidechain
1	A	1324	A	Sidechain
1	A	1705	G	Sidechain
1	A	2026	C	Sidechain
1	A	2045	A	Sidechain
1	A	2060	A	Sidechain
1	A	2275	C	Sidechain
1	A	2544	C	Sidechain
1	A	2646	U	Sidechain
1	A	490	C	Sidechain
1	A	557	G	Sidechain

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Mol	Chain	Res	Type	Group
1	A	627	C	Sidechain
1	A	644	C	Sidechain
1	A	648	G	Sidechain
1	A	902	A	Sidechain
5	E	104	LYS	Peptide
5	E	169	ASN	Peptide
5	E	69	GLY	Peptide
9	I	119	PRO	Peptide
11	K	42	ILE	Peptide
13	M	68	THR	Peptide
16	P	50	ALA	Peptide
16	P	55	GLY	Peptide
19	S	55	GLY	Peptide
23	W	34	THR	Peptide
26	Z	41	ARG	Peptide
43	m	26	GLY	Peptide
49	s	14	HIS	Peptide
49	s	80	PHE	Peptide
49	s	9	PRO	Peptide

5.2 Too-close contacts (i)

Due to software issues we are unable to calculate clashes - this section is therefore empty.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
3	C	272/274 (99%)	260 (96%)	11 (4%)	1 (0%)	34 47
4	D	213/215 (99%)	194 (91%)	19 (9%)	0	100 100
5	E	204/206 (99%)	187 (92%)	17 (8%)	0	100 100
6	F	171/173 (99%)	142 (83%)	29 (17%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
7	G	171/173 (99%)	154 (90%)	17 (10%)	0	100	100
8	H	143/145 (99%)	130 (91%)	13 (9%)	0	100	100
9	I	120/122 (98%)	111 (92%)	9 (8%)	0	100	100
10	J	144/146 (99%)	134 (93%)	10 (7%)	0	100	100
11	K	135/137 (98%)	128 (95%)	7 (5%)	0	100	100
12	L	118/120 (98%)	112 (95%)	6 (5%)	0	100	100
13	M	116/118 (98%)	103 (89%)	13 (11%)	0	100	100
14	N	112/114 (98%)	107 (96%)	5 (4%)	0	100	100
15	O	114/116 (98%)	109 (96%)	5 (4%)	0	100	100
16	P	100/102 (98%)	92 (92%)	7 (7%)	1 (1%)	15	22
17	Q	108/110 (98%)	106 (98%)	2 (2%)	0	100	100
18	R	87/89 (98%)	78 (90%)	9 (10%)	0	100	100
19	S	101/103 (98%)	94 (93%)	6 (6%)	1 (1%)	15	22
20	T	92/94 (98%)	87 (95%)	5 (5%)	0	100	100
21	U	75/77 (97%)	73 (97%)	2 (3%)	0	100	100
22	V	47/49 (96%)	39 (83%)	8 (17%)	0	100	100
23	W	65/67 (97%)	58 (89%)	7 (11%)	0	100	100
24	X	56/58 (97%)	54 (96%)	2 (4%)	0	100	100
25	Y	57/59 (97%)	44 (77%)	13 (23%)	0	100	100
26	Z	46/48 (96%)	39 (85%)	7 (15%)	0	100	100
27	1	45/47 (96%)	45 (100%)	0	0	100	100
28	2	41/43 (95%)	38 (93%)	3 (7%)	0	100	100
29	3	62/64 (97%)	55 (89%)	6 (10%)	1 (2%)	9	12
30	4	35/37 (95%)	34 (97%)	1 (3%)	0	100	100
32	b	224/226 (99%)	206 (92%)	18 (8%)	0	100	100
33	c	200/202 (99%)	174 (87%)	26 (13%)	0	100	100
34	d	196/198 (99%)	166 (85%)	30 (15%)	0	100	100
35	e	154/156 (99%)	133 (86%)	21 (14%)	0	100	100
36	f	93/95 (98%)	86 (92%)	7 (8%)	0	100	100
37	g	150/152 (99%)	142 (95%)	8 (5%)	0	100	100
38	h	129/131 (98%)	110 (85%)	19 (15%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
39	i	125/127 (98%)	99 (79%)	26 (21%)	0	100	100
40	j	95/97 (98%)	79 (83%)	16 (17%)	0	100	100
41	k	112/114 (98%)	94 (84%)	18 (16%)	0	100	100
42	l	133/135 (98%)	116 (87%)	17 (13%)	0	100	100
43	m	100/104 (96%)	84 (84%)	16 (16%)	0	100	100
44	n	58/60 (97%)	52 (90%)	6 (10%)	0	100	100
45	o	86/88 (98%)	81 (94%)	5 (6%)	0	100	100
46	p	87/89 (98%)	80 (92%)	7 (8%)	0	100	100
47	q	78/80 (98%)	67 (86%)	11 (14%)	0	100	100
48	r	52/54 (96%)	47 (90%)	5 (10%)	0	100	100
49	s	78/80 (98%)	63 (81%)	15 (19%)	0	100	100
50	t	79/81 (98%)	74 (94%)	5 (6%)	0	100	100
51	u	50/52 (96%)	47 (94%)	3 (6%)	0	100	100
52	v	158/162 (98%)	144 (91%)	14 (9%)	0	100	100
All	All	5487/5589 (98%)	4951 (90%)	532 (10%)	4 (0%)	54	67

All (4) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	C	41	ALA
16	P	51	PRO
19	S	52	PRO
29	3	20	GLY

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	C	220/221 (100%)	186 (84%)	34 (16%)	2	3
4	D	173/173 (100%)	145 (84%)	28 (16%)	2	2

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
5	E	168/168 (100%)	141 (84%)	27 (16%)	2 2
6	F	141/152 (93%)	113 (80%)	28 (20%)	1 1
7	G	122/151 (81%)	102 (84%)	20 (16%)	2 2
8	H	123/123 (100%)	103 (84%)	20 (16%)	2 2
9	I	100/100 (100%)	84 (84%)	16 (16%)	2 2
10	J	109/112 (97%)	85 (78%)	24 (22%)	1 1
11	K	110/114 (96%)	98 (89%)	12 (11%)	6 8
12	L	96/101 (95%)	79 (82%)	17 (18%)	2 2
13	M	85/94 (90%)	70 (82%)	15 (18%)	2 2
14	N	93/100 (93%)	83 (89%)	10 (11%)	6 8
15	O	96/96 (100%)	87 (91%)	9 (9%)	8 12
16	P	84/86 (98%)	67 (80%)	17 (20%)	1 1
17	Q	88/90 (98%)	82 (93%)	6 (7%)	16 24
18	R	78/80 (98%)	62 (80%)	16 (20%)	1 1
19	S	81/88 (92%)	65 (80%)	16 (20%)	1 1
20	T	78/82 (95%)	68 (87%)	10 (13%)	4 5
21	U	59/60 (98%)	47 (80%)	12 (20%)	1 1
22	V	39/41 (95%)	36 (92%)	3 (8%)	13 19
23	W	58/60 (97%)	48 (83%)	10 (17%)	2 2
24	X	52/52 (100%)	44 (85%)	8 (15%)	2 3
25	Y	23/56 (41%)	20 (87%)	3 (13%)	4 4
26	Z	35/44 (80%)	25 (71%)	10 (29%)	0 0
27	1	44/45 (98%)	38 (86%)	6 (14%)	3 4
28	2	39/39 (100%)	37 (95%)	2 (5%)	24 37
29	3	55/55 (100%)	47 (86%)	8 (14%)	3 3
30	4	35/35 (100%)	31 (89%)	4 (11%)	5 7
32	b	196/196 (100%)	154 (79%)	42 (21%)	1 1
33	c	138/164 (84%)	104 (75%)	34 (25%)	0 0
34	d	147/174 (84%)	120 (82%)	27 (18%)	1 1
35	e	118/122 (97%)	98 (83%)	20 (17%)	2 2
36	f	80/83 (96%)	64 (80%)	16 (20%)	1 1

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
37	g	118/128 (92%)	96 (81%)	22 (19%)	1 1
38	h	111/112 (99%)	84 (76%)	27 (24%)	0 0
39	i	86/105 (82%)	71 (83%)	15 (17%)	2 2
40	j	81/87 (93%)	66 (82%)	15 (18%)	1 1
41	k	82/90 (91%)	68 (83%)	14 (17%)	2 2
42	l	111/117 (95%)	86 (78%)	25 (22%)	1 1
43	m	62/92 (67%)	45 (73%)	17 (27%)	0 0
44	n	48/52 (92%)	32 (67%)	16 (33%)	0 0
45	o	77/80 (96%)	55 (71%)	22 (29%)	0 0
46	p	73/75 (97%)	61 (84%)	12 (16%)	2 2
47	q	65/75 (87%)	48 (74%)	17 (26%)	0 0
48	r	48/49 (98%)	38 (79%)	10 (21%)	1 1
49	s	67/70 (96%)	55 (82%)	12 (18%)	2 2
50	t	61/67 (91%)	53 (87%)	8 (13%)	4 4
51	u	40/48 (83%)	32 (80%)	8 (20%)	1 1
52	v	147/147 (100%)	108 (74%)	39 (26%)	0 0
All	All	4440/4751 (94%)	3631 (82%)	809 (18%)	4 1

All (809) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	C	5	LYS
3	C	9	ILE
3	C	10	THR
3	C	13	ARG
3	C	23	GLU
3	C	27	THR
3	C	34	LEU
3	C	37	LEU
3	C	40	LYS
3	C	60	ARG
3	C	64	VAL
3	C	71	LYS
3	C	75	ASN
3	C	93	LEU
3	C	116	VAL

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Mol	Chain	Res	Type
3	C	137	VAL
3	C	139	THR
3	C	146	LEU
3	C	168	GLU
3	C	176	LEU
3	C	180	GLU
3	C	181	VAL
3	C	198	LEU
3	C	203	VAL
3	C	207	LYS
3	C	219	THR
3	C	220	VAL
3	C	241	ILE
3	C	255	LEU
3	C	257	LYS
3	C	261	ARG
3	C	271	VAL
3	C	274	ARG
3	C	275	LYS
4	D	2	THR
4	D	12	MET
4	D	13	THR
4	D	15	VAL
4	D	18	GLU
4	D	21	GLU
4	D	25	VAL
4	D	27	VAL
4	D	36	LEU
4	D	40	THR
4	D	42	GLU
4	D	44	ASP
4	D	74	GLU
4	D	86	ARG
4	D	100	GLU
4	D	101	VAL
4	D	107	VAL
4	D	137	SER
4	D	138	ARG
4	D	145	SER
4	D	156	MET
4	D	159	ASP
4	D	176	ASN

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Mol	Chain	Res	Type
4	D	177	THR
4	D	178	VAL
4	D	179	THR
4	D	200	ASN
4	D	215	ILE
5	E	9	LEU
5	E	13	LYS
5	E	16	SER
5	E	17	ILE
5	E	33	LEU
5	E	62	ARG
5	E	82	GLN
5	E	84	ARG
5	E	93	THR
5	E	101	MET
5	E	108	LEU
5	E	115	SER
5	E	119	GLN
5	E	125	VAL
5	E	144	SER
5	E	146	LEU
5	E	150	LYS
5	E	154	VAL
5	E	163	VAL
5	E	165	LEU
5	E	166	SER
5	E	176	THR
5	E	192	LEU
5	E	193	VAL
5	E	194	ILE
5	E	204	GLU
5	E	206	LEU
6	F	4	LEU
6	F	24	SER
6	F	31	ILE
6	F	44	VAL
6	F	48	LYS
6	F	50	LEU
6	F	57	LEU
6	F	61	THR
6	F	67	VAL
6	F	74	ILE

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Mol	Chain	Res	Type
6	F	76	THR
6	F	100	LEU
6	F	102	LYS
6	F	104	ILE
6	F	109	PRO
6	F	110	ARG
6	F	117	VAL
6	F	120	LYS
6	F	125	ARG
6	F	128	TYR
6	F	136	LEU
6	F	137	ILE
6	F	142	ASP
6	F	145	LYS
6	F	150	ARG
6	F	153	ASP
6	F	161	ASN
6	F	172	ASN
7	G	3	ARG
7	G	15	VAL
7	G	25	THR
7	G	30	LYS
7	G	34	SER
7	G	36	THR
7	G	39	GLU
7	G	43	PHE
7	G	44	LYS
7	G	49	THR
7	G	74	ASN
7	G	77	GLN
7	G	79	VAL
7	G	87	LEU
7	G	99	GLN
7	G	103	LEU
7	G	120	ASN
7	G	121	ILE
7	G	137	SER
7	G	155	GLU
8	H	1	MET
8	H	3	GLN
8	H	12	ILE
8	H	25	THR

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Mol	Chain	Res	Type
8	H	29	LEU
8	H	37	LEU
8	H	46	THR
8	H	49	VAL
8	H	51	THR
8	H	66	THR
8	H	74	VAL
8	H	87	SER
8	H	93	LEU
8	H	95	ARG
8	H	100	ARG
8	H	112	SER
8	H	114	ARG
8	H	125	VAL
8	H	136	GLN
8	H	144	ARG
9	I	6	THR
9	I	9	LYS
9	I	19	VAL
9	I	20	LEU
9	I	21	THR
9	I	40	VAL
9	I	42	THR
9	I	66	LYS
9	I	81	GLU
9	I	105	GLU
9	I	106	LEU
9	I	108	GLU
9	I	110	ASN
9	I	112	MET
9	I	116	SER
9	I	120	GLU
10	J	3	LEU
10	J	6	LEU
10	J	12	SER
10	J	18	ARG
10	J	19	VAL
10	J	46	VAL
10	J	51	GLU
10	J	57	LEU
10	J	61	LEU
10	J	64	ARG

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Mol	Chain	Res	Type
10	J	69	ILE
10	J	71	ARG
10	J	77	VAL
10	J	79	LEU
10	J	83	ASN
10	J	91	VAL
10	J	96	LEU
10	J	98	GLU
10	J	99	SER
10	J	103	LYS
10	J	105	GLU
10	J	107	SER
10	J	110	LYS
10	J	121	LEU
11	K	17	THR
11	K	37	THR
11	K	45	ARG
11	K	64	VAL
11	K	77	LYS
11	K	90	VAL
11	K	96	VAL
11	K	97	VAL
11	K	110	SER
11	K	122	SER
11	K	125	LEU
11	K	129	THR
12	L	8	ARG
12	L	9	THR
12	L	11	ASP
12	L	17	LEU
12	L	20	LEU
12	L	24	LEU
12	L	29	ARG
12	L	33	THR
12	L	45	GLU
12	L	47	LEU
12	L	58	SER
12	L	77	THR
12	L	95	GLU
12	L	104	LEU
12	L	112	ASP
12	L	117	VAL

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Mol	Chain	Res	Type
12	L	121	LEU
13	M	6	ASP
13	M	19	ARG
13	M	20	THR
13	M	21	ASN
13	M	22	LEU
13	M	35	ARG
13	M	52	THR
13	M	59	LYS
13	M	66	THR
13	M	68	THR
13	M	80	ILE
13	M	86	ASP
13	M	87	LYS
13	M	108	LEU
13	M	115	SER
14	N	17	THR
14	N	19	LEU
14	N	42	ILE
14	N	44	VAL
14	N	52	ARG
14	N	57	VAL
14	N	74	ARG
14	N	90	ARG
14	N	98	LYS
14	N	102	LEU
15	O	20	LEU
15	O	41	LYS
15	O	51	ARG
15	O	74	MET
15	O	83	LEU
15	O	84	LYS
15	O	90	ILE
15	O	96	SER
15	O	103	GLU
16	P	10	LYS
16	P	16	GLU
16	P	22	VAL
16	P	25	LEU
16	P	26	ASP
16	P	27	VAL
16	P	34	THR

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Mol	Chain	Res	Type
16	P	36	ASP
16	P	61	THR
16	P	63	ASN
16	P	65	GLN
16	P	67	ARG
16	P	79	ARG
16	P	80	LYS
16	P	86	LYS
16	P	98	ASP
16	P	100	ILE
17	Q	6	VAL
17	Q	19	LEU
17	Q	81	THR
17	Q	95	ASN
17	Q	104	VAL
17	Q	105	VAL
18	R	5	ASP
18	R	6	ILE
18	R	13	THR
18	R	14	GLU
18	R	16	SER
18	R	28	ASP
18	R	47	ASN
18	R	53	VAL
18	R	56	MET
18	R	64	ARG
18	R	68	TYR
18	R	69	GLN
18	R	72	THR
18	R	76	ARG
18	R	80	VAL
18	R	89	LEU
19	S	15	LYS
19	S	19	LYS
19	S	20	GLU
19	S	23	VAL
19	S	24	ILE
19	S	26	THR
19	S	34	VAL
19	S	45	GLN
19	S	56	ILE
19	S	57	LEU

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Mol	Chain	Res	Type
19	S	60	GLU
19	S	66	SER
19	S	75	THR
19	S	79	THR
19	S	85	PHE
19	S	97	SER
20	T	15	ARG
20	T	17	ASP
20	T	21	LEU
20	T	26	LYS
20	T	30	VAL
20	T	53	ARG
20	T	55	VAL
20	T	72	VAL
20	T	89	ILE
20	T	92	LEU
21	U	19	LYS
21	U	24	SER
21	U	28	ARG
21	U	29	LEU
21	U	47	ARG
21	U	67	LEU
21	U	72	ASP
21	U	74	VAL
21	U	75	VAL
21	U	82	ARG
21	U	87	VAL
21	U	88	SER
22	V	27	ARG
22	V	33	LEU
22	V	41	ASP
23	W	2	LYS
23	W	4	LYS
23	W	11	THR
23	W	25	LEU
23	W	30	PHE
23	W	39	GLU
23	W	47	ARG
23	W	52	ARG
23	W	61	GLU
23	W	63	GLU
24	X	12	VAL

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Mol	Chain	Res	Type
24	X	15	ARG
24	X	17	GLU
24	X	18	THR
24	X	20	ARG
24	X	38	GLU
24	X	50	VAL
24	X	56	VAL
25	Y	1	MET
25	Y	5	ILE
25	Y	38	GLU
26	Z	5	LYS
26	Z	6	ARG
26	Z	7	ARG
26	Z	8	THR
26	Z	11	THR
26	Z	18	THR
26	Z	30	CYS
26	Z	37	LYS
26	Z	40	HIS
26	Z	42	VAL
27	1	14	ASP
27	1	15	ARG
27	1	19	THR
27	1	36	CYS
27	1	43	THR
27	1	44	LEU
28	2	26	LYS
28	2	40	ARG
29	3	14	VAL
29	3	15	LYS
29	3	30	SER
29	3	31	HIS
29	3	32	LEU
29	3	59	LYS
29	3	62	LEU
29	3	65	LYS
30	4	2	LYS
30	4	11	CYS
30	4	15	LYS
30	4	27	CYS
32	b	7	LYS
32	b	9	LEU

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Mol	Chain	Res	Type
32	b	11	GLU
32	b	14	VAL
32	b	15	HIS
32	b	20	THR
32	b	21	ARG
32	b	28	LYS
32	b	29	LYS
32	b	43	LEU
32	b	50	VAL
32	b	51	ASP
32	b	58	LYS
32	b	59	GLN
32	b	60	VAL
32	b	75	GLN
32	b	81	LYS
32	b	83	GLU
32	b	89	GLN
32	b	92	ILE
32	b	113	ARG
32	b	116	GLU
32	b	123	ASP
32	b	126	PHE
32	b	127	GLU
32	b	128	VAL
32	b	131	LYS
32	b	139	LYS
32	b	144	LEU
32	b	148	LEU
32	b	157	MET
32	b	161	LEU
32	b	164	VAL
32	b	169	GLU
32	b	170	ARG
32	b	173	ILE
32	b	184	VAL
32	b	186	ILE
32	b	205	ASP
32	b	213	LEU
32	b	221	ILE
32	b	223	GLU
33	c	5	ILE
33	c	32	LEU

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Mol	Chain	Res	Type
33	c	36	LEU
33	c	40	LYS
33	c	42	ILE
33	c	48	GLU
33	c	57	GLU
33	c	63	ILE
33	c	78	LYS
33	c	94	THR
33	c	95	ASP
33	c	105	ILE
33	c	108	VAL
33	c	111	ASP
33	c	114	LEU
33	c	118	ASN
33	c	121	ARG
33	c	128	SER
33	c	131	ARG
33	c	143	LEU
33	c	148	ILE
33	c	150	THR
33	c	160	ASP
33	c	165	GLU
33	c	166	GLN
33	c	167	TYR
33	c	172	VAL
33	c	174	LEU
33	c	177	LEU
33	c	178	ARG
33	c	191	THR
33	c	197	VAL
33	c	201	ILE
33	c	202	TYR
34	d	4	PHE
34	d	10	LYS
34	d	11	LYS
34	d	22	THR
34	d	26	LEU
34	d	35	GLN
34	d	51	LEU
34	d	52	ARG
34	d	55	GLN
34	d	61	TYR

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Mol	Chain	Res	Type
34	d	63	MET
34	d	65	GLU
34	d	71	THR
34	d	74	ILE
34	d	77	LYS
34	d	84	GLU
34	d	89	LEU
34	d	93	ARG
34	d	95	ASP
34	d	103	LEU
34	d	107	ARG
34	d	111	ARG
34	d	115	ASN
34	d	141	VAL
34	d	163	GLU
34	d	165	LEU
34	d	193	LEU
35	e	10	GLU
35	e	13	GLU
35	e	15	VAL
35	e	31	PHE
35	e	32	ARG
35	e	65	GLU
35	e	72	VAL
35	e	88	ARG
35	e	93	SER
35	e	105	VAL
35	e	106	ILE
35	e	114	VAL
35	e	123	ILE
35	e	124	LEU
35	e	132	THR
35	e	137	VAL
35	e	141	ILE
35	e	156	LEU
35	e	157	ARG
35	e	163	GLU
36	f	6	VAL
36	f	10	VAL
36	f	20	LYS
36	f	22	LEU
36	f	39	GLU

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Mol	Chain	Res	Type
36	f	42	ASP
36	f	52	ILE
36	f	55	PHE
36	f	56	LYS
36	f	57	ASP
36	f	73	THR
36	f	76	PHE
36	f	84	ASP
36	f	86	ILE
36	f	87	ILE
36	f	91	VAL
37	g	7	VAL
37	g	11	ASP
37	g	12	VAL
37	g	22	LEU
37	g	24	THR
37	g	29	LYS
37	g	32	LEU
37	g	38	THR
37	g	41	ARG
37	g	48	ASP
37	g	64	GLU
37	g	94	GLU
37	g	99	LEU
37	g	105	VAL
37	g	109	ARG
37	g	115	THR
37	g	120	LEU
37	g	125	LEU
37	g	131	THR
37	g	137	LYS
37	g	144	MET
37	g	148	ASN
38	h	3	MET
38	h	7	ILE
38	h	10	MET
38	h	20	VAL
38	h	24	LYS
38	h	26	GLU
38	h	27	LEU
38	h	32	ILE
38	h	39	ILE

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Mol	Chain	Res	Type
38	h	46	ILE
38	h	47	LYS
38	h	53	GLU
38	h	59	VAL
38	h	60	LEU
38	h	61	ARG
38	h	62	LEU
38	h	70	ASP
38	h	82	LYS
38	h	94	MET
38	h	96	LYS
38	h	101	LEU
38	h	105	LEU
38	h	112	VAL
38	h	113	ILE
38	h	114	THR
38	h	115	ASP
38	h	120	LYS
39	i	17	SER
39	i	20	ARG
39	i	31	THR
39	i	32	VAL
39	i	37	VAL
39	i	38	ARG
39	i	40	TYR
39	i	43	PHE
39	i	54	PHE
39	i	56	VAL
39	i	57	THR
39	i	60	LYS
39	i	101	LYS
39	i	112	MET
39	i	129	PHE
40	j	7	ARG
40	j	10	LEU
40	j	11	LYS
40	j	20	GLN
40	j	27	GLU
40	j	31	ARG
40	j	35	ASP
40	j	45	GLU
40	j	50	THR

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Mol	Chain	Res	Type
40	j	55	VAL
40	j	65	PHE
40	j	72	ARG
40	j	77	VAL
40	j	80	THR
40	j	88	MET
41	k	32	VAL
41	k	36	ASP
41	k	37	GLU
41	k	53	LYS
41	k	59	THR
41	k	64	GLN
41	k	69	THR
41	k	82	VAL
41	k	94	GLU
41	k	100	LEU
41	k	101	GLN
41	k	105	LEU
41	k	108	THR
41	k	121	CYS
42	l	3	THR
42	l	26	LYS
42	l	31	LYS
42	l	36	THR
42	l	38	LEU
42	l	39	ASN
42	l	42	GLN
42	l	44	ARG
42	l	47	CYS
42	l	54	THR
42	l	62	LEU
42	l	63	ARG
42	l	67	ARG
42	l	80	ILE
42	l	88	GLN
42	l	89	GLU
42	l	99	ARG
42	l	100	VAL
42	l	106	VAL
42	l	112	ARG
42	l	115	LEU
42	l	120	VAL

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Mol	Chain	Res	Type
42	l	128	SER
42	l	129	LEU
42	l	134	LYS
43	m	9	ILE
43	m	20	THR
43	m	22	ILE
43	m	31	GLN
43	m	35	GLU
43	m	57	ARG
43	m	59	VAL
43	m	63	TYR
43	m	64	LYS
43	m	68	ASP
43	m	80	LEU
43	m	89	ILE
43	m	95	LEU
43	m	100	GLN
43	m	102	THR
43	m	107	ARG
43	m	108	THR
44	n	4	THR
44	n	14	GLN
44	n	22	THR
44	n	24	CYS
44	n	27	CYS
44	n	29	ARG
44	n	31	HIS
44	n	33	VAL
44	n	35	ARG
44	n	38	LYS
44	n	44	PHE
44	n	45	ARG
44	n	52	GLN
44	n	53	ILE
44	n	56	VAL
44	n	61	TRP
45	o	3	ILE
45	o	8	LYS
45	o	11	ILE
45	o	14	GLU
45	o	15	TYR
45	o	17	VAL

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Mol	Chain	Res	Type
45	o	27	VAL
45	o	28	GLN
45	o	32	LEU
45	o	40	ASN
45	o	42	HIS
45	o	43	LEU
45	o	47	LYS
45	o	48	LYS
45	o	50	HIS
45	o	54	ARG
45	o	56	LEU
45	o	74	ASP
45	o	78	TYR
45	o	80	GLU
45	o	81	LEU
45	o	85	LEU
46	p	4	LYS
46	p	7	LEU
46	p	22	VAL
46	p	32	ARG
46	p	39	THR
46	p	53	ASP
46	p	54	GLU
46	p	59	LYS
46	p	68	THR
46	p	74	ILE
46	p	78	GLU
46	p	81	MET
47	q	13	LYS
47	q	14	VAL
47	q	26	LEU
47	q	29	THR
47	q	34	LYS
47	q	39	ARG
47	q	48	THR
47	q	51	GLU
47	q	52	ASN
47	q	67	ARG
47	q	70	SER
47	q	76	ARG
47	q	77	LEU
47	q	78	VAL

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Mol	Chain	Res	Type
47	q	80	ILE
47	q	81	VAL
47	q	83	GLU
48	r	24	THR
48	r	33	LEU
48	r	50	THR
48	r	55	LYS
48	r	57	GLN
48	r	60	LEU
48	r	65	LYS
48	r	72	LEU
48	r	75	TYR
48	r	76	VAL
49	s	15	LEU
49	s	17	LYS
49	s	19	VAL
49	s	29	GLN
49	s	30	VAL
49	s	31	ILE
49	s	44	PHE
49	s	48	THR
49	s	61	TYR
49	s	64	GLU
49	s	67	VAL
49	s	69	HIS
50	t	8	ILE
50	t	14	THR
50	t	15	GLU
50	t	22	ILE
50	t	33	LYS
50	t	49	LEU
50	t	67	HIS
50	t	73	ARG
51	u	12	LEU
51	u	14	ASP
51	u	17	ARG
51	u	18	ARG
51	u	33	ARG
51	u	38	TYR
51	u	43	VAL
51	u	47	LYS
52	v	2	ILE

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Mol	Chain	Res	Type
52	v	3	ARG
52	v	4	PHE
52	v	14	THR
52	v	17	ILE
52	v	27	LYS
52	v	28	LEU
52	v	30	ARG
52	v	34	ASP
52	v	35	VAL
52	v	39	VAL
52	v	44	VAL
52	v	45	LYS
52	v	46	THR
52	v	57	THR
52	v	58	ILE
52	v	60	LEU
52	v	63	VAL
52	v	68	GLU
52	v	73	ASP
52	v	78	ILE
52	v	83	ASN
52	v	84	LYS
52	v	85	LEU
52	v	89	VAL
52	v	90	ARG
52	v	93	LYS
52	v	95	ARG
52	v	102	ASP
52	v	103	ARG
52	v	144	MET
52	v	151	LEU
52	v	155	LEU
52	v	159	ASP
52	v	162	VAL
52	v	164	THR
52	v	165	ASP
52	v	168	THR
52	v	176	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (84) such sidechains are listed below:

Mol	Chain	Res	Type
3	C	86	ASN
3	C	153	GLN
3	C	226	ASN
3	C	230	HIS
3	C	232	HIS
4	D	33	ASN
4	D	47	ASN
4	D	50	GLN
5	E	75	GLN
5	E	82	GLN
7	G	74	ASN
7	G	97	GLN
8	H	24	GLN
9	I	3	GLN
10	J	54	GLN
11	K	25	ASN
11	K	35	GLN
11	K	46	GLN
11	K	71	HIS
13	M	37	ASN
13	M	39	HIS
13	M	43	GLN
13	M	48	ASN
15	O	44	GLN
15	O	81	ASN
16	P	18	GLN
16	P	63	ASN
16	P	65	GLN
17	Q	61	ASN
18	R	37	GLN
19	S	8	ASN
19	S	67	ASN
21	U	37	GLN
24	X	19	GLN
25	Y	3	GLN
28	2	7	GLN
29	3	35	ASN
29	3	60	GLN
32	b	55	ASN
32	b	77	GLN
32	b	93	ASN
32	b	94	GLN
32	b	103	ASN

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Mol	Chain	Res	Type
32	b	203	ASN
33	c	135	GLN
34	d	35	GLN
34	d	55	GLN
34	d	67	GLN
34	d	85	ASN
34	d	118	HIS
34	d	137	GLN
36	f	53	ASN
36	f	70	ASN
36	f	77	GLN
37	g	18	HIS
37	g	130	ASN
37	g	148	ASN
38	h	22	HIS
39	i	16	ASN
39	i	29	ASN
39	i	62	ASN
39	i	68	ASN
39	i	128	GLN
40	j	15	HIS
41	k	40	ASN
41	k	64	GLN
42	l	42	GLN
42	l	85	HIS
44	n	11	GLN
45	o	9	ASN
45	o	28	GLN
45	o	40	ASN
49	s	22	GLN
49	s	29	GLN
49	s	43	ASN
49	s	69	HIS
50	t	21	ASN
50	t	34	ASN
50	t	62	GLN
50	t	64	ASN
50	t	69	ASN
52	v	7	HIS
52	v	88	GLN
52	v	186	GLN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	A	2897/2905 (99%)	1345 (46%)	256 (8%)
2	B	114/115 (99%)	32 (28%)	2 (1%)
31	a	1537/1539 (99%)	710 (46%)	0
All	All	4548/4559 (99%)	2087 (45%)	258 (5%)

All (2087) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	A	4	U
1	A	5	A
1	A	12	U
1	A	13	A
1	A	14	A
1	A	22	C
1	A	24	G
1	A	26	G
1	A	27	G
1	A	28	A
1	A	32	C
1	A	33	U
1	A	34	U
1	A	35	G
1	A	36	G
1	A	37	C
1	A	39	C
1	A	43	A
1	A	44	A
1	A	45	G
1	A	46	C
1	A	47	C
1	A	48	G
1	A	49	A
1	A	50	U
1	A	51	G
1	A	53	A
1	A	54	G
1	A	58	G
1	A	63	U
1	A	64	A
1	A	65	A
1	A	67	G

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Mol	Chain	Res	Type
1	A	69	C
1	A	71	A
1	A	74	U
1	A	75	G
1	A	82	G
1	A	84	A
1	A	88	G
1	A	90	A
1	A	91	A
1	A	92	G
1	A	94	A
1	A	95	A
1	A	96	G
1	A	97	C
1	A	98	U
1	A	99	U
1	A	100	U
1	A	101	G
1	A	102	A
1	A	103	U
1	A	105	C
1	A	109	G
1	A	117	A
1	A	118	A
1	A	119	U
1	A	125	A
1	A	130	A
1	A	140	A
1	A	141	U
1	A	150	A
1	A	151	U
1	A	156	A
1	A	157	U
1	A	158	G
1	A	161	A
1	A	167	U
1	A	168	A
1	A	170	C
1	A	172	U
1	A	174	U
1	A	176	A
1	A	177	G

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Mol	Chain	Res	Type
1	A	178	A
1	A	180	G
1	A	181	G
1	A	182	C
1	A	183	A
1	A	184	C
1	A	186	C
1	A	194	A
1	A	199	A
1	A	200	A
1	A	201	C
1	A	202	A
1	A	203	U
1	A	210	A
1	A	216	A
1	A	218	G
1	A	219	A
1	A	224	A
1	A	225	A
1	A	227	G
1	A	229	A
1	A	230	A
1	A	232	U
1	A	233	U
1	A	235	G
1	A	236	A
1	A	237	U
1	A	240	C
1	A	241	C
1	A	242	U
1	A	243	U
1	A	248	G
1	A	251	G
1	A	253	G
1	A	255	G
1	A	262	G
1	A	263	G
1	A	264	G
1	A	267	G
1	A	269	G
1	A	270	C
1	A	271	C

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Mol	Chain	Res	Type
1	A	272	C
1	A	275	A
1	A	283	G
1	A	286	U
1	A	287	G
1	A	289	U
1	A	292	U
1	A	295	G
1	A	297	G
1	A	298	U
1	A	299	U
1	A	300	G
1	A	301	U
1	A	302	A
1	A	303	G
1	A	305	A
1	A	306	C
1	A	307	A
1	A	308	C
1	A	310	C
1	A	311	U
1	A	315	C
1	A	317	G
1	A	318	A
1	A	320	U
1	A	324	A
1	A	325	A
1	A	326	A
1	A	327	G
1	A	328	G
1	A	329	A
1	A	330	C
1	A	331	G
1	A	332	A
1	A	333	C
1	A	334	A
1	A	335	U
1	A	336	U
1	A	337	A
1	A	338	G
1	A	340	C
1	A	341	G

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Mol	Chain	Res	Type
1	A	342	A
1	A	344	U
1	A	345	C
1	A	346	A
1	A	348	C
1	A	349	U
1	A	350	G
1	A	351	G
1	A	352	A
1	A	353	A
1	A	354	A
1	A	355	G
1	A	356	A
1	A	357	U
1	A	359	A
1	A	362	C
1	A	363	A
1	A	364	A
1	A	365	A
1	A	366	G
1	A	367	A
1	A	368	A
1	A	371	U
1	A	372	A
1	A	373	A
1	A	374	U
1	A	375	A
1	A	376	A
1	A	377	U
1	A	378	C
1	A	379	C
1	A	380	U
1	A	381	G
1	A	382	U
1	A	383	A
1	A	388	A
1	A	389	A
1	A	391	A
1	A	392	U
1	A	393	G
1	A	394	U
1	A	395	U

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Mol	Chain	Res	Type
1	A	398	C
1	A	400	C
1	A	401	U
1	A	402	C
1	A	403	U
1	A	404	U
1	A	405	G
1	A	406	A
1	A	407	G
1	A	408	U
1	A	409	G
1	A	410	G
1	A	411	A
1	A	412	U
1	A	413	C
1	A	416	G
1	A	417	A
1	A	420	A
1	A	422	G
1	A	423	A
1	A	425	G
1	A	429	C
1	A	432	G
1	A	433	U
1	A	434	G
1	A	435	A
1	A	437	A
1	A	438	U
1	A	439	U
1	A	444	C
1	A	445	G
1	A	447	A
1	A	449	U
1	A	451	U
1	A	452	G
1	A	457	G
1	A	458	A
1	A	459	C
1	A	460	C
1	A	461	A
1	A	462	U
1	A	463	C

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Mol	Chain	Res	Type
1	A	464	U
1	A	467	U
1	A	468	A
1	A	470	G
1	A	472	C
1	A	474	A
1	A	476	A
1	A	477	U
1	A	479	C
1	A	480	U
1	A	481	C
1	A	484	U
1	A	488	G
1	A	489	A
1	A	490	C
1	A	491	C
1	A	492	G
1	A	493	A
1	A	494	U
1	A	495	A
1	A	497	U
1	A	500	A
1	A	501	C
1	A	506	A
1	A	510	U
1	A	512	A
1	A	513	G
1	A	514	G
1	A	519	G
1	A	520	G
1	A	521	U
1	A	522	G
1	A	523	A
1	A	524	A
1	A	525	A
1	A	526	A
1	A	527	G
1	A	529	A
1	A	531	C
1	A	532	C
1	A	533	C
1	A	534	G

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Mol	Chain	Res	Type
1	A	535	G
1	A	536	A
1	A	541	G
1	A	544	U
1	A	545	G
1	A	546	A
1	A	547	A
1	A	548	A
1	A	550	A
1	A	551	G
1	A	553	A
1	A	554	C
1	A	555	C
1	A	556	U
1	A	557	G
1	A	558	A
1	A	562	C
1	A	563	G
1	A	564	U
1	A	567	G
1	A	568	C
1	A	571	A
1	A	572	C
1	A	573	A
1	A	575	G
1	A	576	U
1	A	577	A
1	A	578	G
1	A	581	A
1	A	582	G
1	A	583	A
1	A	587	C
1	A	588	G
1	A	589	U
1	A	591	A
1	A	592	A
1	A	593	U
1	A	594	G
1	A	595	G
1	A	596	G
1	A	599	A
1	A	600	U

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Mol	Chain	Res	Type
1	A	601	G
1	A	604	G
1	A	605	U
1	A	606	G
1	A	608	C
1	A	614	U
1	A	615	A
1	A	616	G
1	A	617	A
1	A	618	A
1	A	621	A
1	A	622	A
1	A	623	C
1	A	624	C
1	A	626	G
1	A	627	C
1	A	628	G
1	A	629	A
1	A	630	G
1	A	631	U
1	A	633	A
1	A	634	C
1	A	635	G
1	A	638	U
1	A	639	U
1	A	640	G
1	A	641	A
1	A	644	C
1	A	645	A
1	A	646	A
1	A	647	G
1	A	648	G
1	A	649	U
1	A	650	U
1	A	651	A
1	A	657	U
1	A	658	A
1	A	659	A
1	A	660	A
1	A	665	G
1	A	667	G
1	A	668	C

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Mol	Chain	Res	Type
1	A	669	C
1	A	672	A
1	A	675	G
1	A	679	G
1	A	682	A
1	A	689	A
1	A	690	U
1	A	691	A
1	A	694	G
1	A	699	U
1	A	700	A
1	A	702	U
1	A	703	A
1	A	704	U
1	A	707	G
1	A	708	G
1	A	709	U
1	A	710	C
1	A	713	A
1	A	714	G
1	A	715	A
1	A	720	A
1	A	722	A
1	A	729	G
1	A	731	U
1	A	746	G
1	A	753	U
1	A	754	U
1	A	756	A
1	A	758	G
1	A	759	U
1	A	760	A
1	A	761	A
1	A	762	C
1	A	763	A
1	A	766	G
1	A	768	A
1	A	775	A
1	A	781	C
1	A	783	G
1	A	785	C
1	A	792	U

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Mol	Chain	Res	Type
1	A	793	G
1	A	797	A
1	A	802	G
1	A	809	A
1	A	810	A
1	A	820	G
1	A	822	G
1	A	827	A
1	A	829	U
1	A	834	A
1	A	835	U
1	A	836	C
1	A	837	G
1	A	839	A
1	A	842	U
1	A	850	G
1	A	856	U
1	A	857	C
1	A	858	U
1	A	859	C
1	A	860	U
1	A	861	C
1	A	863	G
1	A	864	A
1	A	865	A
1	A	866	A
1	A	867	U
1	A	868	A
1	A	872	U
1	A	873	U
1	A	874	A
1	A	875	G
1	A	876	G
1	A	883	C
1	A	884	U
1	A	891	A
1	A	892	U
1	A	893	G
1	A	894	A
1	A	895	U
1	A	896	U
1	A	897	A

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Mol	Chain	Res	Type
1	A	899	U
1	A	901	G
1	A	904	G
1	A	905	U
1	A	909	G
1	A	910	C
1	A	911	A
1	A	912	C
1	A	918	G
1	A	919	G
1	A	920	A
1	A	921	C
1	A	922	G
1	A	923	A
1	A	924	G
1	A	925	G
1	A	927	G
1	A	938	G
1	A	939	U
1	A	940	U
1	A	944	G
1	A	947	U
1	A	948	U
1	A	949	C
1	A	954	A
1	A	955	A
1	A	957	C
1	A	959	C
1	A	961	G
1	A	962	A
1	A	967	C
1	A	969	A
1	A	970	U
1	A	971	U
1	A	972	A
1	A	973	A
1	A	974	U
1	A	976	U
1	A	977	A
1	A	978	A
1	A	985	A
1	A	986	G

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Mol	Chain	Res	Type
1	A	988	C
1	A	989	A
1	A	990	G
1	A	991	A
1	A	993	C
1	A	994	A
1	A	995	U
1	A	996	G
1	A	997	G
1	A	998	G
1	A	1001	A
1	A	1002	U
1	A	1004	A
1	A	1005	G
1	A	1006	G
1	A	1007	U
1	A	1009	C
1	A	1011	U
1	A	1012	G
1	A	1014	U
1	A	1015	C
1	A	1018	A
1	A	1019	A
1	A	1020	G
1	A	1022	G
1	A	1023	A
1	A	1024	A
1	A	1025	A
1	A	1026	C
1	A	1027	A
1	A	1028	G
1	A	1029	C
1	A	1030	C
1	A	1031	C
1	A	1033	G
1	A	1034	A
1	A	1035	C
1	A	1037	A
1	A	1038	C
1	A	1039	C
1	A	1040	A
1	A	1041	G

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Mol	Chain	Res	Type
1	A	1044	A
1	A	1045	A
1	A	1046	G
1	A	1047	G
1	A	1049	C
1	A	1050	C
1	A	1051	C
1	A	1052	A
1	A	1053	A
1	A	1055	A
1	A	1056	U
1	A	1057	A
1	A	1058	U
1	A	1063	U
1	A	1064	A
1	A	1065	A
1	A	1066	G
1	A	1067	U
1	A	1069	G
1	A	1070	A
1	A	1071	A
1	A	1073	A
1	A	1074	G
1	A	1077	U
1	A	1078	G
1	A	1080	G
1	A	1083	G
1	A	1084	U
1	A	1085	U
1	A	1087	C
1	A	1088	C
1	A	1089	C
1	A	1090	A
1	A	1091	G
1	A	1092	A
1	A	1093	C
1	A	1094	A
1	A	1095	A
1	A	1100	G
1	A	1103	G
1	A	1104	U
1	A	1105	U

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Mol	Chain	Res	Type
1	A	1106	G
1	A	1109	U
1	A	1110	U
1	A	1111	A
1	A	1113	A
1	A	1114	A
1	A	1115	G
1	A	1117	A
1	A	1118	G
1	A	1119	C
1	A	1120	C
1	A	1122	U
1	A	1125	U
1	A	1127	U
1	A	1128	A
1	A	1132	A
1	A	1133	G
1	A	1138	U
1	A	1139	A
1	A	1141	U
1	A	1143	G
1	A	1145	U
1	A	1149	U
1	A	1150	A
1	A	1151	G
1	A	1152	U
1	A	1153	C
1	A	1155	A
1	A	1156	G
1	A	1158	G
1	A	1160	C
1	A	1161	A
1	A	1162	C
1	A	1163	U
1	A	1164	G
1	A	1165	C
1	A	1168	C
1	A	1169	G
1	A	1170	A
1	A	1172	A
1	A	1174	U
1	A	1175	G

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Mol	Chain	Res	Type
1	A	1176	U
1	A	1177	A
1	A	1178	C
1	A	1180	G
1	A	1181	G
1	A	1183	G
1	A	1184	C
1	A	1185	U
1	A	1186	A
1	A	1187	A
1	A	1188	A
1	A	1189	C
1	A	1191	U
1	A	1192	A
1	A	1193	U
1	A	1194	U
1	A	1195	A
1	A	1196	C
1	A	1197	C
1	A	1198	G
1	A	1199	A
1	A	1200	A
1	A	1201	G
1	A	1202	C
1	A	1203	U
1	A	1204	G
1	A	1208	A
1	A	1209	U
1	A	1214	C
1	A	1215	U
1	A	1216	U
1	A	1217	U
1	A	1219	G
1	A	1220	A
1	A	1222	A
1	A	1224	U
1	A	1225	G
1	A	1226	G
1	A	1227	U
1	A	1228	A
1	A	1231	A
1	A	1232	G

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Mol	Chain	Res	Type
1	A	1233	A
1	A	1234	G
1	A	1236	G
1	A	1237	U
1	A	1240	U
1	A	1241	A
1	A	1247	G
1	A	1248	U
1	A	1249	U
1	A	1250	G
1	A	1251	A
1	A	1252	A
1	A	1256	U
1	A	1257	G
1	A	1258	A
1	A	1259	U
1	A	1261	G
1	A	1263	A
1	A	1264	A
1	A	1265	G
1	A	1266	G
1	A	1267	A
1	A	1268	C
1	A	1269	A
1	A	1270	U
1	A	1273	G
1	A	1274	G
1	A	1275	A
1	A	1276	G
1	A	1278	G
1	A	1286	G
1	A	1287	U
1	A	1289	A
1	A	1290	G
1	A	1291	A
1	A	1294	G
1	A	1295	C
1	A	1298	G
1	A	1299	U
1	A	1301	U
1	A	1303	A
1	A	1304	G

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Mol	Chain	Res	Type
1	A	1305	U
1	A	1309	G
1	A	1310	A
1	A	1311	A
1	A	1312	A
1	A	1321	A
1	A	1324	A
1	A	1325	U
1	A	1333	A
1	A	1337	A
1	A	1338	U
1	A	1351	C
1	A	1354	G
1	A	1357	G
1	A	1359	A
1	A	1361	G
1	A	1363	U
1	A	1364	C
1	A	1365	G
1	A	1366	U
1	A	1367	C
1	A	1368	C
1	A	1369	G
1	A	1370	C
1	A	1373	U
1	A	1374	G
1	A	1375	G
1	A	1387	C
1	A	1389	U
1	A	1402	A
1	A	1405	G
1	A	1409	U
1	A	1416	U
1	A	1422	A
1	A	1425	G
1	A	1432	A
1	A	1433	U
1	A	1450	A
1	A	1451	U
1	A	1452	C
1	A	1453	G
1	A	1454	U

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Mol	Chain	Res	Type
1	A	1455	U
1	A	1456	U
1	A	1459	A
1	A	1460	U
1	A	1462	G
1	A	1463	A
1	A	1464	U
1	A	1467	G
1	A	1471	A
1	A	1472	C
1	A	1479	G
1	A	1480	G
1	A	1488	A
1	A	1489	A
1	A	1490	G
1	A	1491	C
1	A	1494	G
1	A	1495	C
1	A	1496	G
1	A	1497	A
1	A	1498	U
1	A	1503	U
1	A	1504	U
1	A	1506	C
1	A	1509	G
1	A	1510	U
1	A	1514	A
1	A	1516	C
1	A	1519	U
1	A	1520	A
1	A	1525	U
1	A	1526	G
1	A	1527	A
1	A	1528	G
1	A	1533	A
1	A	1534	G
1	A	1537	A
1	A	1540	U
1	A	1541	C
1	A	1545	U
1	A	1550	G
1	A	1552	U

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Mol	Chain	Res	Type
1	A	1553	A
1	A	1554	A
1	A	1555	G
1	A	1556	G
1	A	1561	G
1	A	1562	C
1	A	1566	G
1	A	1567	A
1	A	1569	G
1	A	1570	G
1	A	1574	G
1	A	1575	A
1	A	1576	A
1	A	1577	G
1	A	1581	U
1	A	1582	U
1	A	1583	G
1	A	1584	U
1	A	1586	U
1	A	1587	C
1	A	1588	U
1	A	1591	G
1	A	1592	A
1	A	1594	U
1	A	1597	U
1	A	1601	U
1	A	1602	U
1	A	1603	U
1	A	1605	A
1	A	1606	C
1	A	1613	G
1	A	1616	A
1	A	1628	A
1	A	1629	U
1	A	1630	A
1	A	1631	G
1	A	1632	A
1	A	1633	A
1	A	1634	A
1	A	1635	A
1	A	1636	U
1	A	1639	G

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Mol	Chain	Res	Type
1	A	1651	C
1	A	1652	A
1	A	1653	A
1	A	1654	A
1	A	1658	A
1	A	1661	C
1	A	1663	G
1	A	1666	A
1	A	1676	A
1	A	1678	A
1	A	1690	A
1	A	1692	C
1	A	1693	G
1	A	1694	A
1	A	1695	G
1	A	1697	G
1	A	1698	A
1	A	1699	A
1	A	1713	A
1	A	1718	G
1	A	1719	C
1	A	1726	A
1	A	1732	U
1	A	1736	U
1	A	1737	U
1	A	1738	C
1	A	1740	G
1	A	1744	A
1	A	1757	U
1	A	1758	A
1	A	1759	G
1	A	1760	G
1	A	1761	G
1	A	1762	U
1	A	1763	U
1	A	1764	A
1	A	1765	A
1	A	1766	C
1	A	1767	G
1	A	1768	C
1	A	1771	A
1	A	1772	G

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Mol	Chain	Res	Type
1	A	1789	A
1	A	1790	G
1	A	1791	G
1	A	1797	G
1	A	1800	A
1	A	1803	G
1	A	1811	A
1	A	1815	C
1	A	1820	G
1	A	1826	G
1	A	1827	C
1	A	1828	U
1	A	1829	A
1	A	1843	U
1	A	1847	U
1	A	1856	A
1	A	1857	C
1	A	1860	C
1	A	1866	G
1	A	1875	A
1	A	1877	G
1	A	1884	G
1	A	1885	G
1	A	1886	A
1	A	1890	G
1	A	1893	A
1	A	1895	C
1	A	1897	U
1	A	1898	C
1	A	1899	U
1	A	1900	G
1	A	1901	C
1	A	1902	G
1	A	1903	A
1	A	1904	A
1	A	1909	C
1	A	1910	G
1	A	1911	A
1	A	1912	A
1	A	1913	U
1	A	1914	C
1	A	1933	G

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Mol	Chain	Res	Type
1	A	1937	G
1	A	1938	U
1	A	1939	A
1	A	1945	A
1	A	1946	A
1	A	1949	G
1	A	1950	U
1	A	1951	C
1	A	1952	C
1	A	1954	A
1	A	1956	G
1	A	1957	G
1	A	1964	A
1	A	1965	A
1	A	1972	G
1	A	1982	U
1	A	1993	A
1	A	1994	C
1	A	1996	A
1	A	1997	A
1	A	1998	A
1	A	1999	G
1	A	2009	U
1	A	2018	U
1	A	2019	G
1	A	2020	U
1	A	2023	C
1	A	2024	A
1	A	2037	G
1	A	2038	U
1	A	2043	U
1	A	2044	C
1	A	2045	A
1	A	2046	U
1	A	2047	A
1	A	2048	G
1	A	2049	U
1	A	2050	A
1	A	2052	C
1	A	2053	U
1	A	2054	G
1	A	2057	A

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Mol	Chain	Res	Type
1	A	2058	A
1	A	2059	G
1	A	2060	A
1	A	2061	U
1	A	2062	G
1	A	2063	C
1	A	2064	A
1	A	2065	G
1	A	2067	U
1	A	2070	C
1	A	2073	G
1	A	2077	C
1	A	2078	A
1	A	2079	G
1	A	2081	A
1	A	2082	C
1	A	2083	G
1	A	2084	G
1	A	2085	A
1	A	2086	A
1	A	2087	A
1	A	2088	G
1	A	2089	A
1	A	2090	C
1	A	2091	C
1	A	2094	G
1	A	2095	U
1	A	2096	G
1	A	2097	G
1	A	2104	A
1	A	2107	G
1	A	2119	U
1	A	2120	G
1	A	2126	C
1	A	2127	G
1	A	2129	C
1	A	2130	A
1	A	2132	A
1	A	2133	G
1	A	2136	U
1	A	2139	A
1	A	2140	C

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Mol	Chain	Res	Type
1	A	2142	G
1	A	2143	G
1	A	2144	A
1	A	2146	A
1	A	2147	G
1	A	2153	A
1	A	2155	C
1	A	2158	U
1	A	2160	G
1	A	2161	A
1	A	2162	A
1	A	2164	C
1	A	2165	G
1	A	2173	U
1	A	2175	G
1	A	2179	A
1	A	2180	C
1	A	2181	G
1	A	2185	A
1	A	2186	G
1	A	2188	C
1	A	2190	C
1	A	2193	G
1	A	2194	U
1	A	2195	G
1	A	2198	A
1	A	2199	U
1	A	2200	A
1	A	2203	A
1	A	2204	C
1	A	2206	C
1	A	2210	C
1	A	2211	U
1	A	2215	U
1	A	2224	U
1	A	2225	A
1	A	2231	C
1	A	2232	A
1	A	2235	A
1	A	2238	U
1	A	2239	A
1	A	2240	U

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Mol	Chain	Res	Type
1	A	2241	C
1	A	2252	A
1	A	2262	G
1	A	2265	G
1	A	2266	G
1	A	2273	G
1	A	2274	A
1	A	2275	C
1	A	2276	U
1	A	2277	G
1	A	2284	U
1	A	2285	C
1	A	2295	A
1	A	2305	A
1	A	2310	C
1	A	2316	G
1	A	2320	C
1	A	2321	C
1	A	2322	C
1	A	2324	C
1	A	2326	G
1	A	2328	A
1	A	2330	G
1	A	2331	G
1	A	2332	U
1	A	2333	U
1	A	2334	G
1	A	2335	G
1	A	2336	A
1	A	2337	A
1	A	2338	A
1	A	2339	U
1	A	2345	A
1	A	2346	U
1	A	2347	A
1	A	2348	G
1	A	2349	A
1	A	2352	G
1	A	2354	A
1	A	2358	G
1	A	2359	C
1	A	2360	A

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Mol	Chain	Res	Type
1	A	2362	A
1	A	2363	A
1	A	2364	G
1	A	2365	G
1	A	2366	G
1	A	2369	C
1	A	2370	U
1	A	2371	U
1	A	2372	G
1	A	2373	A
1	A	2374	C
1	A	2377	C
1	A	2378	G
1	A	2379	A
1	A	2380	G
1	A	2381	A
1	A	2382	C
1	A	2388	A
1	A	2391	C
1	A	2393	A
1	A	2396	A
1	A	2397	G
1	A	2410	G
1	A	2412	C
1	A	2417	U
1	A	2418	G
1	A	2419	A
1	A	2420	U
1	A	2427	G
1	A	2428	U
1	A	2429	U
1	A	2430	C
1	A	2432	G
1	A	2434	A
1	A	2435	U
1	A	2441	G
1	A	2442	G
1	A	2443	C
1	A	2445	A
1	A	2446	U
1	A	2447	C
1	A	2448	G

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Mol	Chain	Res	Type
1	A	2449	C
1	A	2450	U
1	A	2451	C
1	A	2452	A
1	A	2453	A
1	A	2454	C
1	A	2455	G
1	A	2456	G
1	A	2457	A
1	A	2458	U
1	A	2459	A
1	A	2460	A
1	A	2461	A
1	A	2462	A
1	A	2465	U
1	A	2467	C
1	A	2468	C
1	A	2473	G
1	A	2474	G
1	A	2475	A
1	A	2476	U
1	A	2477	A
1	A	2478	A
1	A	2479	C
1	A	2480	A
1	A	2481	G
1	A	2482	G
1	A	2483	C
1	A	2495	A
1	A	2497	G
1	A	2498	A
1	A	2499	G
1	A	2500	U
1	A	2502	C
1	A	2503	A
1	A	2504	C
1	A	2505	A
1	A	2506	U
1	A	2508	G
1	A	2509	A
1	A	2510	C
1	A	2513	G

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Mol	Chain	Res	Type
1	A	2516	G
1	A	2517	G
1	A	2518	U
1	A	2519	U
1	A	2520	U
1	A	2523	C
1	A	2524	A
1	A	2525	C
1	A	2526	C
1	A	2527	U
1	A	2528	C
1	A	2529	G
1	A	2530	A
1	A	2532	G
1	A	2543	G
1	A	2544	C
1	A	2545	A
1	A	2546	U
1	A	2547	C
1	A	2550	G
1	A	2551	G
1	A	2560	U
1	A	2561	C
1	A	2562	G
1	A	2568	A
1	A	2569	A
1	A	2570	G
1	A	2578	C
1	A	2579	U
1	A	2581	U
1	A	2582	U
1	A	2586	C
1	A	2593	A
1	A	2594	G
1	A	2595	C
1	A	2596	G
1	A	2597	G
1	A	2598	U
1	A	2599	A
1	A	2600	C
1	A	2605	G
1	A	2611	U

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Mol	Chain	Res	Type
1	A	2613	C
1	A	2626	G
1	A	2629	A
1	A	2630	G
1	A	2636	U
1	A	2638	C
1	A	2640	U
1	A	2643	C
1	A	2644	C
1	A	2645	G
1	A	2646	U
1	A	2647	C
1	A	2651	G
1	A	2652	G
1	A	2653	C
1	A	2654	G
1	A	2655	U
1	A	2656	A
1	A	2657	G
1	A	2659	A
1	A	2661	A
1	A	2662	U
1	A	2663	U
1	A	2664	U
1	A	2665	G
1	A	2666	A
1	A	2667	G
1	A	2668	A
1	A	2669	G
1	A	2672	G
1	A	2673	C
1	A	2677	C
1	A	2678	C
1	A	2679	U
1	A	2680	U
1	A	2681	A
1	A	2683	U
1	A	2684	A
1	A	2686	G
1	A	2690	G
1	A	2691	G
1	A	2692	A

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Mol	Chain	Res	Type
1	A	2697	G
1	A	2703	C
1	A	2704	A
1	A	2705	U
1	A	2716	U
1	A	2741	G
1	A	2753	U
1	A	2756	G
1	A	2757	U
1	A	2759	G
1	A	2760	A
1	A	2761	C
1	A	2771	G
1	A	2775	A
1	A	2777	A
1	A	2778	G
1	A	2779	C
1	A	2782	C
1	A	2788	A
1	A	2792	A
1	A	2793	G
1	A	2796	C
1	A	2797	C
1	A	2798	C
1	A	2802	A
1	A	2803	A
1	A	2804	G
1	A	2805	A
1	A	2806	U
1	A	2807	G
1	A	2808	A
1	A	2809	G
1	A	2811	U
1	A	2812	U
1	A	2813	U
1	A	2816	C
1	A	2817	A
1	A	2818	A
1	A	2819	C
1	A	2820	U
1	A	2821	U
1	A	2822	C

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Mol	Chain	Res	Type
1	A	2823	G
1	A	2824	G
1	A	2825	U
1	A	2827	A
1	A	2828	U
1	A	2829	A
1	A	2830	A
1	A	2831	G
1	A	2833	U
1	A	2840	A
1	A	2841	A
1	A	2844	U
1	A	2850	G
1	A	2851	G
1	A	2852	U
1	A	2853	U
1	A	2854	A
1	A	2855	A
1	A	2856	U
1	A	2857	A
1	A	2863	G
1	A	2864	A
1	A	2868	G
1	A	2869	G
1	A	2870	A
1	A	2878	U
1	A	2879	G
1	A	2886	G
1	A	2887	G
1	A	2888	A
1	A	2889	G
1	A	2891	U
1	A	2892	G
1	A	2893	A
1	A	2894	C
1	A	2895	G
1	A	2896	A
1	A	2897	A
1	A	2898	U
1	A	2899	A
1	A	2900	C
1	A	2903	A

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Mol	Chain	Res	Type
1	A	2904	U
1	A	2905	C
1	A	2906	G
1	A	2911	A
1	A	2913	G
1	A	2914	A
1	A	2915	C
1	A	2917	U
1	A	2919	A
1	A	2920	U
2	B	2	C
2	B	3	U
2	B	5	G
2	B	7	G
2	B	10	U
2	B	11	A
2	B	13	A
2	B	15	C
2	B	22	G
2	B	23	U
2	B	24	C
2	B	25	A
2	B	26	C
2	B	27	A
2	B	28	C
2	B	30	U
2	B	31	G
2	B	33	U
2	B	38	U
2	B	39	G
2	B	42	G
2	B	50	A
2	B	51	A
2	B	55	A
2	B	84	U
2	B	85	U
2	B	86	A
2	B	87	C
2	B	88	G
2	B	95	U
2	B	106	G
2	B	115	C

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Mol	Chain	Res	Type
31	a	7	G
31	a	8	G
31	a	9	A
31	a	10	G
31	a	11	A
31	a	14	U
31	a	15	U
31	a	16	G
31	a	24	C
31	a	27	A
31	a	30	A
31	a	31	U
31	a	33	A
31	a	40	G
31	a	42	G
31	a	43	G
31	a	45	G
31	a	47	G
31	a	48	C
31	a	49	C
31	a	50	U
31	a	51	A
31	a	52	A
31	a	59	C
31	a	60	A
31	a	62	G
31	a	63	U
31	a	66	A
31	a	67	G
31	a	68	C
31	a	69	G
31	a	70	A
31	a	71	A
31	a	76	C
31	a	77	G
31	a	81	A
31	a	82	G
31	a	83	C
31	a	84	U
31	a	87	C
31	a	88	U
31	a	92	C

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Mol	Chain	Res	Type
31	a	93	U
31	a	94	G
31	a	99	U
31	a	100	A
31	a	106	G
31	a	107	G
31	a	115	A
31	a	120	C
31	a	121	A
31	a	122	C
31	a	129	A
31	a	130	A
31	a	131	C
31	a	132	C
31	a	133	U
31	a	140	A
31	a	142	G
31	a	146	G
31	a	149	A
31	a	151	A
31	a	153	C
31	a	158	G
31	a	159	G
31	a	161	A
31	a	162	A
31	a	163	C
31	a	165	G
31	a	170	U
31	a	171	A
31	a	173	U
31	a	177	G
31	a	183	U
31	a	184	A
31	a	186	U
31	a	187	U
31	a	189	G
31	a	190	A
31	a	191	A
31	a	194	G
31	a	195	C
31	a	197	U
31	a	198	G

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Mol	Chain	Res	Type
31	a	199	G
31	a	200	U
31	a	201	U
31	a	202	C
31	a	203	A
31	a	204	A
31	a	206	A
31	a	207	G
31	a	208	U
31	a	209	G
31	a	210	A
31	a	211	A
31	a	218	U
31	a	219	C
31	a	220	U
31	a	221	U
31	a	222	G
31	a	224	U
31	a	227	C
31	a	228	A
31	a	230	U
31	a	231	U
31	a	232	A
31	a	233	U
31	a	234	A
31	a	243	C
31	a	244	G
31	a	245	C
31	a	247	C
31	a	250	C
31	a	252	U
31	a	253	U
31	a	255	G
31	a	256	C
31	a	259	G
31	a	261	U
31	a	262	G
31	a	264	U
31	a	265	A
31	a	267	G
31	a	268	G
31	a	269	U

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Mol	Chain	Res	Type
31	a	271	A
31	a	272	C
31	a	274	G
31	a	275	C
31	a	278	A
31	a	282	A
31	a	283	G
31	a	286	A
31	a	289	G
31	a	297	G
31	a	305	G
31	a	306	A
31	a	307	G
31	a	309	G
31	a	311	G
31	a	312	U
31	a	314	A
31	a	315	U
31	a	316	C
31	a	324	C
31	a	329	A
31	a	336	C
31	a	337	A
31	a	338	C
31	a	339	G
31	a	352	A
31	a	354	G
31	a	355	G
31	a	356	G
31	a	358	G
31	a	360	C
31	a	363	C
31	a	371	A
31	a	372	A
31	a	375	U
31	a	376	U
31	a	377	C
31	a	380	C
31	a	381	A
31	a	384	G
31	a	392	G
31	a	395	U

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Mol	Chain	Res	Type
31	a	396	G
31	a	397	A
31	a	398	C
31	a	403	C
31	a	405	A
31	a	406	C
31	a	412	G
31	a	413	U
31	a	414	G
31	a	416	G
31	a	417	U
31	a	419	A
31	a	420	U
31	a	421	G
31	a	422	A
31	a	423	A
31	a	425	G
31	a	426	U
31	a	427	C
31	a	429	U
31	a	430	C
31	a	431	G
31	a	432	G
31	a	433	A
31	a	434	U
31	a	435	C
31	a	436	G
31	a	437	U
31	a	438	A
31	a	440	A
31	a	441	A
31	a	442	C
31	a	444	C
31	a	446	G
31	a	447	U
31	a	448	U
31	a	450	U
31	a	451	U
31	a	452	A
31	a	454	G
31	a	455	G
31	a	456	A

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Mol	Chain	Res	Type
31	a	459	A
31	a	460	A
31	a	461	C
31	a	463	U
31	a	467	U
31	a	468	G
31	a	472	G
31	a	480	G
31	a	482	A
31	a	483	C
31	a	484	A
31	a	485	U
31	a	486	C
31	a	487	U
31	a	488	U
31	a	492	G
31	a	499	A
31	a	500	A
31	a	503	A
31	a	504	G
31	a	505	A
31	a	506	A
31	a	507	A
31	a	508	G
31	a	513	G
31	a	514	G
31	a	516	U
31	a	517	A
31	a	519	C
31	a	522	C
31	a	525	G
31	a	526	C
31	a	529	G
31	a	532	G
31	a	539	U
31	a	541	A
31	a	542	U
31	a	543	A
31	a	544	C
31	a	548	G
31	a	549	G
31	a	551	G

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Mol	Chain	Res	Type
31	a	552	G
31	a	554	A
31	a	555	A
31	a	557	C
31	a	563	C
31	a	569	U
31	a	570	U
31	a	571	A
31	a	576	G
31	a	581	A
31	a	583	G
31	a	584	C
31	a	585	G
31	a	587	G
31	a	590	U
31	a	596	G
31	a	603	A
31	a	604	A
31	a	605	G
31	a	607	C
31	a	608	U
31	a	610	A
31	a	611	U
31	a	615	A
31	a	616	A
31	a	617	A
31	a	619	C
31	a	626	C
31	a	627	U
31	a	632	C
31	a	635	G
31	a	636	G
31	a	638	G
31	a	639	G
31	a	640	G
31	a	641	U
31	a	642	C
31	a	645	U
31	a	647	G
31	a	648	A
31	a	649	A
31	a	661	U

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Mol	Chain	Res	Type
31	a	662	G
31	a	666	G
31	a	673	A
31	a	675	G
31	a	678	A
31	a	679	G
31	a	680	U
31	a	681	G
31	a	691	G
31	a	692	U
31	a	694	U
31	a	695	A
31	a	696	G
31	a	697	C
31	a	698	G
31	a	702	A
31	a	703	A
31	a	708	G
31	a	709	C
31	a	710	A
31	a	711	G
31	a	712	A
31	a	713	G
31	a	715	U
31	a	718	G
31	a	719	G
31	a	724	A
31	a	726	A
31	a	727	C
31	a	728	C
31	a	731	U
31	a	732	G
31	a	736	A
31	a	739	G
31	a	742	A
31	a	743	C
31	a	744	U
31	a	747	C
31	a	749	G
31	a	750	G
31	a	753	U
31	a	756	A

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Mol	Chain	Res	Type
31	a	760	G
31	a	761	A
31	a	762	C
31	a	763	G
31	a	766	G
31	a	767	A
31	a	771	G
31	a	774	A
31	a	775	A
31	a	779	G
31	a	781	G
31	a	782	G
31	a	783	G
31	a	784	G
31	a	785	A
31	a	794	G
31	a	795	A
31	a	796	U
31	a	799	G
31	a	800	A
31	a	801	U
31	a	812	U
31	a	813	C
31	a	814	C
31	a	817	G
31	a	818	C
31	a	820	G
31	a	821	U
31	a	823	A
31	a	824	A
31	a	825	C
31	a	826	G
31	a	827	A
31	a	828	U
31	a	829	G
31	a	833	G
31	a	834	C
31	a	835	U
31	a	836	A
31	a	840	G
31	a	842	U
31	a	845	G

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Mol	Chain	Res	Type
31	a	847	G
31	a	849	U
31	a	850	U
31	a	852	C
31	a	853	C
31	a	854	G
31	a	855	C
31	a	860	U
31	a	862	G
31	a	867	G
31	a	875	C
31	a	876	G
31	a	877	C
31	a	878	A
31	a	879	U
31	a	880	U
31	a	881	A
31	a	882	A
31	a	894	G
31	a	898	A
31	a	900	U
31	a	908	C
31	a	911	G
31	a	921	C
31	a	923	A
31	a	927	A
31	a	935	G
31	a	943	C
31	a	944	A
31	a	945	C
31	a	947	A
31	a	949	C
31	a	953	G
31	a	954	G
31	a	955	A
31	a	956	G
31	a	959	U
31	a	961	U
31	a	967	A
31	a	969	U
31	a	970	U
31	a	971	C

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Mol	Chain	Res	Type
31	a	973	A
31	a	975	G
31	a	978	A
31	a	980	G
31	a	981	C
31	a	985	G
31	a	986	A
31	a	987	A
31	a	991	U
31	a	992	A
31	a	996	A
31	a	998	U
31	a	1001	U
31	a	1002	G
31	a	1005	A
31	a	1006	U
31	a	1007	C
31	a	1011	U
31	a	1012	G
31	a	1013	A
31	a	1015	A
31	a	1016	A
31	a	1017	C
31	a	1019	C
31	a	1023	A
31	a	1024	G
31	a	1025	A
31	a	1026	U
31	a	1027	A
31	a	1029	A
31	a	1031	C
31	a	1035	C
31	a	1036	C
31	a	1038	C
31	a	1040	U
31	a	1042	G
31	a	1043	G
31	a	1044	G
31	a	1046	G
31	a	1048	C
31	a	1051	A
31	a	1052	G

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Mol	Chain	Res	Type
31	a	1055	A
31	a	1056	C
31	a	1059	G
31	a	1062	G
31	a	1064	G
31	a	1065	C
31	a	1066	A
31	a	1069	G
31	a	1071	U
31	a	1075	G
31	a	1076	U
31	a	1077	C
31	a	1081	U
31	a	1086	U
31	a	1094	U
31	a	1095	G
31	a	1096	U
31	a	1097	U
31	a	1098	G
31	a	1101	U
31	a	1103	A
31	a	1104	A
31	a	1105	G
31	a	1109	C
31	a	1111	C
31	a	1112	A
31	a	1120	C
31	a	1121	A
31	a	1122	A
31	a	1123	C
31	a	1124	C
31	a	1126	U
31	a	1129	A
31	a	1130	G
31	a	1131	C
31	a	1135	G
31	a	1136	U
31	a	1137	U
31	a	1138	G
31	a	1139	C
31	a	1141	A
31	a	1142	U

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Mol	Chain	Res	Type
31	a	1143	C
31	a	1144	A
31	a	1145	U
31	a	1146	U
31	a	1147	A
31	a	1148	A
31	a	1149	G
31	a	1150	U
31	a	1151	U
31	a	1154	G
31	a	1156	A
31	a	1157	C
31	a	1159	C
31	a	1161	A
31	a	1162	A
31	a	1163	G
31	a	1165	U
31	a	1167	A
31	a	1168	C
31	a	1169	U
31	a	1170	G
31	a	1171	C
31	a	1173	G
31	a	1174	G
31	a	1175	U
31	a	1177	A
31	a	1178	C
31	a	1179	A
31	a	1180	A
31	a	1181	A
31	a	1182	C
31	a	1185	G
31	a	1189	A
31	a	1190	A
31	a	1191	G
31	a	1193	U
31	a	1198	A
31	a	1200	G
31	a	1202	C
31	a	1203	G
31	a	1206	A
31	a	1207	A

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Mol	Chain	Res	Type
31	a	1208	A
31	a	1209	U
31	a	1210	C
31	a	1211	A
31	a	1215	U
31	a	1216	G
31	a	1219	C
31	a	1221	U
31	a	1222	U
31	a	1223	A
31	a	1224	U
31	a	1226	A
31	a	1228	U
31	a	1230	G
31	a	1231	G
31	a	1234	U
31	a	1235	A
31	a	1236	C
31	a	1237	A
31	a	1238	C
31	a	1243	G
31	a	1246	A
31	a	1247	C
31	a	1248	A
31	a	1249	A
31	a	1250	U
31	a	1251	G
31	a	1252	G
31	a	1253	A
31	a	1255	A
31	a	1256	A
31	a	1257	U
31	a	1260	A
31	a	1261	A
31	a	1266	C
31	a	1267	A
31	a	1268	G
31	a	1270	G
31	a	1273	A
31	a	1274	C
31	a	1275	C
31	a	1278	G

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Mol	Chain	Res	Type
31	a	1279	A
31	a	1282	U
31	a	1283	C
31	a	1285	A
31	a	1286	G
31	a	1287	C
31	a	1288	A
31	a	1289	A
31	a	1290	A
31	a	1291	U
31	a	1292	C
31	a	1294	C
31	a	1295	A
31	a	1296	U
31	a	1297	A
31	a	1298	A
31	a	1305	U
31	a	1306	C
31	a	1307	U
31	a	1308	C
31	a	1309	A
31	a	1310	G
31	a	1311	U
31	a	1313	C
31	a	1315	G
31	a	1318	U
31	a	1319	G
31	a	1322	G
31	a	1323	U
31	a	1324	C
31	a	1327	C
31	a	1328	A
31	a	1329	A
31	a	1330	C
31	a	1332	C
31	a	1333	G
31	a	1335	C
31	a	1336	U
31	a	1337	A
31	a	1338	C
31	a	1339	A
31	a	1341	G

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Mol	Chain	Res	Type
31	a	1344	G
31	a	1345	C
31	a	1347	G
31	a	1348	G
31	a	1356	A
31	a	1357	G
31	a	1363	G
31	a	1365	A
31	a	1367	A
31	a	1368	U
31	a	1369	C
31	a	1371	G
31	a	1373	A
31	a	1374	U
31	a	1378	A
31	a	1382	U
31	a	1383	G
31	a	1387	A
31	a	1389	G
31	a	1391	U
31	a	1392	C
31	a	1397	G
31	a	1406	A
31	a	1407	C
31	a	1408	A
31	a	1409	C
31	a	1410	C
31	a	1411	G
31	a	1421	C
31	a	1426	A
31	a	1428	A
31	a	1429	G
31	a	1435	A
31	a	1439	C
31	a	1443	A
31	a	1445	G
31	a	1446	C
31	a	1448	G
31	a	1449	G
31	a	1450	U
31	a	1451	G
31	a	1454	G

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Mol	Chain	Res	Type
31	a	1456	A
31	a	1458	C
31	a	1462	U
31	a	1463	U
31	a	1464	A
31	a	1465	G
31	a	1466	G
31	a	1467	A
31	a	1468	G
31	a	1469	C
31	a	1472	G
31	a	1473	C
31	a	1474	C
31	a	1475	G
31	a	1476	U
31	a	1482	G
31	a	1483	U
31	a	1484	G
31	a	1486	G
31	a	1487	A
31	a	1495	U
31	a	1496	U
31	a	1497	G
31	a	1504	A
31	a	1505	G
31	a	1510	A
31	a	1514	A
31	a	1515	G
31	a	1516	G
31	a	1518	A
31	a	1519	G
31	a	1520	C
31	a	1524	A
31	a	1534	G
31	a	1536	G
31	a	1540	G
31	a	1541	G
31	a	1543	U

All (258) RNA pucker outliers are listed below:

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Mol	Chain	Res	Type

Mol	Chain	Res	Type
1	A	33	U
1	A	45	G
1	A	63	U
1	A	69	C
1	A	90	A
1	A	99	U
1	A	162	A
1	A	179	A
1	A	181	G
1	A	201	C
1	A	202	A
1	A	218	G
1	A	227	G
1	A	228	A
1	A	234	C
1	A	235	G
1	A	237	U
1	A	282	A
1	A	291	G
1	A	299	U
1	A	325	A
1	A	327	G
1	A	333	C
1	A	338	G
1	A	345	C
1	A	350	G
1	A	354	A
1	A	361	U
1	A	363	A
1	A	364	A
1	A	365	A
1	A	374	U
1	A	375	A
1	A	394	U
1	A	403	U
1	A	409	G
1	A	419	U
1	A	420	A
1	A	422	G
1	A	451	U
1	A	467	U

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Mol	Chain	Res	Type
1	A	469	A
1	A	470	G
1	A	472	C
1	A	474	A
1	A	479	C
1	A	480	U
1	A	483	C
1	A	484	U
1	A	487	U
1	A	489	A
1	A	490	C
1	A	493	A
1	A	494	U
1	A	496	G
1	A	500	A
1	A	513	G
1	A	519	G
1	A	520	G
1	A	522	G
1	A	523	A
1	A	530	C
1	A	531	C
1	A	544	U
1	A	547	A
1	A	553	A
1	A	555	C
1	A	557	G
1	A	558	A
1	A	572	C
1	A	576	U
1	A	582	G
1	A	588	G
1	A	592	A
1	A	593	U
1	A	595	G
1	A	599	A
1	A	600	U
1	A	604	G
1	A	614	U
1	A	615	A
1	A	616	G
1	A	617	A

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Mol	Chain	Res	Type
1	A	621	A
1	A	627	C
1	A	634	C
1	A	640	G
1	A	644	C
1	A	648	G
1	A	649	U
1	A	650	U
1	A	667	G
1	A	711	G
1	A	713	A
1	A	809	A
1	A	835	U
1	A	857	C
1	A	858	U
1	A	860	U
1	A	863	G
1	A	865	A
1	A	867	U
1	A	872	U
1	A	875	G
1	A	893	G
1	A	896	U
1	A	904	G
1	A	958	U
1	A	987	U
1	A	988	C
1	A	990	G
1	A	995	U
1	A	1001	A
1	A	1004	A
1	A	1005	G
1	A	1013	U
1	A	1018	A
1	A	1019	A
1	A	1023	A
1	A	1025	A
1	A	1027	A
1	A	1028	G
1	A	1032	A
1	A	1033	G
1	A	1034	A

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Mol	Chain	Res	Type
1	A	1035	C
1	A	1039	C
1	A	1040	A
1	A	1043	U
1	A	1044	A
1	A	1050	C
1	A	1056	U
1	A	1057	A
1	A	1064	A
1	A	1075	G
1	A	1082	C
1	A	1162	C
1	A	1175	G
1	A	1181	G
1	A	1184	C
1	A	1185	U
1	A	1187	A
1	A	1188	A
1	A	1190	A
1	A	1193	U
1	A	1199	A
1	A	1224	U
1	A	1236	G
1	A	1240	U
1	A	1241	A
1	A	1247	G
1	A	1248	U
1	A	1249	U
1	A	1251	A
1	A	1263	A
1	A	1267	A
1	A	1273	G
1	A	1274	G
1	A	1276	G
1	A	1286	G
1	A	1288	G
1	A	1289	A
1	A	1290	G
1	A	1291	A
1	A	1298	G
1	A	1299	U
1	A	1302	G

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Mol	Chain	Res	Type
1	A	1303	A
1	A	1357	G
1	A	1364	C
1	A	1365	G
1	A	1366	U
1	A	1369	G
1	A	1372	C
1	A	1374	G
1	A	1651	C
1	A	1692	C
1	A	1731	G
1	A	1756	U
1	A	1761	G
1	A	1789	A
1	A	2023	C
1	A	2038	U
1	A	2043	U
1	A	2044	C
1	A	2045	A
1	A	2052	C
1	A	2053	U
1	A	2057	A
1	A	2061	U
1	A	2064	A
1	A	2082	C
1	A	2084	G
1	A	2085	A
1	A	2090	C
1	A	2093	C
1	A	2094	G
1	A	2239	A
1	A	2261	G
1	A	2275	C
1	A	2276	U
1	A	2295	A
1	A	2309	G
1	A	2313	A
1	A	2378	G
1	A	2392	G
1	A	2397	G
1	A	2419	A
1	A	2442	G

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Mol	Chain	Res	Type
1	A	2452	A
1	A	2453	A
1	A	2455	G
1	A	2459	A
1	A	2461	A
1	A	2477	A
1	A	2478	A
1	A	2480	A
1	A	2481	G
1	A	2486	A
1	A	2516	G
1	A	2517	G
1	A	2518	U
1	A	2523	C
1	A	2525	C
1	A	2527	U
1	A	2543	G
1	A	2544	C
1	A	2546	U
1	A	2550	G
1	A	2556	G
1	A	2569	A
1	A	2578	C
1	A	2581	U
1	A	2595	C
1	A	2644	C
1	A	2652	G
1	A	2655	U
1	A	2664	U
1	A	2665	G
1	A	2667	G
1	A	2668	A
1	A	2672	G
1	A	2703	C
1	A	2760	A
1	A	2797	C
1	A	2803	A
1	A	2805	A
1	A	2806	U
1	A	2808	A
1	A	2830	A
1	A	2840	A

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Mol	Chain	Res	Type
1	A	2854	A
1	A	2856	U
1	A	2869	G
1	A	2878	U
1	A	2901	U
2	B	6	U
2	B	85	U

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

There are no monosaccharides in this entry.

5.6 Ligand geometry

1 ligand is modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
53	ERY	A	3001	-	53,53,53	2.19	11 (20%)	82,82,82	4.95	38 (46%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
53	ERY	A	3001	-	3/3/21/21	30/72/107/107	0/3/3/3

All (11) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
53	A	3001	ERY	O2-C1	10.04	1.57	1.34
53	A	3001	ERY	O10-C6	-4.84	1.36	1.44
53	A	3001	ERY	O2-C13	-4.27	1.39	1.46
53	A	3001	ERY	C19-C16	3.73	1.60	1.52
53	A	3001	ERY	C10-C11	-3.66	1.49	1.54
53	A	3001	ERY	O4-C14	3.54	1.51	1.42
53	A	3001	ERY	C23-C24	-2.90	1.47	1.53
53	A	3001	ERY	C4-C5	2.73	1.61	1.55
53	A	3001	ERY	O13-C12	-2.41	1.40	1.44
53	A	3001	ERY	O9-C22	2.38	1.47	1.41
53	A	3001	ERY	C15-C16	-2.14	1.48	1.52

All (38) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	A	3001	ERY	O5-C16-C15	-18.50	83.30	112.96
53	A	3001	ERY	O13-C12-C13	-14.57	83.86	107.28
53	A	3001	ERY	O10-C6-C32	-14.39	75.32	108.47
53	A	3001	ERY	O13-C12-C35	-12.64	81.67	107.78
53	A	3001	ERY	O13-C12-C11	-12.44	83.82	108.90
53	A	3001	ERY	O10-C6-C7	-10.38	81.63	108.40
53	A	3001	ERY	O5-C16-C17	-9.36	89.94	103.81
53	A	3001	ERY	O5-C16-C19	-9.16	95.65	110.92
53	A	3001	ERY	C15-C16-C17	8.95	123.72	107.67
53	A	3001	ERY	C20-O5-C16	6.46	131.02	117.55
53	A	3001	ERY	C31-C4-C3	-6.32	100.06	111.40
53	A	3001	ERY	C13-O2-C1	-6.24	107.09	118.18
53	A	3001	ERY	C19-C16-C15	6.08	121.35	110.49
53	A	3001	ERY	O10-C6-C5	-6.06	96.10	107.59
53	A	3001	ERY	O3-C3-C4	5.62	115.00	108.22
53	A	3001	ERY	C32-C6-C7	5.58	120.52	111.09
53	A	3001	ERY	C35-C12-C11	5.08	121.96	113.05
53	A	3001	ERY	C32-C6-C5	4.98	118.87	110.12
53	A	3001	ERY	C14-O3-C3	-4.83	104.88	114.66
53	A	3001	ERY	C3-C4-C5	4.61	121.12	111.19
53	A	3001	ERY	C13-C12-C11	4.53	117.23	108.28
53	A	3001	ERY	C27-C26-C25	-4.15	106.88	113.40
53	A	3001	ERY	C34-C10-C11	-4.01	109.38	114.38
53	A	3001	ERY	C35-C12-C13	3.71	116.54	111.31
53	A	3001	ERY	C6-C5-C4	3.69	119.27	114.05
53	A	3001	ERY	C7-C6-C5	3.61	117.54	110.48
53	A	3001	ERY	C3-C2-C1	-3.53	102.81	110.01

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	A	3001	ERY	C22-C23-C24	-3.51	103.44	109.19
53	A	3001	ERY	C16-C15-C14	-2.75	110.31	115.07
53	A	3001	ERY	O4-C18-C17	2.55	114.59	110.03
53	A	3001	ERY	C22-O7-C5	2.49	120.58	116.25
53	A	3001	ERY	O12-C11-C10	-2.49	106.99	110.71
53	A	3001	ERY	C11-C10-C9	-2.35	105.76	109.57
53	A	3001	ERY	O12-C11-C12	2.29	110.96	106.68
53	A	3001	ERY	O6-C17-C16	2.13	115.11	111.12
53	A	3001	ERY	C6-C7-C8	-2.10	110.89	115.38
53	A	3001	ERY	C22-O9-C26	2.02	116.11	112.91
53	A	3001	ERY	C21-C18-C17	-2.01	109.13	112.57

All (3) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
53	A	3001	ERY	C6
53	A	3001	ERY	C12
53	A	3001	ERY	C14

All (30) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
53	A	3001	ERY	C10-C11-C12-C13
53	A	3001	ERY	C10-C11-C12-C35
53	A	3001	ERY	C10-C11-C12-O13
53	A	3001	ERY	O12-C11-C12-C13
53	A	3001	ERY	O12-C11-C12-C35
53	A	3001	ERY	C35-C12-C13-O2
53	A	3001	ERY	C35-C12-C13-C36
53	A	3001	ERY	O13-C12-C13-O2
53	A	3001	ERY	O13-C12-C13-C36
53	A	3001	ERY	C4-C5-C6-C7
53	A	3001	ERY	C4-C5-C6-C32
53	A	3001	ERY	O7-C5-C6-C7
53	A	3001	ERY	O7-C5-C6-C32
53	A	3001	ERY	C32-C6-C7-C8
53	A	3001	ERY	O10-C6-C7-C8
53	A	3001	ERY	C6-C7-C8-C9
53	A	3001	ERY	C6-C7-C8-C33
53	A	3001	ERY	O9-C22-O7-C5
53	A	3001	ERY	C2-C1-O2-C13
53	A	3001	ERY	C7-C8-C9-C10

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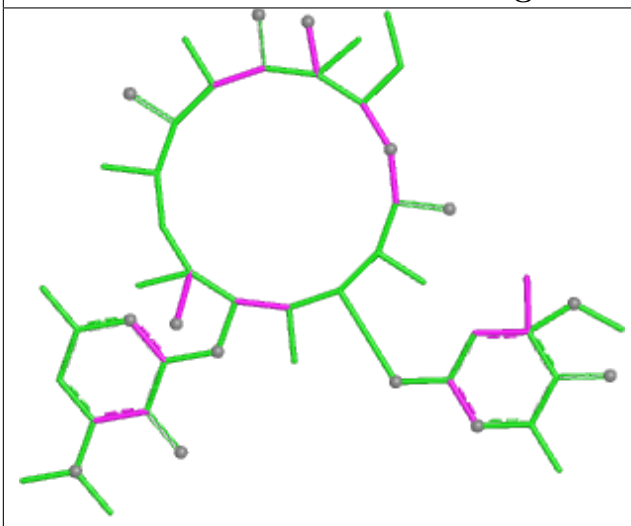
Mol	Chain	Res	Type	Atoms
53	A	3001	ERY	C15-C16-O5-C20
53	A	3001	ERY	C19-C16-O5-C20
53	A	3001	ERY	O1-C1-O2-C13
53	A	3001	ERY	O2-C13-C36-C37
53	A	3001	ERY	C17-C16-O5-C20
53	A	3001	ERY	C12-C13-C36-C37
53	A	3001	ERY	C11-C12-C13-O2
53	A	3001	ERY	C6-C5-O7-C22
53	A	3001	ERY	C30-C2-C3-C4
53	A	3001	ERY	C7-C8-C9-O11

There are no ring outliers.

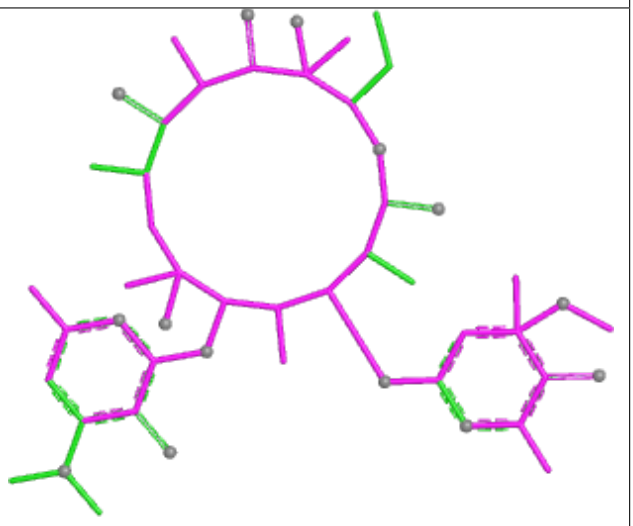
No monomer is involved in short contacts.

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

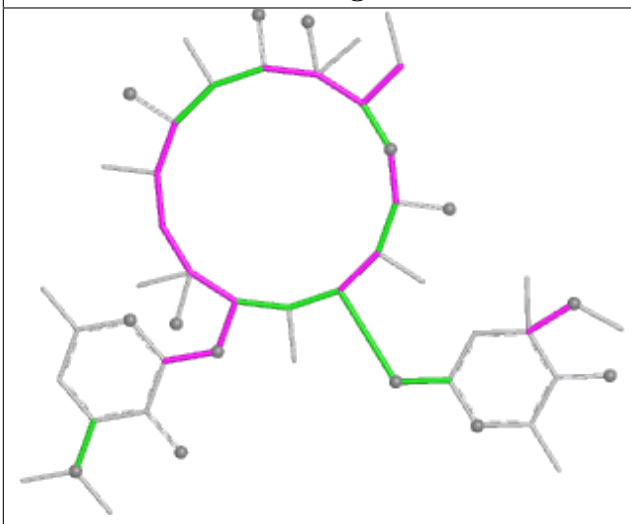
Ligand ERY A 3001



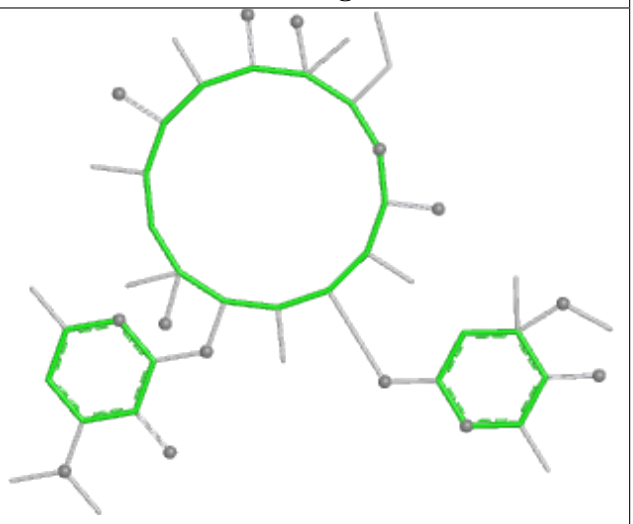
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	A	7
52	v	1
31	a	1
43	m	1

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Mol	Chain	Number of breaks
8	H	1
24	X	1
11	K	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	v	106:GLN	C	131:ILE	N	27.31
1	A	2207:U	O3'	2208:A	P	12.57
1	A	1939:A	O3'	1944:U	P	12.49
1	A	929:C	O3'	937:G	P	11.52
1	a	465:U	O3'	466:G	P	9.63
1	A	1096:C	O3'	1097:U	P	6.53
1	A	2217:G	O3'	2218:G	P	3.73
1	A	1153:C	O3'	1154:G	P	3.41
1	A	1448:U	O3'	1449:A	P	3.35
1	m	93:ARG	C	94:GLY	N	3.23
1	H	109:MET	C	110:LEU	N	1.18
1	X	14:GLY	C	15:ARG	N	1.15
1	K	13:HIS	C	14:ARG	N	1.10

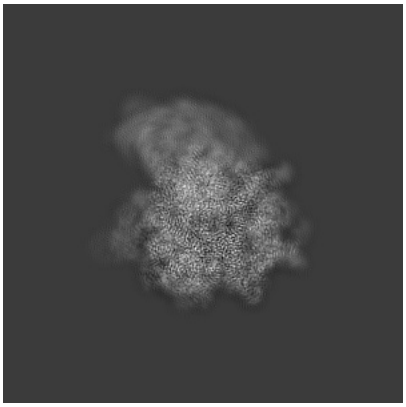
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-10076. These allow visual inspection of the internal detail of the map and identification of artifacts.

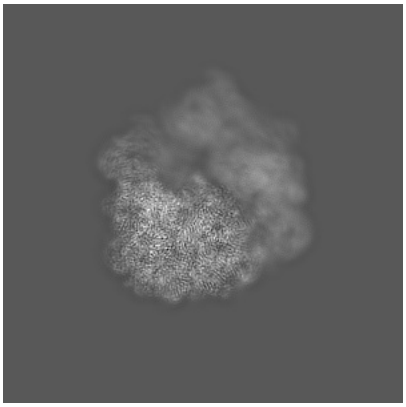
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

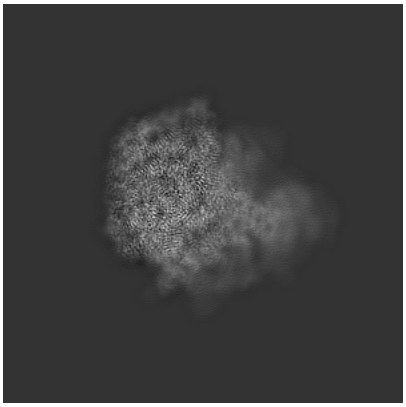
6.1.1 Primary map



X



Y

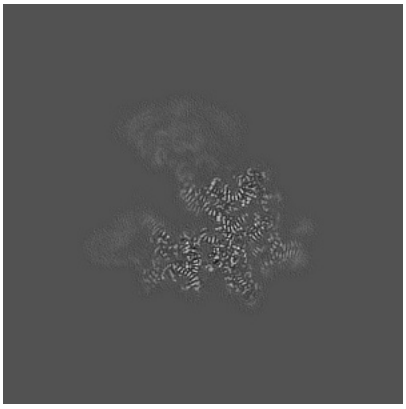


Z

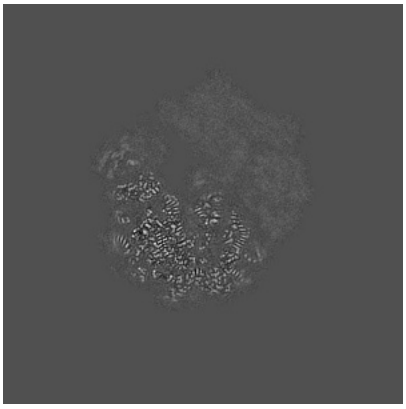
The images above show the map projected in three orthogonal directions.

6.2 Central slices

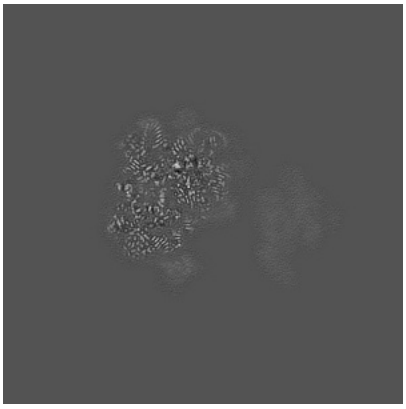
6.2.1 Primary map



X Index: 200



Y Index: 200

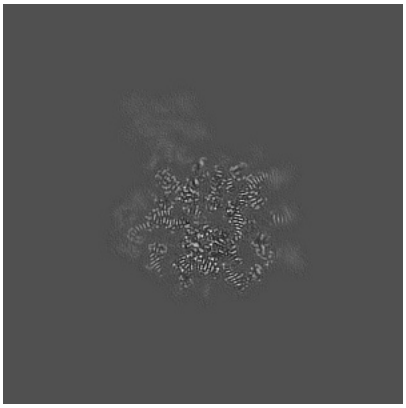


Z Index: 200

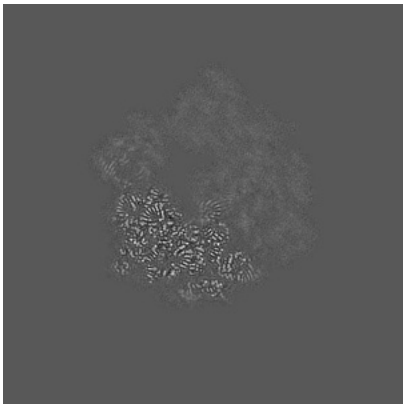
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

6.3.1 Primary map



X Index: 171



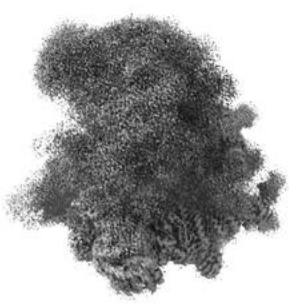
Y Index: 185

Z Index: 147

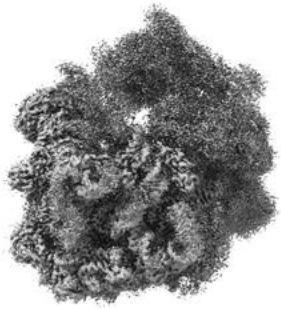
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal surface views (i)

6.4.1 Primary map



X



Y

Z

The images above show the 3D surface view of the map at the recommended contour level 0.015. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

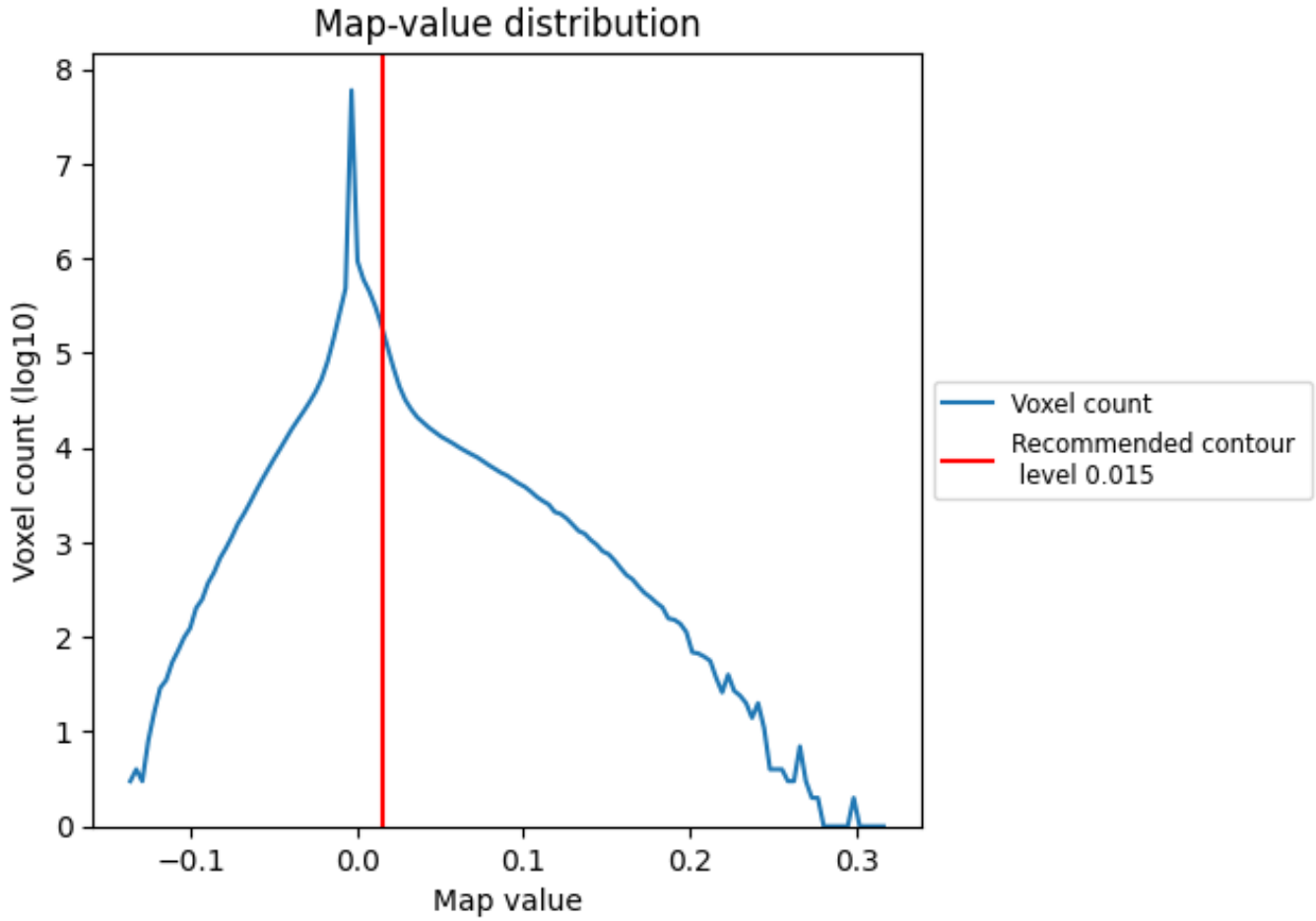
6.5 Mask visualisation (i)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis

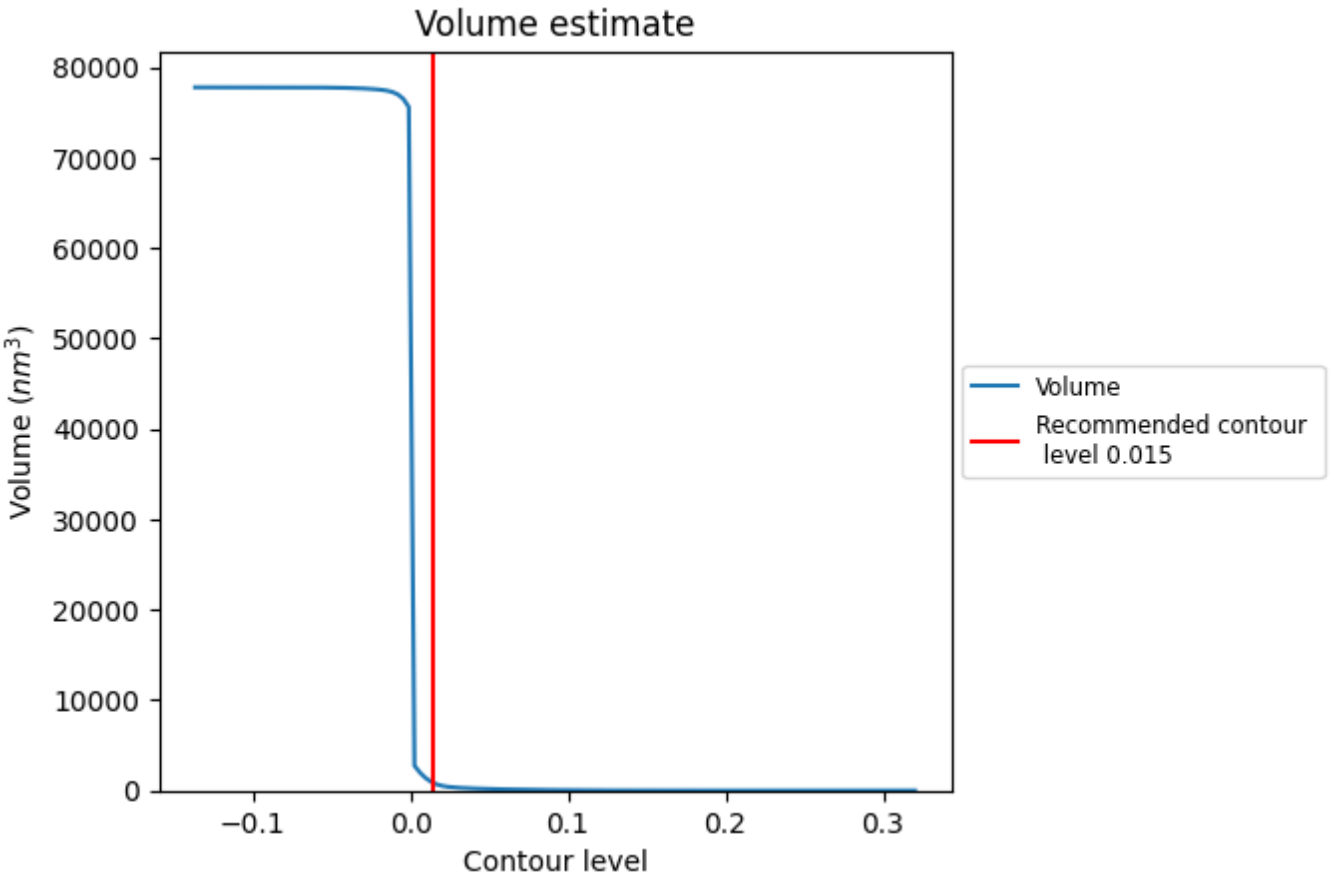
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

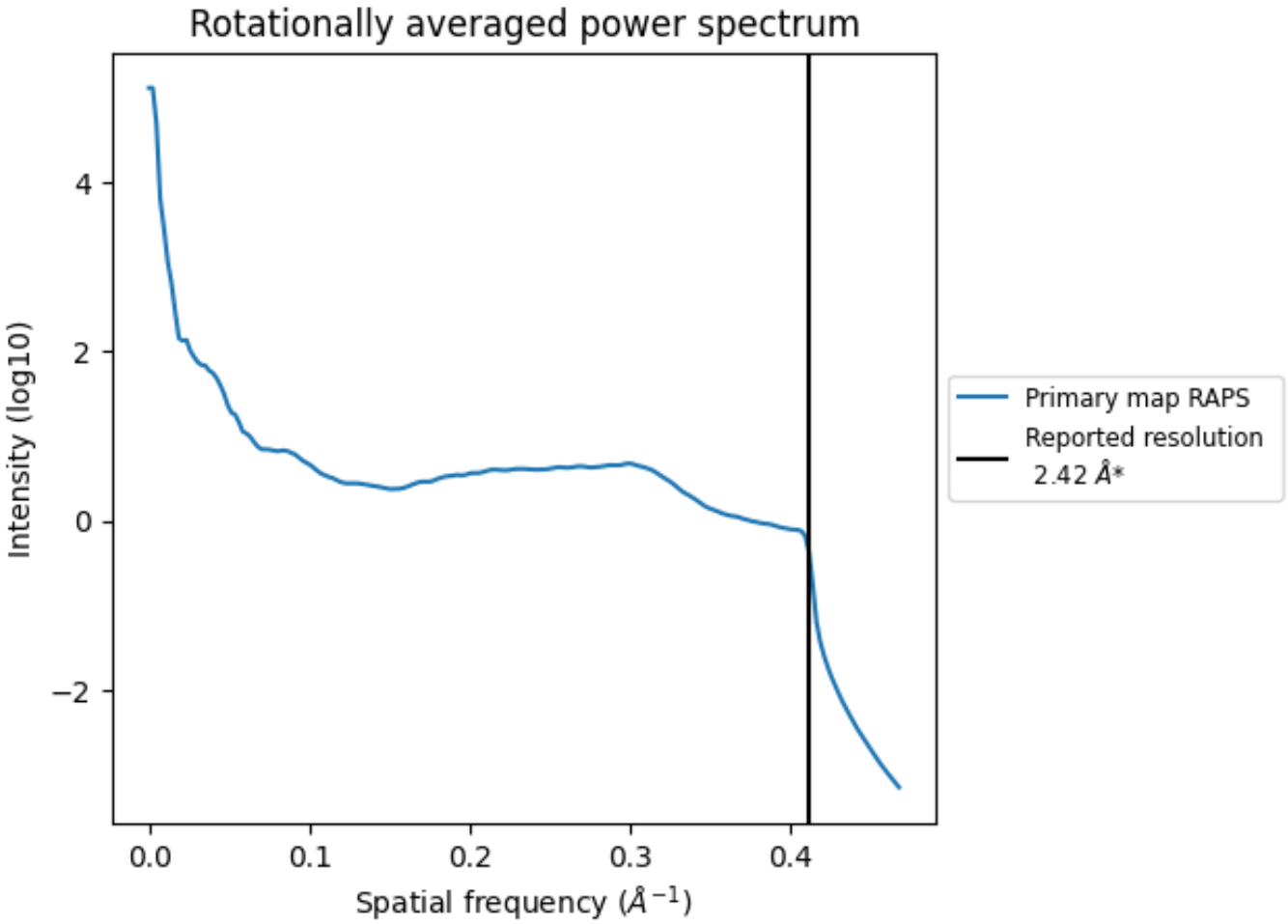
7.2 Volume estimate



The volume at the recommended contour level is 827 nm^3; this corresponds to an approximate mass of 747 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum (i)



*Reported resolution corresponds to spatial frequency of 0.412 $Å^{-1}$

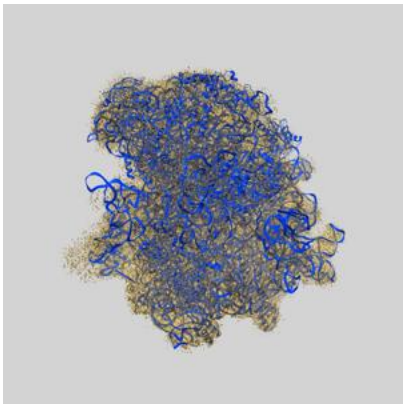
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

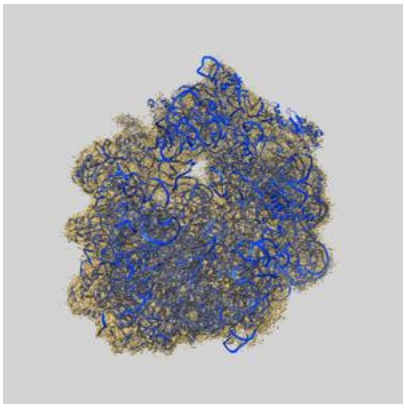
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-10076 and PDB model 6S0X. Per-residue inclusion information can be found in section 3 on page 14.

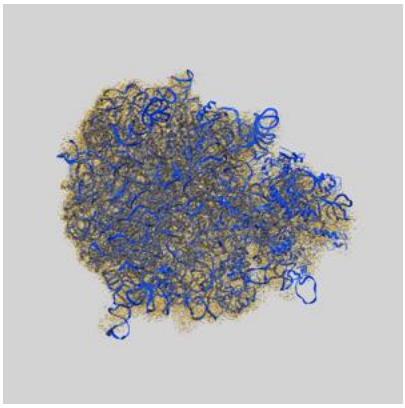
9.1 Map-model overlay



X



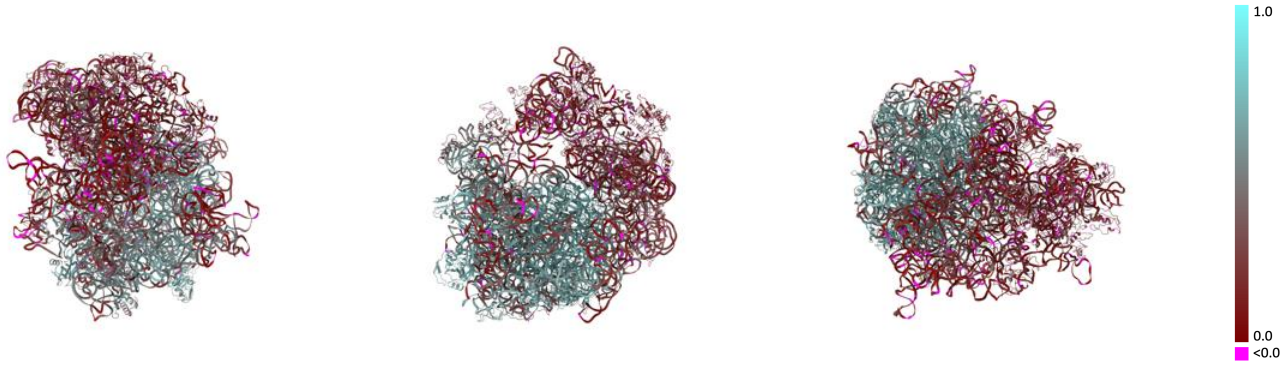
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.015 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

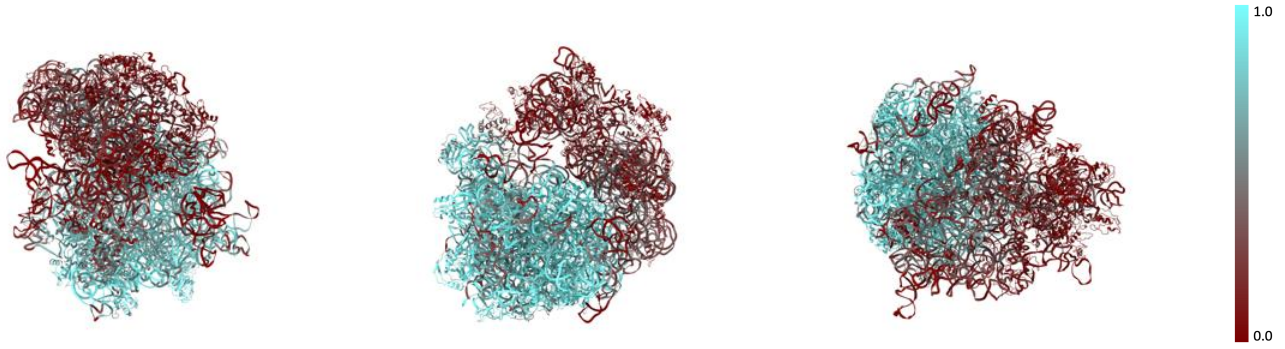
9.2 Q-score mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

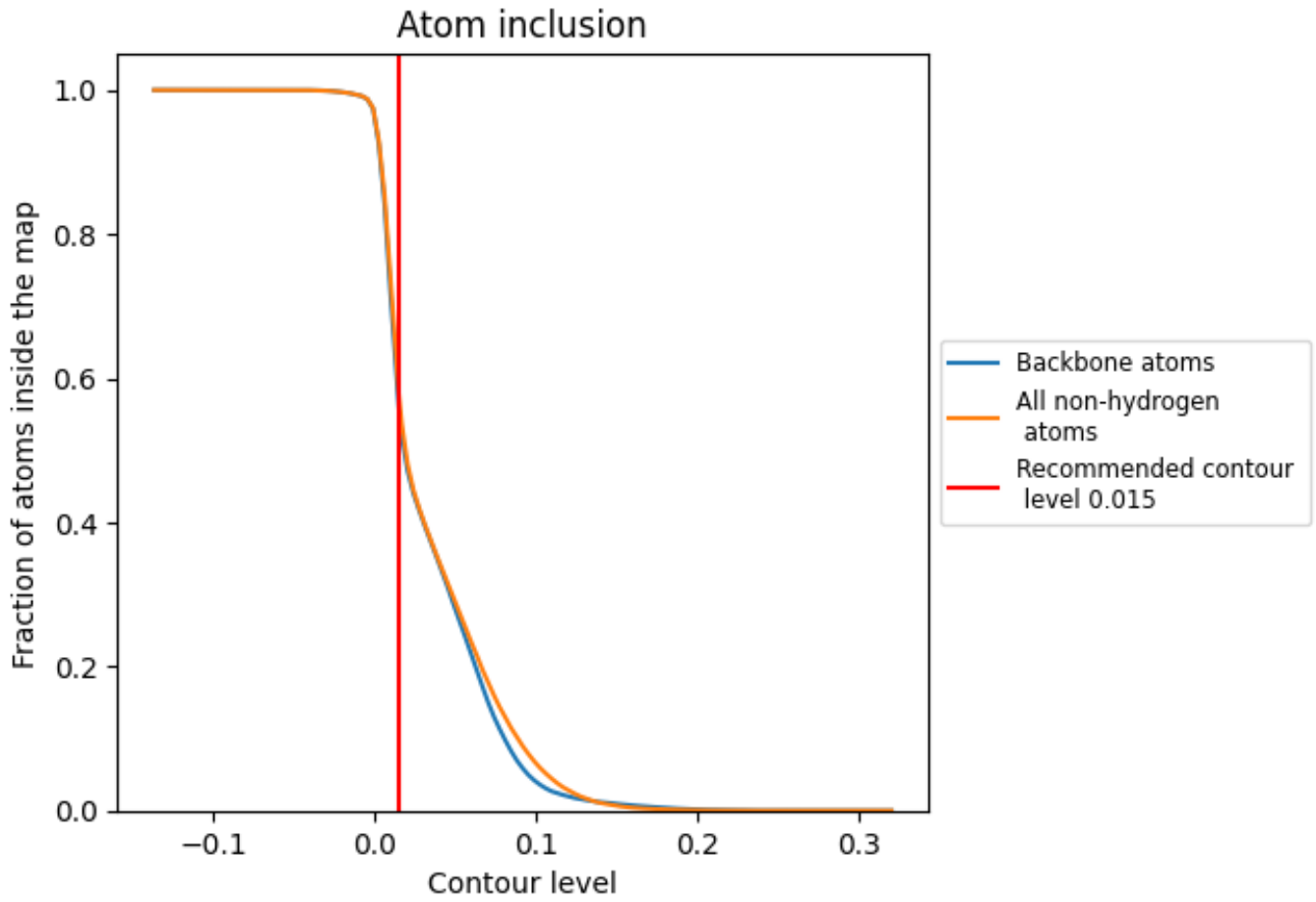
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.015).

9.4 Atom inclusion (i)



At the recommended contour level, 56% of all backbone atoms, 58% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.015) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.5781	0.3950
1	0.6107	0.5660
2	0.9769	0.7030
3	0.9482	0.6780
4	0.8858	0.6120
A	0.7699	0.4870
B	0.8920	0.5200
C	0.9592	0.6800
D	0.9601	0.6750
E	0.9364	0.6600
F	0.3568	0.2880
G	0.5074	0.4070
H	0.9536	0.6750
I	0.9508	0.6720
J	0.9398	0.6480
K	0.9532	0.6590
L	0.9499	0.6770
M	0.7991	0.5230
N	0.9406	0.6600
O	0.9725	0.6950
P	0.9550	0.6720
Q	0.9108	0.6470
R	0.9099	0.6290
S	0.8165	0.5610
T	0.8420	0.5900
U	0.9525	0.6660
V	0.8877	0.6150
W	0.8343	0.5500
X	0.9456	0.6750
Y	0.1549	0.2060
Z	0.7233	0.5340
a	0.2676	0.1630
b	0.0628	0.2110
c	0.0758	0.2020
d	0.1301	0.2350

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Chain	Atom inclusion	Q-score
e	0.0972	0.2040
f	0.0782	0.2010
g	0.0389	0.1850
h	0.1505	0.2220
i	0.0535	0.1810
j	0.0982	0.2040
k	0.1205	0.2060
l	0.1701	0.2810
m	0.0919	0.1990
n	0.1245	0.2100
o	0.1207	0.2160
p	0.1994	0.2480
q	0.1881	0.2290
r	0.1379	0.2430
s	0.1148	0.1900
t	0.1286	0.2400
u	0.0543	0.2300
v	0.0239	0.1830