



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 10:15 PM GMT

PDB ID : 4V95
Title : Crystal structure of YAEJ bound to the 70S ribosome
Authors : Gagnon, M.G.; Seetharaman, S.V.; Bulkley, D.P.; Steitz, T.A.
Deposited on : 2012-01-27
Resolution : 3.20 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Mogul : 1.7 (RC4), CSD as536be (2015)
Xtriage (Phenix) : 1.9-1692
EDS : rb-20026688
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Refmac : 5.8.0135
CCP4 : 6.5.0
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : trunk26865

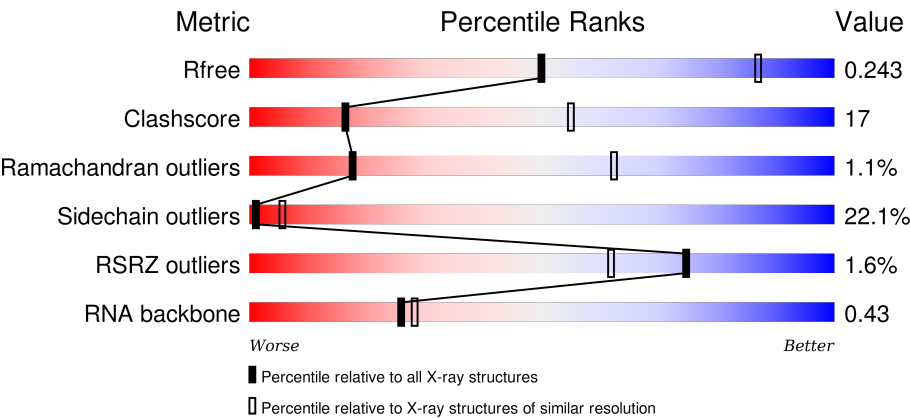
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.20 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.






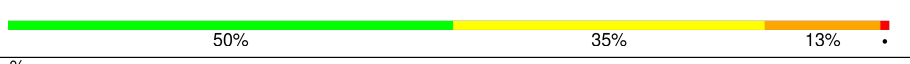
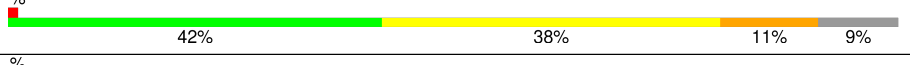
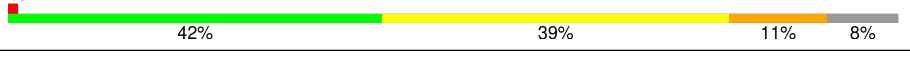
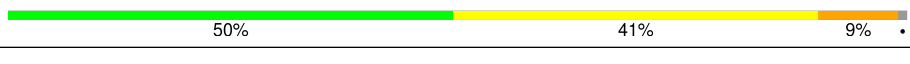

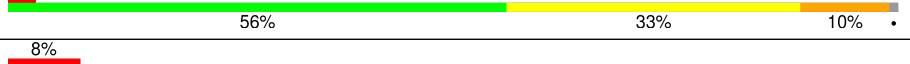








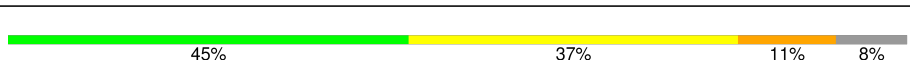
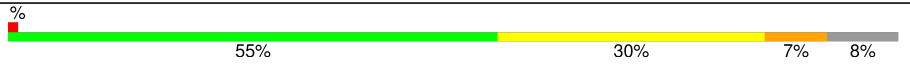


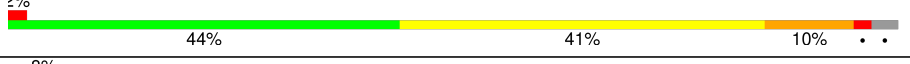



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	91344	1124 (3.24-3.16)
Clashscore	102246	1024 (3.22-3.18)
Ramachandran outliers	100387	1004 (3.22-3.18)
Sidechain outliers	100360	1003 (3.22-3.18)
RSRZ outliers	91569	1129 (3.24-3.16)
RNA backbone	2183	1079 (3.70-2.70)

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

Mol	Chain	Length	Quality of chain
1	AA	1522	<div><div>2%</div><div><div></div><div>25%</div><div>43%</div><div>23%</div><div>6%</div><div></div></div><div></div></div>
1	CA	1522	<div><div>2%</div><div><div></div><div>29%</div><div>43%</div><div>20%</div><div></div><div></div></div><div></div></div>
2	AB	256	<div><div></div><div><div></div><div>36%</div><div>42%</div><div>12%</div><div></div><div>9%</div></div><div></div></div>
2	CB	256	<div><div>4%</div><div><div></div><div>31%</div><div>49%</div><div>11%</div><div></div><div>8%</div></div><div></div></div>


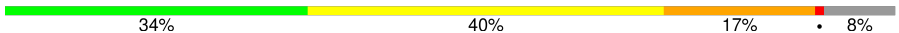
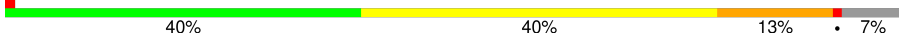


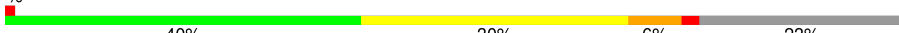
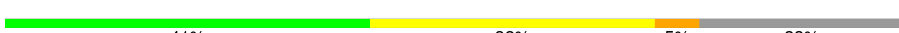









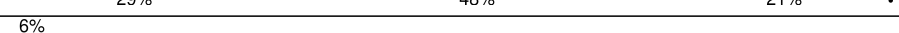



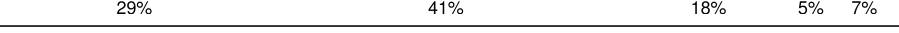
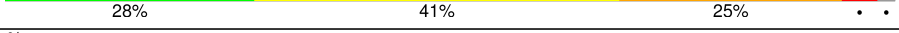
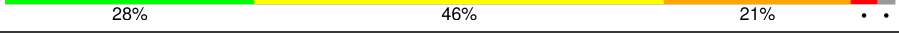


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Mol	Chain	Length	Quality of chain
3	AC	239	
3	CC	239	
4	AD	209	
4	CD	209	
5	AE	162	
5	CE	162	
6	AF	101	
6	CF	101	
7	AG	156	
7	CG	156	
8	AH	138	
8	CH	138	
9	AI	128	
9	CI	128	
10	AJ	105	
10	CJ	105	
11	AK	129	
11	CK	129	
12	AL	132	
12	CL	132	
13	AM	126	
13	CM	126	
14	AN	61	
14	CN	61	
15	AO	89	



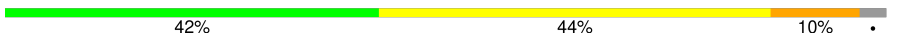






















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Mol	Chain	Length	Quality of chain
15	CO	89	
16	AP	88	
16	CP	88	
17	AQ	105	
17	CQ	105	
18	AR	88	
18	CR	88	
19	AS	93	
19	CS	93	
20	AT	106	
20	CT	106	
21	AU	27	
21	CU	27	
22	AY	140	
23	AV	77	
23	CV	77	
24	AX	16	
24	CX	16	
25	BA	2915	
25	DA	2915	
26	BB	122	
26	DB	122	
27	BD	276	
27	DD	276	
28	BE	206	


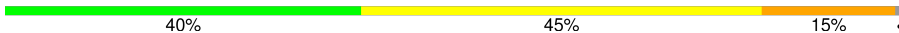





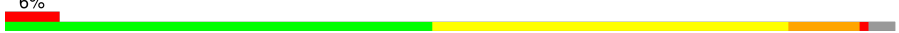



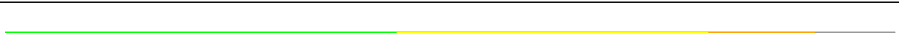













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Mol	Chain	Length	Quality of chain
28	DE	206	
29	BF	210	
29	DF	210	
30	BG	182	
30	DG	182	
31	BH	180	
31	DH	180	
32	BI	148	
32	DI	148	
33	BN	140	
33	DN	140	
34	BO	122	
34	DO	122	
35	BP	150	
35	DP	150	
36	BQ	141	
36	DQ	141	
37	BR	118	
37	DR	118	
38	BS	112	
38	DS	112	
39	BT	146	
39	DT	146	
40	BU	118	
40	DU	118	






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Mol	Chain	Length	Quality of chain
41	BV	101	
41	DV	101	
42	BW	113	
42	DW	113	
43	BX	96	
43	DX	96	
44	BY	110	
44	DY	110	
45	BZ	206	
45	DZ	206	
46	B0	85	
46	D0	85	
47	B1	98	
47	D1	98	
48	B2	72	
48	D2	72	
49	B3	60	
49	D3	60	
50	B4	71	
50	D4	71	
51	B5	60	
51	D5	60	
52	B6	54	
52	D6	54	
53	B7	49	

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Mol	Chain	Length	Quality of chain
53	D7	49	
54	B8	65	
54	D8	65	
55	B9	37	
55	D9	37	

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
56	MG	AA	1604	-	-	-	X
56	MG	AA	1607	-	-	-	X
56	MG	AA	1619	-	-	-	X
56	MG	AA	1626	-	-	-	X
56	MG	AA	1628	-	-	-	X
56	MG	AA	1630	-	-	-	X
56	MG	AA	1631	-	-	-	X
56	MG	AA	1635	-	-	-	X
56	MG	AA	1636	-	-	-	X
56	MG	AA	1642	-	-	-	X
56	MG	AA	1644	-	-	-	X
56	MG	AA	1645	-	-	-	X
56	MG	AA	1648	-	-	-	X
56	MG	AA	1650	-	-	-	X
56	MG	AA	1659	-	-	-	X
56	MG	AA	1663	-	-	-	X
56	MG	AA	1683	-	-	-	X
56	MG	AA	1685	-	-	-	X
56	MG	AA	1687	-	-	-	X
56	MG	AA	1711	-	-	-	X
56	MG	AA	1726	-	-	-	X
56	MG	AA	1728	-	-	-	X
56	MG	AA	1735	-	-	-	X
56	MG	AA	1739	-	-	-	X
56	MG	AA	1754	-	-	-	X
56	MG	AA	1771	-	-	-	X
56	MG	AA	1776	-	-	-	X
56	MG	AA	1782	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	AA	1786	-	-	-	X
56	MG	AA	1797	-	-	-	X
56	MG	AA	1800	-	-	-	X
56	MG	AA	1806	-	-	-	X
56	MG	AA	1809	-	-	-	X
56	MG	AA	1822	-	-	-	X
56	MG	AA	1838	-	-	-	X
56	MG	AA	1842	-	-	-	X
56	MG	AA	1845	-	-	-	X
56	MG	AA	1872	-	-	-	X
56	MG	AA	1874	-	-	-	X
56	MG	AA	1897	-	-	-	X
56	MG	AA	1919	-	-	-	X
56	MG	AD	302	-	-	-	X
56	MG	AV	101	-	-	-	X
56	MG	B1	101	-	-	-	X
56	MG	B2	102	-	-	-	X
56	MG	B3	101	-	-	-	X
56	MG	BA	3012	-	-	-	X
56	MG	BA	3014	-	-	-	X
56	MG	BA	3029	-	-	-	X
56	MG	BA	3030	-	-	-	X
56	MG	BA	3035	-	-	-	X
56	MG	BA	3038	-	-	-	X
56	MG	BA	3043	-	-	-	X
56	MG	BA	3045	-	-	-	X
56	MG	BA	3048	-	-	-	X
56	MG	BA	3051	-	-	-	X
56	MG	BA	3052	-	-	-	X
56	MG	BA	3056	-	-	-	X
56	MG	BA	3059	-	-	-	X
56	MG	BA	3061	-	-	-	X
56	MG	BA	3064	-	-	-	X
56	MG	BA	3069	-	-	-	X
56	MG	BA	3073	-	-	-	X
56	MG	BA	3076	-	-	-	X
56	MG	BA	3077	-	-	-	X
56	MG	BA	3084	-	-	-	X
56	MG	BA	3092	-	-	-	X
56	MG	BA	3098	-	-	-	X
56	MG	BA	3123	-	-	-	X
56	MG	BA	3124	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	BA	3134	-	-	-	X
56	MG	BA	3145	-	-	-	X
56	MG	BA	3154	-	-	-	X
56	MG	BA	3156	-	-	-	X
56	MG	BA	3165	-	-	-	X
56	MG	BA	3166	-	-	-	X
56	MG	BA	3169	-	-	-	X
56	MG	BA	3183	-	-	-	X
56	MG	BA	3188	-	-	-	X
56	MG	BA	3193	-	-	-	X
56	MG	BA	3199	-	-	-	X
56	MG	BA	3200	-	-	-	X
56	MG	BA	3203	-	-	-	X
56	MG	BA	3204	-	-	-	X
56	MG	BA	3209	-	-	-	X
56	MG	BA	3210	-	-	-	X
56	MG	BA	3211	-	-	-	X
56	MG	BA	3218	-	-	-	X
56	MG	BA	3220	-	-	-	X
56	MG	BA	3221	-	-	-	X
56	MG	BA	3224	-	-	-	X
56	MG	BA	3225	-	-	-	X
56	MG	BA	3227	-	-	-	X
56	MG	BA	3233	-	-	-	X
56	MG	BA	3243	-	-	-	X
56	MG	BA	3248	-	-	-	X
56	MG	BA	3250	-	-	-	X
56	MG	BA	3252	-	-	-	X
56	MG	BA	3254	-	-	-	X
56	MG	BA	3317	-	-	-	X
56	MG	BA	3340	-	-	-	X
56	MG	BA	3366	-	-	-	X
56	MG	BA	3367	-	-	-	X
56	MG	BA	3374	-	-	-	X
56	MG	BA	3375	-	-	-	X
56	MG	BA	3376	-	-	-	X
56	MG	BA	3383	-	-	-	X
56	MG	BA	3390	-	-	-	X
56	MG	BA	3408	-	-	-	X
56	MG	BA	3410	-	-	-	X
56	MG	BA	3411	-	-	-	X
56	MG	BA	3419	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	BA	3437	-	-	-	X
56	MG	BA	3450	-	-	-	X
56	MG	BA	3453	-	-	-	X
56	MG	BA	3455	-	-	-	X
56	MG	BA	3467	-	-	-	X
56	MG	BA	3477	-	-	-	X
56	MG	BA	3484	-	-	-	X
56	MG	BA	3488	-	-	-	X
56	MG	BA	3548	-	-	-	X
56	MG	BA	3550	-	-	-	X
56	MG	BA	3571	-	-	-	X
56	MG	BA	3581	-	-	-	X
56	MG	BA	3582	-	-	-	X
56	MG	BA	3602	-	-	-	X
56	MG	BA	3614	-	-	-	X
56	MG	BA	3648	-	-	-	X
56	MG	BA	3654	-	-	-	X
56	MG	BA	3675	-	-	-	X
56	MG	BA	3676	-	-	-	X
56	MG	BA	3682	-	-	-	X
56	MG	BA	3687	-	-	-	X
56	MG	BA	3700	-	-	-	X
56	MG	BA	3702	-	-	-	X
56	MG	BA	3732	-	-	-	X
56	MG	BA	3753	-	-	-	X
56	MG	BA	3759	-	-	-	X
56	MG	BA	3766	-	-	-	X
56	MG	BA	3770	-	-	-	X
56	MG	BA	3782	-	-	-	X
56	MG	BA	3791	-	-	-	X
56	MG	BA	3805	-	-	-	X
56	MG	BA	3809	-	-	-	X
56	MG	BA	3837	-	-	-	X
56	MG	BA	3853	-	-	-	X
56	MG	BA	3854	-	-	-	X
56	MG	BA	3868	-	-	-	X
56	MG	BA	3872	-	-	-	X
56	MG	BA	3875	-	-	-	X
56	MG	BA	3887	-	-	-	X
56	MG	BA	3894	-	-	-	X
56	MG	BB	201	-	-	-	X
56	MG	BB	213	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	BD	301	-	-	-	X
56	MG	BD	302	-	-	-	X
56	MG	BD	303	-	-	-	X
56	MG	BE	301	-	-	-	X
56	MG	BF	305	-	-	-	X
56	MG	BG	201	-	-	-	X
56	MG	BP	201	-	-	-	X
56	MG	BR	201	-	-	-	X
56	MG	BU	201	-	-	-	X
56	MG	BV	201	-	-	-	X
56	MG	CA	1602	-	-	-	X
56	MG	CA	1605	-	-	-	X
56	MG	CA	1606	-	-	-	X
56	MG	CA	1608	-	-	-	X
56	MG	CA	1612	-	-	-	X
56	MG	CA	1621	-	-	-	X
56	MG	CA	1625	-	-	-	X
56	MG	CA	1628	-	-	-	X
56	MG	CA	1637	-	-	-	X
56	MG	CA	1647	-	-	-	X
56	MG	CA	1656	-	-	-	X
56	MG	CA	1679	-	-	-	X
56	MG	CA	1682	-	-	-	X
56	MG	CA	1690	-	-	-	X
56	MG	CA	1691	-	-	-	X
56	MG	CA	1692	-	-	-	X
56	MG	CA	1693	-	-	-	X
56	MG	CA	1697	-	-	-	X
56	MG	CA	1705	-	-	-	X
56	MG	CA	1706	-	-	-	X
56	MG	CA	1722	-	-	-	X
56	MG	CA	1726	-	-	-	X
56	MG	CA	1732	-	-	-	X
56	MG	CA	1737	-	-	-	X
56	MG	CA	1743	-	-	-	X
56	MG	CA	1745	-	-	-	X
56	MG	CA	1753	-	-	-	X
56	MG	CA	1761	-	-	-	X
56	MG	CA	1778	-	-	-	X
56	MG	CA	1788	-	-	-	X
56	MG	D0	101	-	-	-	X
56	MG	D1	101	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	D6	102	-	-	-	X
56	MG	D6	103	-	-	-	X
56	MG	D7	101	-	-	-	X
56	MG	DA	3017	-	-	-	X
56	MG	DA	3018	-	-	-	X
56	MG	DA	3021	-	-	-	X
56	MG	DA	3024	-	-	-	X
56	MG	DA	3029	-	-	-	X
56	MG	DA	3030	-	-	-	X
56	MG	DA	3041	-	-	-	X
56	MG	DA	3044	-	-	-	X
56	MG	DA	3045	-	-	-	X
56	MG	DA	3047	-	-	-	X
56	MG	DA	3051	-	-	-	X
56	MG	DA	3054	-	-	-	X
56	MG	DA	3059	-	-	-	X
56	MG	DA	3068	-	-	-	X
56	MG	DA	3074	-	-	-	X
56	MG	DA	3075	-	-	-	X
56	MG	DA	3079	-	-	-	X
56	MG	DA	3080	-	-	-	X
56	MG	DA	3087	-	-	-	X
56	MG	DA	3097	-	-	-	X
56	MG	DA	3100	-	-	-	X
56	MG	DA	3101	-	-	-	X
56	MG	DA	3109	-	-	-	X
56	MG	DA	3121	-	-	-	X
56	MG	DA	3123	-	-	-	X
56	MG	DA	3124	-	-	-	X
56	MG	DA	3127	-	-	-	X
56	MG	DA	3141	-	-	-	X
56	MG	DA	3142	-	-	-	X
56	MG	DA	3146	-	-	-	X
56	MG	DA	3153	-	-	-	X
56	MG	DA	3156	-	-	-	X
56	MG	DA	3168	-	-	-	X
56	MG	DA	3172	-	-	-	X
56	MG	DA	3175	-	-	-	X
56	MG	DA	3178	-	-	-	X
56	MG	DA	3192	-	-	-	X
56	MG	DA	3197	-	-	-	X
56	MG	DA	3198	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	DA	3218	-	-	-	X
56	MG	DA	3244	-	-	-	X
56	MG	DA	3249	-	-	-	X
56	MG	DA	3250	-	-	-	X
56	MG	DA	3251	-	-	-	X
56	MG	DA	3264	-	-	-	X
56	MG	DA	3273	-	-	-	X
56	MG	DA	3274	-	-	-	X
56	MG	DA	3277	-	-	-	X
56	MG	DA	3284	-	-	-	X
56	MG	DA	3285	-	-	-	X
56	MG	DA	3286	-	-	-	X
56	MG	DA	3312	-	-	-	X
56	MG	DA	3317	-	-	-	X
56	MG	DA	3321	-	-	-	X
56	MG	DA	3325	-	-	-	X
56	MG	DA	3341	-	-	-	X
56	MG	DA	3347	-	-	-	X
56	MG	DA	3353	-	-	-	X
56	MG	DA	3354	-	-	-	X
56	MG	DA	3357	-	-	-	X
56	MG	DA	3369	-	-	-	X
56	MG	DA	3386	-	-	-	X
56	MG	DA	3393	-	-	-	X
56	MG	DA	3399	-	-	-	X
56	MG	DA	3403	-	-	-	X
56	MG	DA	3417	-	-	-	X
56	MG	DA	3419	-	-	-	X
56	MG	DA	3427	-	-	-	X
56	MG	DA	3433	-	-	-	X
56	MG	DA	3447	-	-	-	X
56	MG	DA	3450	-	-	-	X
56	MG	DA	3451	-	-	-	X
56	MG	DA	3452	-	-	-	X
56	MG	DA	3459	-	-	-	X
56	MG	DA	3460	-	-	-	X
56	MG	DA	3461	-	-	-	X
56	MG	DA	3486	-	-	-	X
56	MG	DA	3510	-	-	-	X
56	MG	DA	3515	-	-	-	X
56	MG	DA	3525	-	-	-	X
56	MG	DA	3530	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	DA	3536	-	-	-	X
56	MG	DA	3537	-	-	-	X
56	MG	DA	3539	-	-	-	X
56	MG	DA	3540	-	-	-	X
56	MG	DA	3550	-	-	-	X
56	MG	DA	3552	-	-	-	X
56	MG	DA	3553	-	-	-	X
56	MG	DA	3558	-	-	-	X
56	MG	DA	3567	-	-	-	X
56	MG	DA	3572	-	-	-	X
56	MG	DA	3576	-	-	-	X
56	MG	DA	3585	-	-	-	X
56	MG	DA	3586	-	-	-	X
56	MG	DA	3598	-	-	-	X
56	MG	DA	3599	-	-	-	X
56	MG	DA	3600	-	-	-	X
56	MG	DA	3601	-	-	-	X
56	MG	DA	3615	-	-	-	X
56	MG	DA	3624	-	-	-	X
56	MG	DA	3625	-	-	-	X
56	MG	DA	3627	-	-	-	X
56	MG	DA	3629	-	-	-	X
56	MG	DA	3632	-	-	-	X
56	MG	DA	3646	-	-	-	X
56	MG	DA	3666	-	-	-	X
56	MG	DA	3677	-	-	-	X
56	MG	DA	3679	-	-	-	X
56	MG	DA	3692	-	-	-	X
56	MG	DB	201	-	-	-	X
56	MG	DB	203	-	-	-	X
56	MG	DD	302	-	-	-	X
56	MG	DD	303	-	-	-	X
56	MG	DE	302	-	-	-	X
56	MG	DE	303	-	-	-	X
56	MG	DF	302	-	-	-	X
56	MG	DQ	202	-	-	-	X
56	MG	DT	203	-	-	-	X
56	MG	DV	201	-	-	-	X

2 Entry composition

There are 58 unique types of molecules in this entry. The entry contains 284877 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1466	Total	C	N	O	P	0	0	0
			31513	14026	5840	10181	1466			
1	CA	1461	Total	C	N	O	P	0	0	0
			31406	13979	5822	10145	1460			

- Molecule 2 is a protein called 30S Ribosomal Protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	233	Total	C	N	O	S	0	0	0
			1809	1157	322	325	5			
2	CB	235	Total	C	N	O	S	0	0	1
			1817	1160	325	327	5			

- Molecule 3 is a protein called 30S Ribosomal Protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AC	204	Total	C	N	O	S	0	0	0
			1434	896	277	260	1			
3	CC	206	Total	C	N	O	S	0	0	0
			1453	908	280	264	1			

- Molecule 4 is a protein called 30S Ribosomal Protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AD	208	Total	C	N	O	S	0	0	0
			1520	960	283	272	5			
4	CD	208	Total	C	N	O	S	0	0	0
			1537	968	287	276	6			

- Molecule 5 is a protein called 30S Ribosomal Protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AE	148	Total	C	N	O	S	0	0	0
			1105	699	204	198	4			
5	CE	149	Total	C	N	O	S	0	0	0
			1115	706	206	199	4			

- Molecule 6 is a protein called 30S Ribosomal Protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	100	Total	C	N	O	S	0	0	0
			781	495	137	146	3			
6	CF	100	Total	C	N	O	S	0	0	0
			784	496	137	148	3			

- Molecule 7 is a protein called 30S Ribosomal Protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AG	154	Total	C	N	O	S	0	0	0
			1152	716	222	208	6			
7	CG	154	Total	C	N	O	S	0	0	0
			1149	715	222	206	6			

- Molecule 8 is a protein called 30S Ribosomal Protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AH	138	Total	C	N	O	S	0	0	0
			1045	665	188	190	2			
8	CH	138	Total	C	N	O	S	0	0	0
			1049	667	188	192	2			

- Molecule 9 is a protein called 30S Ribosomal Protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	AI	125	Total	C	N	O	0	0	0
			863	542	164	157			
9	CI	125	Total	C	N	O	0	0	0
			849	531	161	157			

- Molecule 10 is a protein called 30S Ribosomal Protein S10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
10	AJ	96	Total	C	N	O	0	0	0
			659	408	131	120			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
10	CJ	96	Total	C	N	O			
			657	407	129	121	0	0	0

- Molecule 11 is a protein called 30S Ribosomal Protein S11.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
11	AK	115	Total	C	N	O	S		
			843	524	160	156	3	0	0
11	CK	114	Total	C	N	O	S		
			828	516	155	154	3	0	0

- Molecule 12 is a protein called 30S Ribosomal Protein S12.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
12	AL	122	Total	C	N	O	S		
			909	570	179	159	1	0	0
12	CL	122	Total	C	N	O	S		
			905	567	178	159	1	0	0

- Molecule 13 is a protein called 30S Ribosomal Protein S13.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
13	AM	115	Total	C	N	O	S		
			814	503	166	144	1	0	0
13	CM	112	Total	C	N	O	S		
			784	486	159	138	1	0	0

- Molecule 14 is a protein called 30S Ribosomal Protein S14.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
14	AN	59	Total	C	N	O	S		
			473	300	98	71	4	0	0
14	CN	59	Total	C	N	O	S		
			469	297	97	71	4	0	0

- Molecule 15 is a protein called 30S Ribosomal Protein S15.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
15	AO	88	Total	C	N	O	S		
			724	453	143	126	2	0	0
15	CO	88	Total	C	N	O	S		
			724	453	143	126	2	0	0

- Molecule 16 is a protein called 30S Ribosomal Protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AP	81	Total	C	N	O	S	0	0	0
			646	413	122	110	1			
16	CP	82	Total	C	N	O	S	0	0	0
			661	421	126	113	1			

- Molecule 17 is a protein called 30S Ribosomal Protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			
17	CQ	99	Total	C	N	O	S	0	0	0
			819	525	150	142	2			

- Molecule 18 is a protein called 30S Ribosomal Protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	AR	68	Total	C	N	O	0	0	0
			514	329	98	87			
18	CR	68	Total	C	N	O	0	0	0
			514	329	98	87			

- Molecule 19 is a protein called 30S Ribosomal Protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	81	Total	C	N	O	S	0	0	0
			560	351	108	99	2			
19	CS	75	Total	C	N	O	S	0	0	0
			529	332	102	93	2			

- Molecule 20 is a protein called 30S Ribosomal Protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	96	Total	C	N	O	S	0	0	0
			714	438	154	120	2			
20	CT	104	Total	C	N	O	S	0	0	0
			773	476	162	133	2			

- Molecule 21 is a protein called 30S Ribosomal Protein THX.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	AU	25	Total	C	N	O	0	0	0
			217	134	52	31			
21	CU	23	Total	C	N	O	0	0	0
			180	112	41	27			

- Molecule 22 is a protein called YAEJ.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AY	132	Total	C	N	O	S	0	0	0
			1031	638	204	187	2			

- Molecule 23 is a RNA chain called P-site fMet-tRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AV	77	Total	C	N	O	P	0	0	0
			1644	732	297	538	77			
23	CV	77	Total	C	N	O	P	0	0	0
			1644	732	297	538	77			

- Molecule 24 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AX	6	Total	C	N	O	P	0	0	0
			131	59	27	39	6			
24	CX	6	Total	C	N	O	P	0	0	0
			131	59	27	39	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BA	2752	Total	C	N	O	P	0	0	0
			59281	26384	11101	19045	2751			
25	DA	2722	Total	C	N	O	P	0	0	0
			58627	26093	10971	18843	2720			

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

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

- Molecule 27 is a protein called 50S Ribosomal Protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BD	275	Total	C	N	O	S	0	0	0
			2131	1346	422	360	3			
27	DD	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			

- Molecule 28 is a protein called 50S Ribosomal Protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BE	204	Total	C	N	O	S	0	0	0
			1555	982	297	270	6			
28	DE	204	Total	C	N	O	S	0	0	0
			1555	982	297	270	6			

- Molecule 29 is a protein called 50S Ribosomal Protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	BF	203	Total	C	N	O	S	0	0	1
			1576	1005	297	272	2			
29	DF	203	Total	C	N	O	S	0	0	1
			1578	1007	297	272	2			

- Molecule 30 is a protein called 50S Ribosomal Protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	BG	181	Total	C	N	O	S	0	0	0
			1368	879	242	244	3			
30	DG	180	Total	C	N	O	S	0	0	0
			1361	874	241	243	3			

- Molecule 31 is a protein called 50S Ribosomal Protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BH	174	Total	C	N	O	S	0	0	0
			1317	837	243	236	1			
31	DH	174	Total	C	N	O	S	0	0	0
			1317	837	243	236	1			

- Molecule 32 is a protein called 50S Ribosomal Protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BI	147	Total	C	N	O	S	0	0	0
			1066	687	184	194	1			
32	DI	146	Total	C	N	O	S	0	0	0
			1057	682	182	192	1			

- Molecule 33 is a protein called 50S Ribosomal Protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BN	140	Total	C	N	O	S	0	0	0
			1112	717	207	184	4			
33	DN	140	Total	C	N	O	S	0	0	0
			1112	717	207	184	4			

- Molecule 34 is a protein called 50S Ribosomal Protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BO	122	Total	C	N	O	S	0	0	0
			923	583	168	168	4			
34	DO	122	Total	C	N	O	S	0	0	0
			923	583	168	168	4			

- Molecule 35 is a protein called 50S Ribosomal Protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BP	149	Total	C	N	O	S	0	0	0
			1131	703	229	196	3			
35	DP	149	Total	C	N	O	S	0	0	0
			1131	703	229	196	3			

- Molecule 36 is a protein called 50S Ribosomal Protein L16.

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

- Molecule 37 is a protein called 50S Ribosomal Protein L17.

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

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

- Molecule 38 is a protein called 50S Ribosomal Protein L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BS	110	Total	C	N	O		0	0	0
			865	544	172	149				
38	DS	110	Total	C	N	O		0	0	0
			873	550	174	149				

- Molecule 39 is a protein called 50S Ribosomal Protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BT	132	Total	C	N	O	S	0	0	0
			1072	672	215	184	1			
39	DT	130	Total	C	N	O	S	0	0	0
			1058	663	212	182	1			

- Molecule 40 is a protein called 50S Ribosomal Protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BU	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			
40	DU	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			

- Molecule 41 is a protein called 50S Ribosomal Protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BV	100	Total	C	N	O	S	0	0	0
			766	493	139	133	1			
41	DV	100	Total	C	N	O	S	0	0	0
			770	496	140	133	1			

- Molecule 42 is a protein called 50S Ribosomal Protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BW	112	Total	C	N	O	S	0	0	0
			890	560	175	153	2			
42	DW	111	Total	C	N	O	S	0	0	0
			877	552	171	152	2			

- Molecule 43 is a protein called 50S Ribosomal Protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BX	95	Total	C	N	O	S	0	0	0
			742	483	134	124	1			
43	DX	95	Total	C	N	O	S	0	0	0
			732	477	130	124	1			

- Molecule 44 is a protein called 50S Ribosomal Protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BY	107	Total	C	N	O	S	0	0	0
			785	503	145	131	6			
44	DY	107	Total	C	N	O	S	0	0	0
			781	502	145	128	6			

- Molecule 45 is a protein called 50S Ribosomal Protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BZ	186	Total	C	N	O	S	0	0	0
			1454	929	256	267	2			
45	DZ	189	Total	C	N	O	S	0	0	0
			1451	925	253	270	3			

- Molecule 46 is a protein called 50S Ribosomal Protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	B0	76	Total	C	N	O	S	0	0	0
			594	368	125	100	1			
46	D0	77	Total	C	N	O	S	0	0	0
			607	376	126	104	1			

- Molecule 47 is a protein called 50S Ribosomal Protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	B1	97	Total	C	N	O	S	0	0	0
			745	469	144	131	1			
47	D1	97	Total	C	N	O	S	0	0	0
			745	469	144	131	1			

- Molecule 48 is a protein called 50S Ribosomal Protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	B2	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			
48	D2	71	Total	C	N	O	S	0	0	0
			584	361	118	103	2			

- Molecule 49 is a protein called 50S Ribosomal Protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	B3	59	Total	C	N	O	S	0	0	0
			458	293	87	78				
49	D3	58	Total	C	N	O	S	0	0	0
			453	290	86	77				

- Molecule 50 is a protein called 50S Ribosomal Protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B4	46	Total	C	N	O	S	0	0	0
			349	223	57	64	5			
50	D4	46	Total	C	N	O	S	0	0	0
			349	223	57	64	5			

- Molecule 51 is a protein called 50S Ribosomal Protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B5	59	Total	C	N	O	S	0	0	0
			455	286	90	74	5			
51	D5	59	Total	C	N	O	S	0	0	0
			451	283	89	74	5			

- Molecule 52 is a protein called 50S Ribosomal Protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B6	53	Total	C	N	O	S	0	0	0
			449	278	90	77	4			
52	D6	53	Total	C	N	O	S	0	0	0
			437	272	84	77	4			

- Molecule 53 is a protein called 50S Ribosomal Protein L34.

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

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	D7	48	Total	C	N	O	S	0	0	0
			402	248	97	55	2			

- Molecule 54 is a protein called 50S Ribosomal Protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	B8	64	Total	C	N	O	S	0	0	0
			509	326	99	82	2			
54	D8	64	Total	C	N	O	S	0	0	0
			509	326	99	82	2			

- Molecule 55 is a protein called 50S Ribosomal Protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	B9	36	Total	C	N	O	S	0	0	0
			297	182	66	46	3			
55	D9	35	Total	C	N	O	S	0	0	0
			292	180	65	44	3			

- Molecule 56 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	BA	896	Total	Mg	0	0
			896	896		
56	AK	1	Total	Mg	0	0
			1	1		
56	DQ	2	Total	Mg	0	0
			2	2		
56	DF	3	Total	Mg	0	0
			3	3		
56	CV	10	Total	Mg	0	0
			10	10		
56	B8	2	Total	Mg	0	0
			2	2		
56	BE	5	Total	Mg	0	0
			5	5		
56	DU	1	Total	Mg	0	0
			1	1		
56	B1	3	Total	Mg	0	0
			3	3		
56	CD	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	BP	2	Total 2	Mg 2	0	0
56	DR	1	Total 1	Mg 1	0	0
56	CA	219	Total 219	Mg 219	0	0
56	B5	3	Total 3	Mg 3	0	0
56	BB	30	Total 30	Mg 30	0	0
56	BT	1	Total 1	Mg 1	0	0
56	D8	1	Total 1	Mg 1	0	0
56	AE	1	Total 1	Mg 1	0	0
56	B9	1	Total 1	Mg 1	0	0
56	BF	7	Total 7	Mg 7	0	0
56	AV	18	Total 18	Mg 18	0	0
56	BX	1	Total 1	Mg 1	0	0
56	B2	2	Total 2	Mg 2	0	0
56	AA	348	Total 348	Mg 348	0	0
56	BQ	4	Total 4	Mg 4	0	0
56	D6	2	Total 2	Mg 2	0	0
56	CX	1	Total 1	Mg 1	0	0
56	DV	1	Total 1	Mg 1	0	0
56	B6	1	Total 1	Mg 1	0	0
56	BU	1	Total 1	Mg 1	0	0
56	D7	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	AD	2	Total 2	Mg 2	0	0
56	DD	4	Total 4	Mg 4	0	0
56	CT	1	Total 1	Mg 1	0	0
56	D0	4	Total 4	Mg 4	0	0
56	BG	2	Total 2	Mg 2	0	0
56	AI	2	Total 2	Mg 2	0	0
56	BY	2	Total 2	Mg 2	0	0
56	DE	4	Total 4	Mg 4	0	0
56	B3	2	Total 2	Mg 2	0	0
56	BR	2	Total 2	Mg 2	0	0
56	DA	696	Total 696	Mg 696	0	0
56	B7	1	Total 1	Mg 1	0	0
56	BV	2	Total 2	Mg 2	0	0
56	DO	3	Total 3	Mg 3	0	0
56	BO	2	Total 2	Mg 2	0	0
56	D1	1	Total 1	Mg 1	0	0
56	DX	1	Total 1	Mg 1	0	0
56	BZ	2	Total 2	Mg 2	0	0
56	D5	1	Total 1	Mg 1	0	0
56	BD	5	Total 5	Mg 5	0	0
56	AT	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	DT	3	Total 3	Mg 3	0	0
56	B0	5	Total 5	Mg 5	0	0
56	AY	1	Total 1	Mg 1	0	0
56	AF	1	Total 1	Mg 1	0	0
56	DB	16	Total 16	Mg 16	0	0

- Molecule 57 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	B5	1	Total 1	Zn 1	0	0
57	B4	1	Total 1	Zn 1	0	0
57	AD	1	Total 1	Zn 1	0	0
57	CD	1	Total 1	Zn 1	0	0
57	B9	1	Total 1	Zn 1	0	0
57	BY	1	Total 1	Zn 1	0	0
57	DY	1	Total 1	Zn 1	0	0
57	D5	1	Total 1	Zn 1	0	0
57	D4	1	Total 1	Zn 1	0	0
57	AN	1	Total 1	Zn 1	0	0
57	CN	1	Total 1	Zn 1	0	0
57	D6	1	Total 1	Zn 1	0	0
57	D9	1	Total 1	Zn 1	0	0
57	B6	1	Total 1	Zn 1	0	0

- Molecule 58 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	AA	372	Total 372	O 372	0	0
58	AD	2	Total 2	O 2	0	0
58	AE	3	Total 3	O 3	0	0
58	AI	1	Total 1	O 1	0	0
58	AK	2	Total 2	O 2	0	0
58	AL	2	Total 2	O 2	0	0
58	AN	1	Total 1	O 1	0	0
58	AT	5	Total 5	O 5	0	0
58	AY	2	Total 2	O 2	0	0
58	AV	16	Total 16	O 16	0	0
58	AX	1	Total 1	O 1	0	0
58	BA	1491	Total 1491	O 1491	0	0
58	BB	46	Total 46	O 46	0	0
58	BD	10	Total 10	O 10	0	0
58	BE	5	Total 5	O 5	0	0
58	BF	5	Total 5	O 5	0	0
58	BG	5	Total 5	O 5	0	0
58	BH	1	Total 1	O 1	0	0
58	BN	3	Total 3	O 3	0	0
58	BO	3	Total 3	O 3	0	0
58	BP	9	Total 9	O 9	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	BQ	4	Total 4	O 4	0	0
58	BR	7	Total 7	O 7	0	0
58	BT	1	Total 1	O 1	0	0
58	BU	7	Total 7	O 7	0	0
58	BV	1	Total 1	O 1	0	0
58	BW	2	Total 2	O 2	0	0
58	BX	2	Total 2	O 2	0	0
58	BY	1	Total 1	O 1	0	0
58	B0	4	Total 4	O 4	0	0
58	B1	1	Total 1	O 1	0	0
58	B3	1	Total 1	O 1	0	0
58	B6	4	Total 4	O 4	0	0
58	B7	2	Total 2	O 2	0	0
58	B8	4	Total 4	O 4	0	0
58	B9	1	Total 1	O 1	0	0
58	CA	330	Total 330	O 330	0	0
58	CB	1	Total 1	O 1	0	0
58	CC	1	Total 1	O 1	0	0
58	CD	3	Total 3	O 3	0	0
58	CE	1	Total 1	O 1	0	0
58	CK	2	Total 2	O 2	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	CL	3	Total 3	O 3	0	0
58	CN	2	Total 2	O 2	0	0
58	CO	2	Total 2	O 2	0	0
58	CQ	2	Total 2	O 2	0	0
58	CT	2	Total 2	O 2	0	0
58	CV	13	Total 13	O 13	0	0
58	CX	1	Total 1	O 1	0	0
58	DA	1028	Total 1028	O 1028	0	0
58	DB	40	Total 40	O 40	0	0
58	DD	8	Total 8	O 8	0	0
58	DE	11	Total 11	O 11	0	0
58	DF	4	Total 4	O 4	0	0
58	DG	1	Total 1	O 1	0	0
58	DN	3	Total 3	O 3	0	0
58	DO	5	Total 5	O 5	0	0
58	DP	4	Total 4	O 4	0	0
58	DR	5	Total 5	O 5	0	0
58	DT	3	Total 3	O 3	0	0
58	DV	1	Total 1	O 1	0	0
58	DW	1	Total 1	O 1	0	0
58	DY	2	Total 2	O 2	0	0

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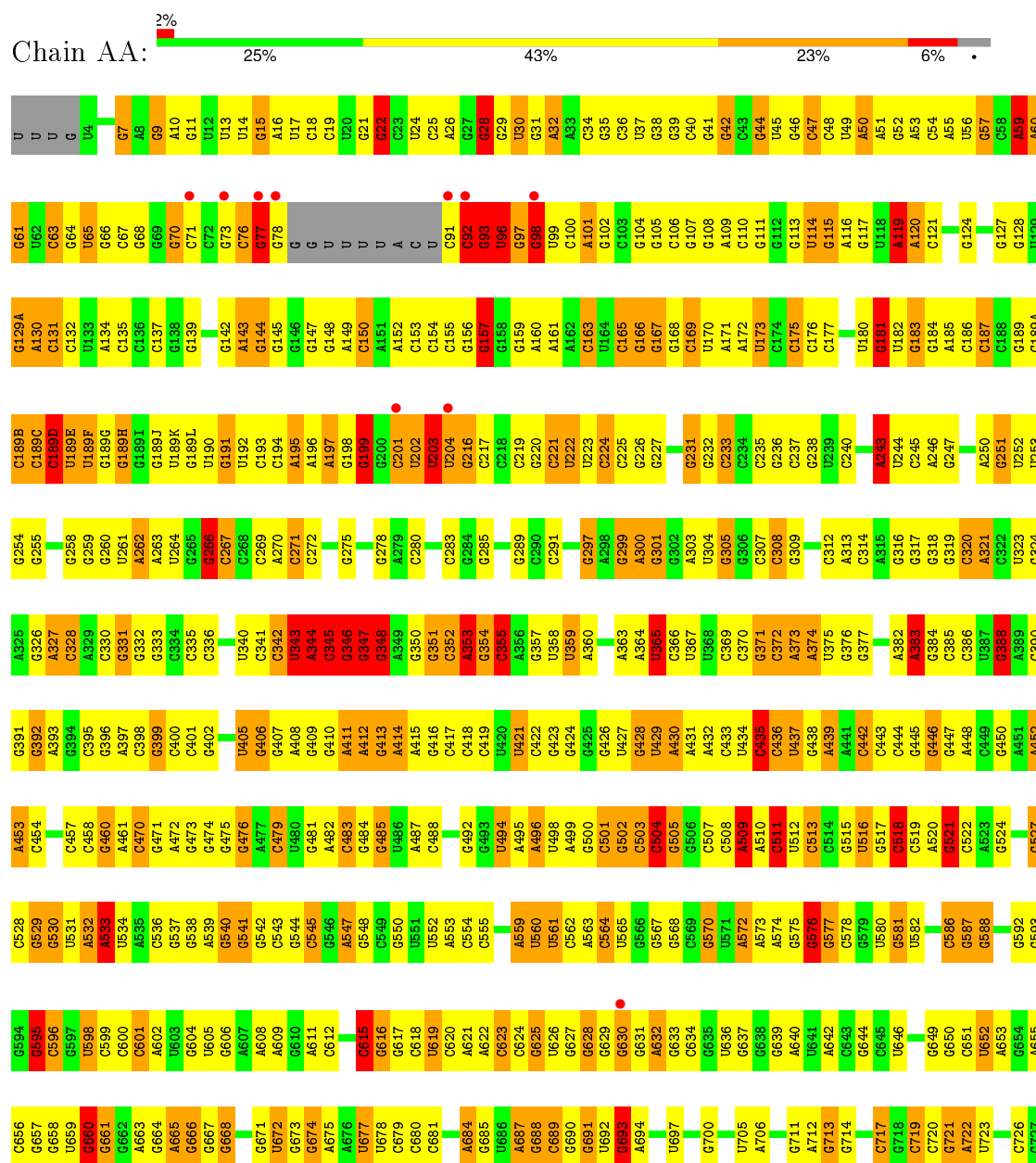
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	D1	3	Total 3	O 3	0	0
58	D3	1	Total 1	O 1	0	0
58	D6	2	Total 2	O 2	0	0
58	D7	2	Total 2	O 2	0	0
58	D8	4	Total 4	O 4	0	0

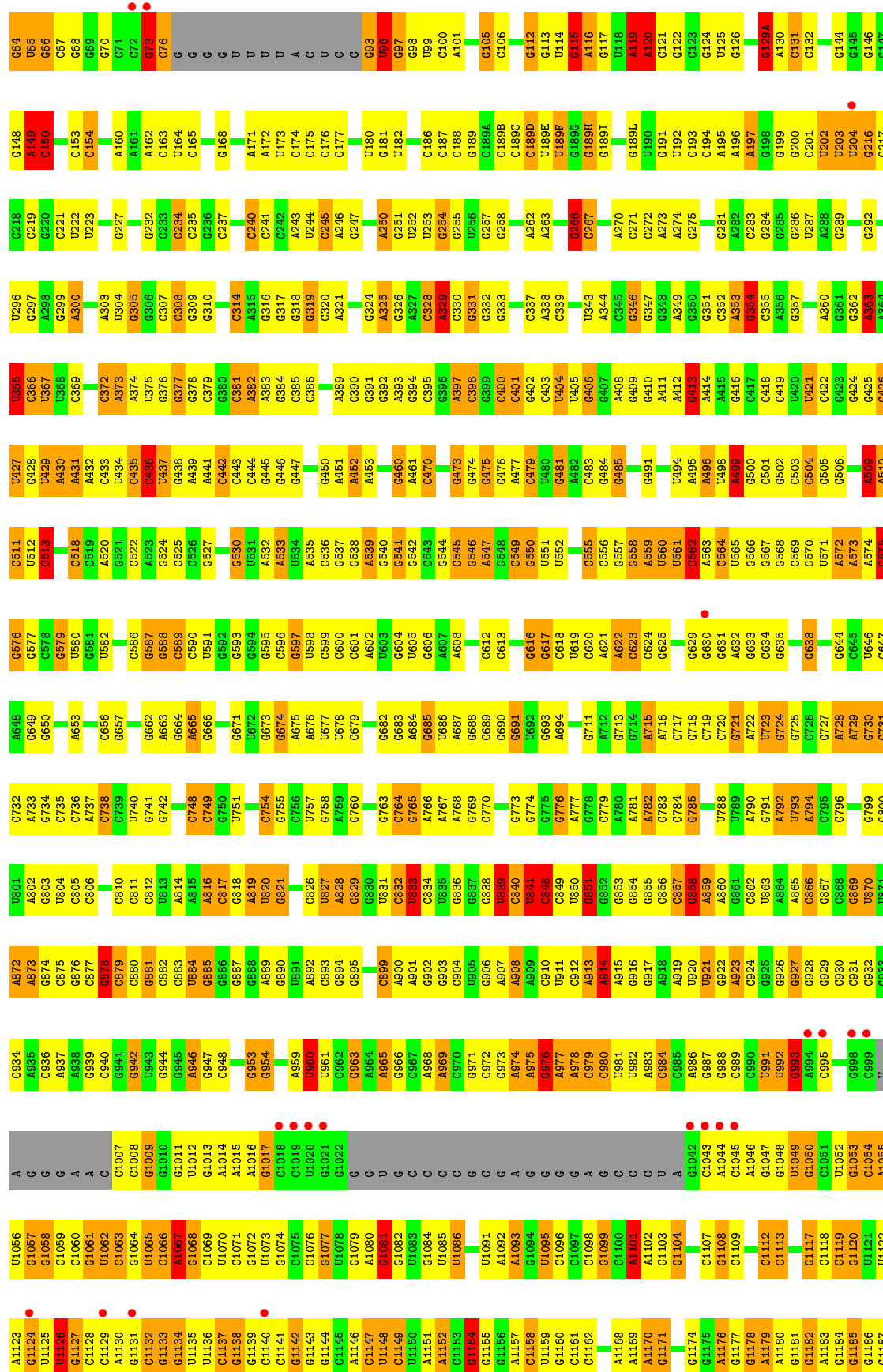
3 Residue-property plots

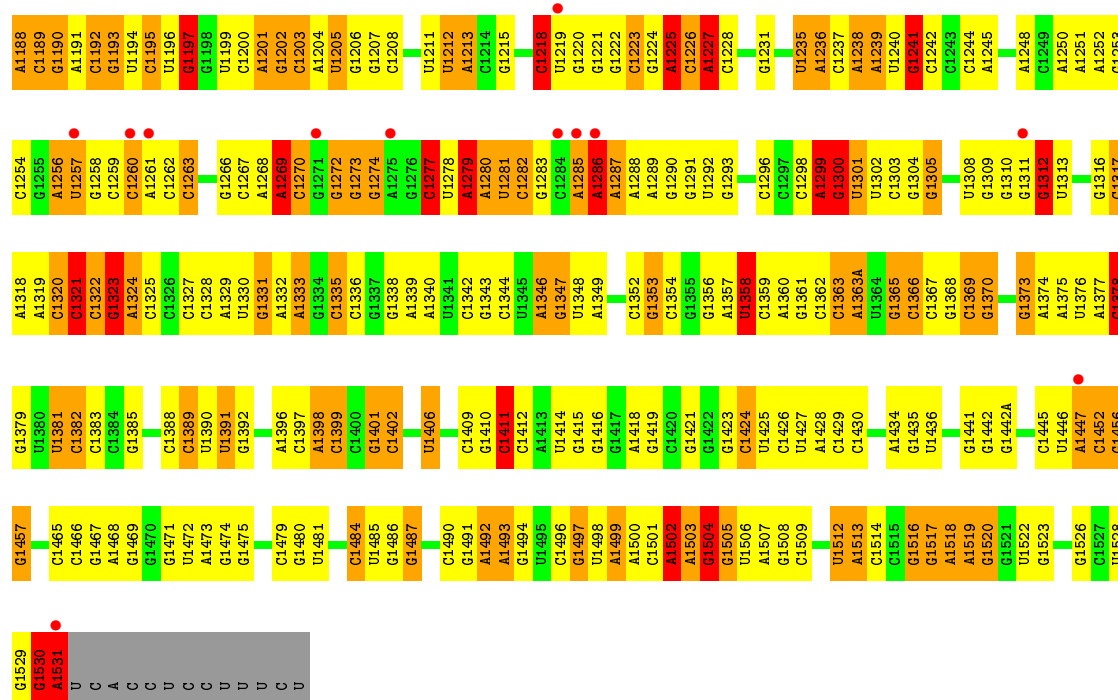
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according 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 dot above a residue indicates a poor fit to the electron density ($RSRZ > 2$). 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: 16S Ribosomal RNA

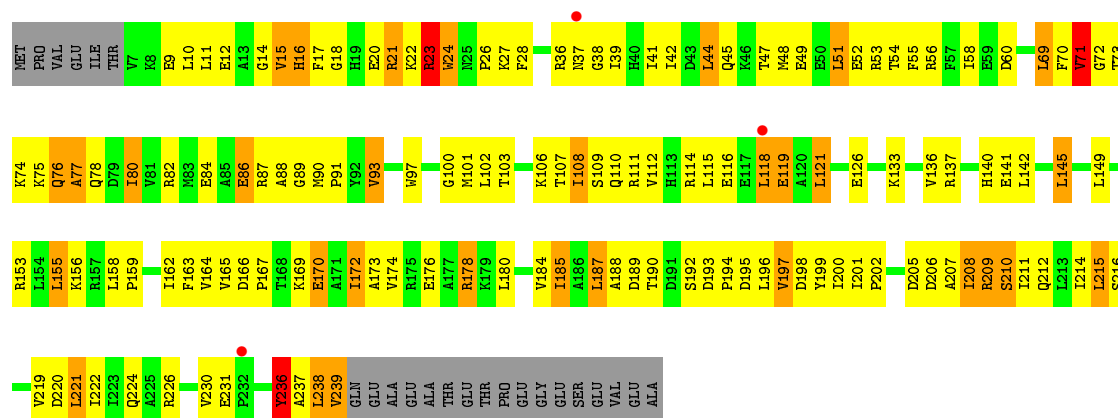




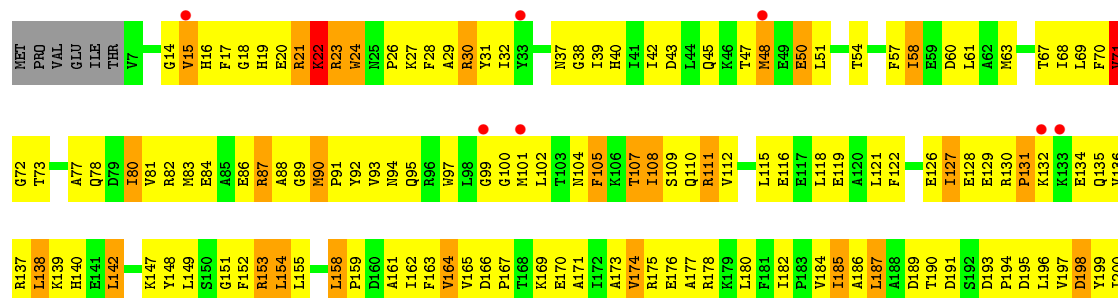


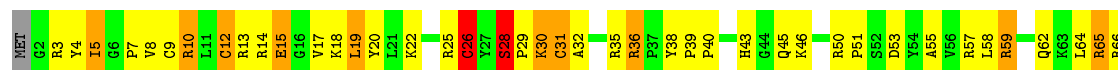


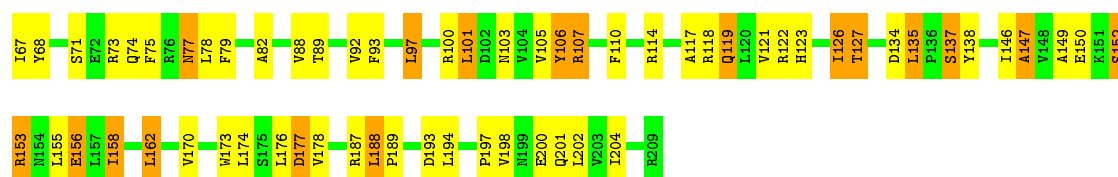
• Molecule 2: 30S Ribosomal Protein S2



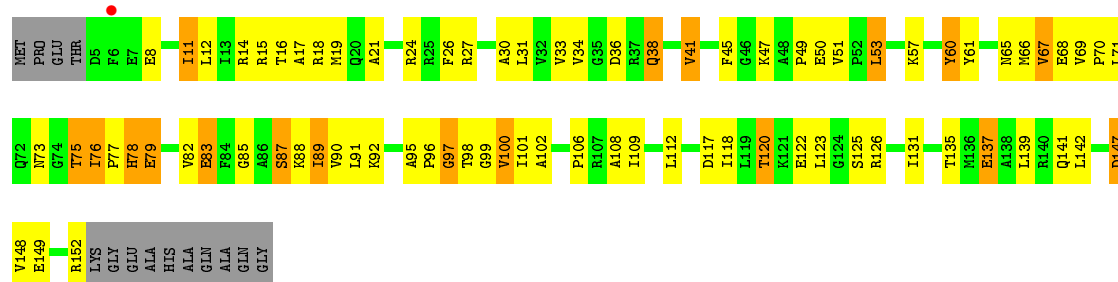
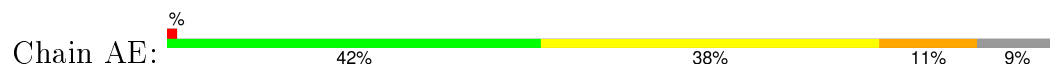
• Molecule 2: 30S Ribosomal Protein S2



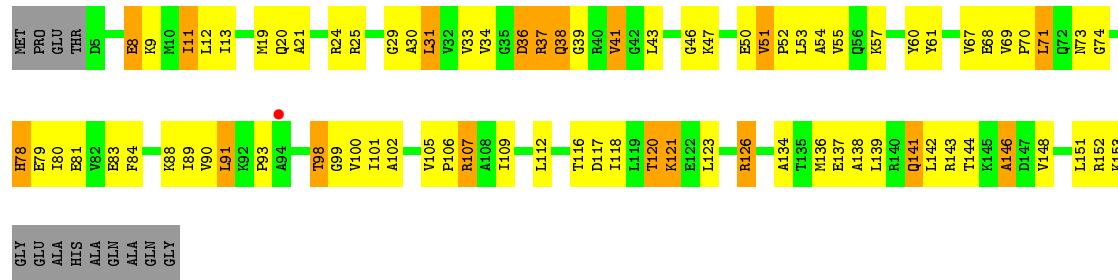




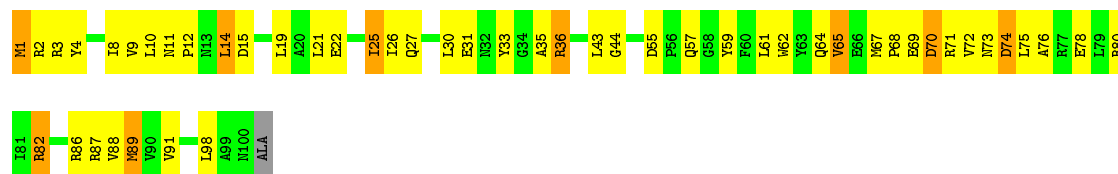
• Molecule 5: 30S Ribosomal Protein S5



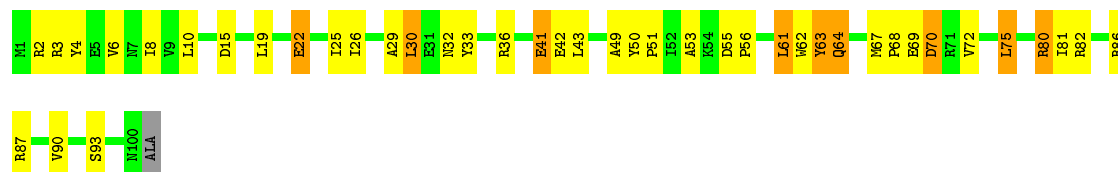
• Molecule 5: 30S Ribosomal Protein S5



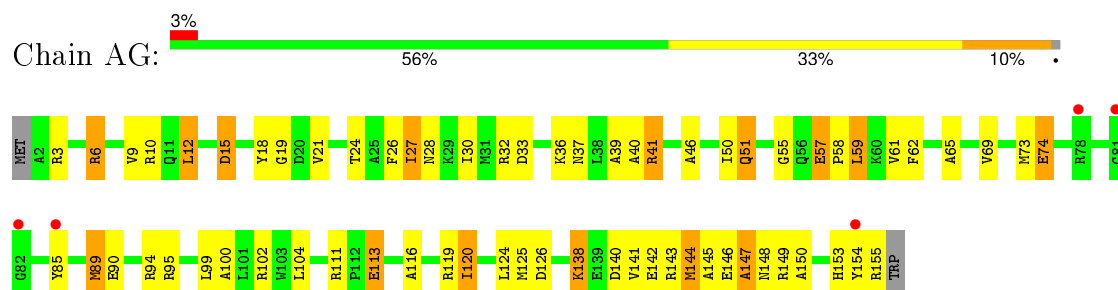
• Molecule 6: 30S Ribosomal Protein S6



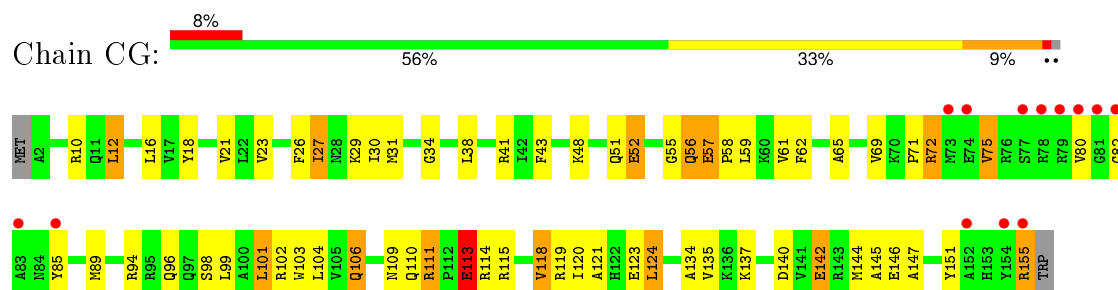
• Molecule 6: 30S Ribosomal Protein S6



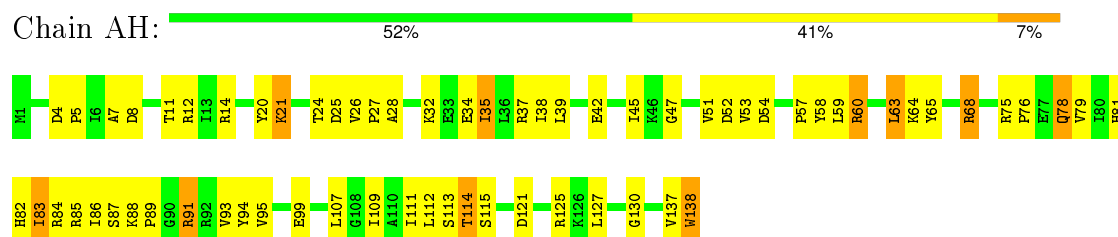
- Molecule 7: 30S Ribosomal Protein S7



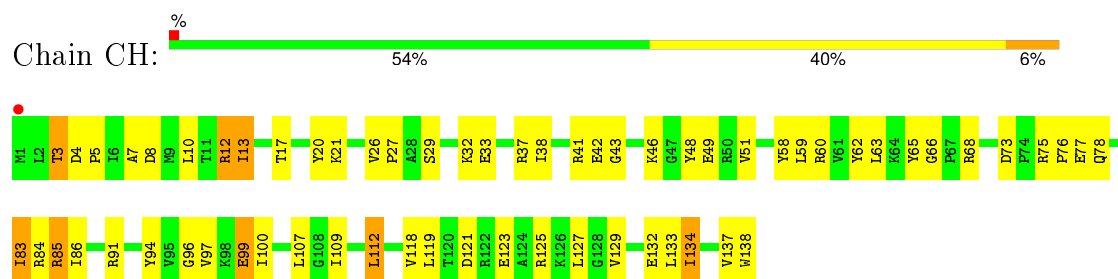
- Molecule 7: 30S Ribosomal Protein S7



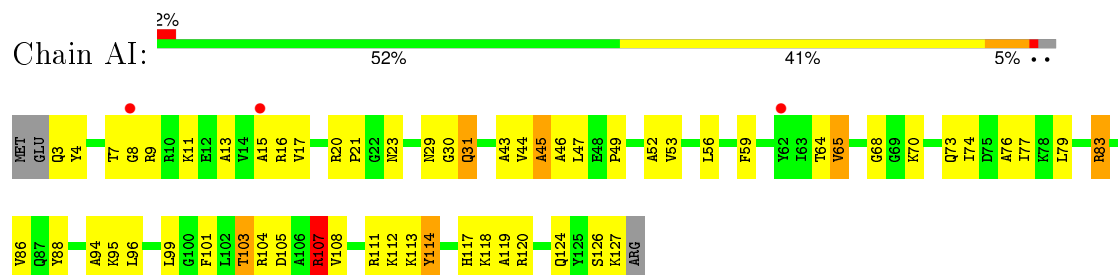
- Molecule 8: 30S Ribosomal Protein S8



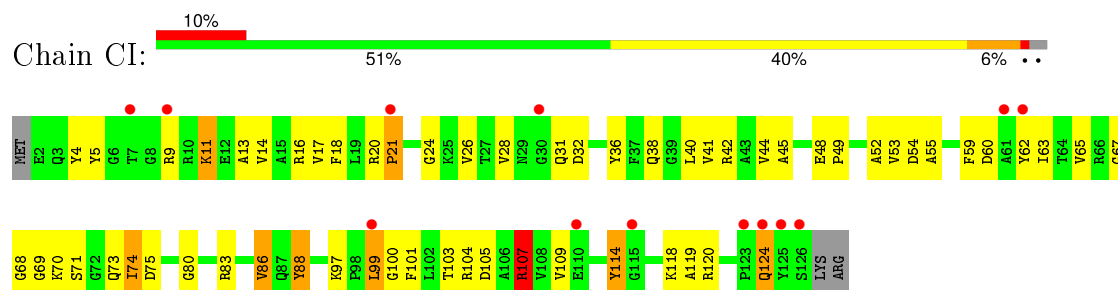
- Molecule 8: 30S Ribosomal Protein S8



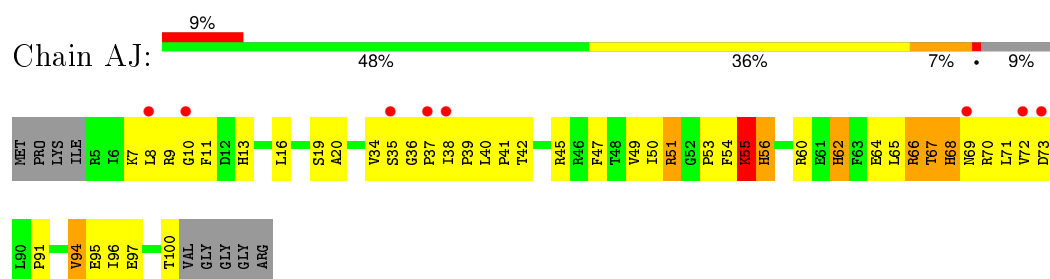
- Molecule 9: 30S Ribosomal Protein S9



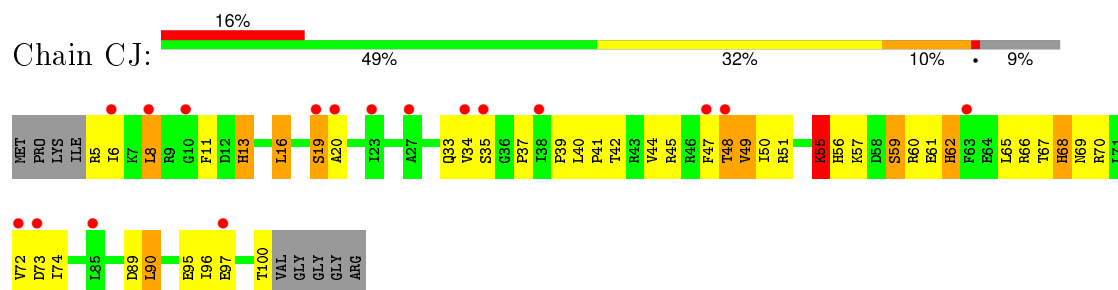
- Molecule 9: 30S Ribosomal Protein S9



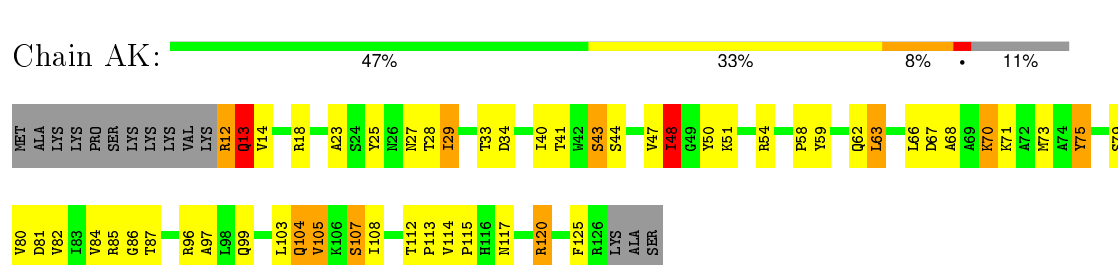
- Molecule 10: 30S Ribosomal Protein S10



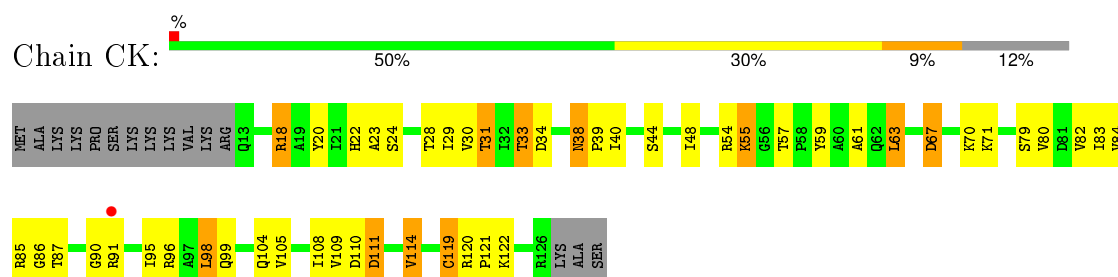
- Molecule 10: 30S Ribosomal Protein S10



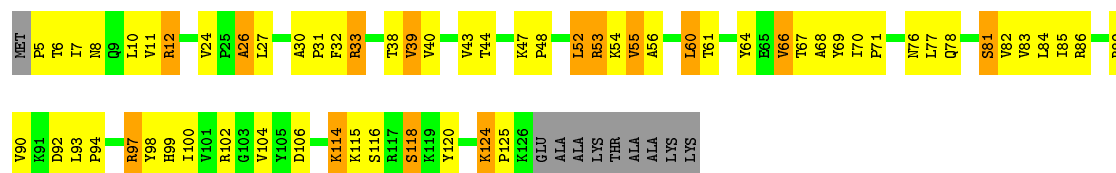
- Molecule 11: 30S Ribosomal Protein S11



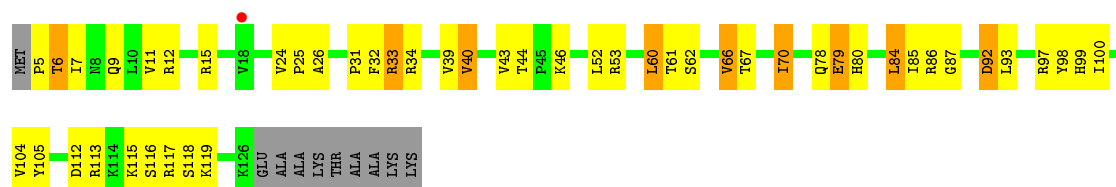
- Molecule 11: 30S Ribosomal Protein S11



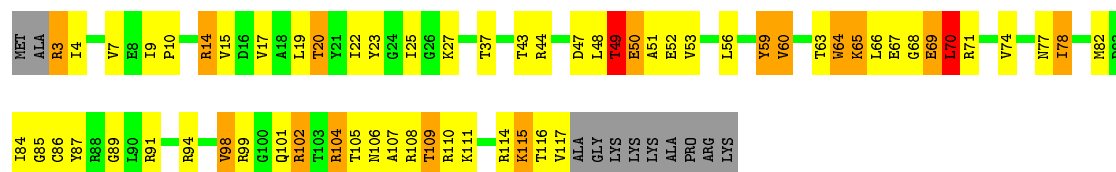
- Molecule 12: 30S Ribosomal Protein S12

Chain AL: 

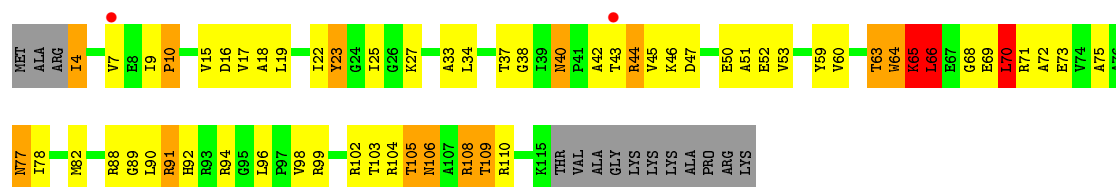
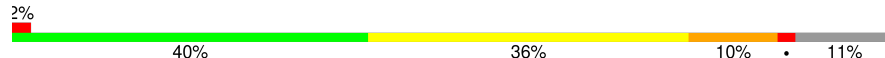
- Molecule 12: 30S Ribosomal Protein S12

Chain CL: 

- Molecule 13: 30S Ribosomal Protein S13

Chain AM: 

- Molecule 13: 30S Ribosomal Protein S13

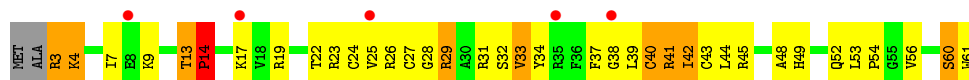
Chain CM: 

- Molecule 14: 30S Ribosomal Protein S14

Chain AN: 

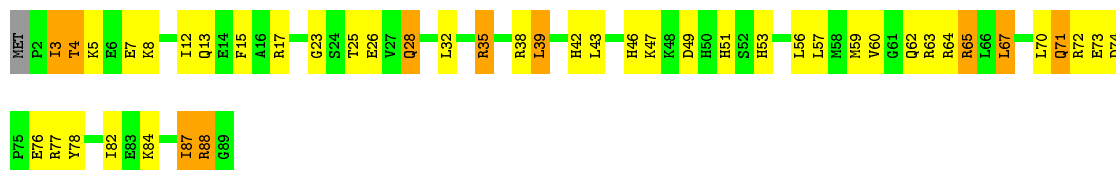
- Molecule 14: 30S Ribosomal Protein S14

Chain CN: 



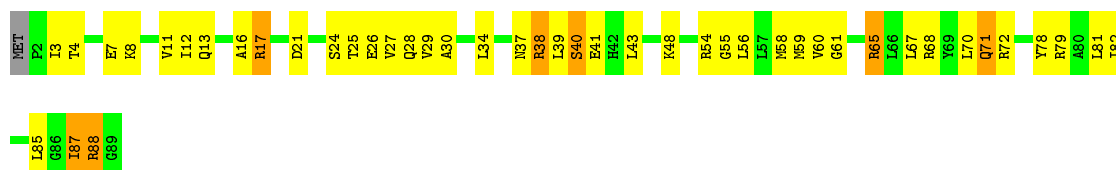
• Molecule 15: 30S Ribosomal Protein S15

Chain AO: 48% 39% 11%



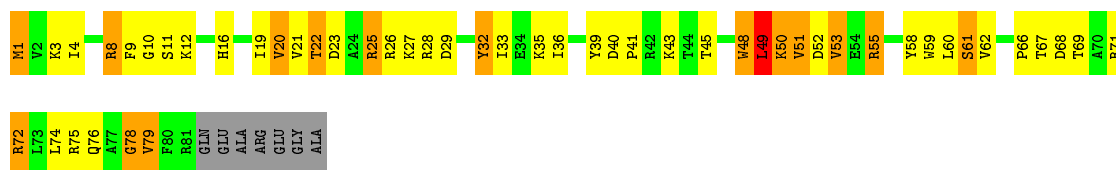
• Molecule 15: 30S Ribosomal Protein S15

Chain CO: 48% 43% 8%



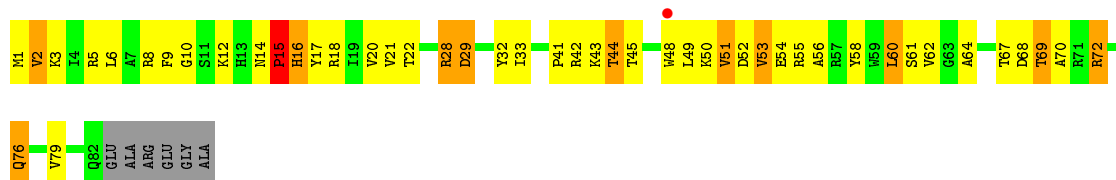
• Molecule 16: 30S Ribosomal Protein S16

Chain AP: 34% 40% 17% 8%



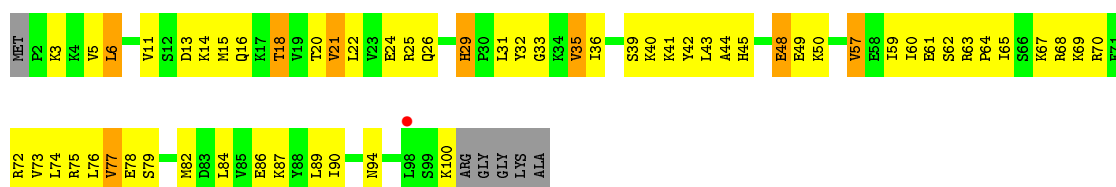
• Molecule 16: 30S Ribosomal Protein S16

Chain CP: 40% 40% 13% 7%

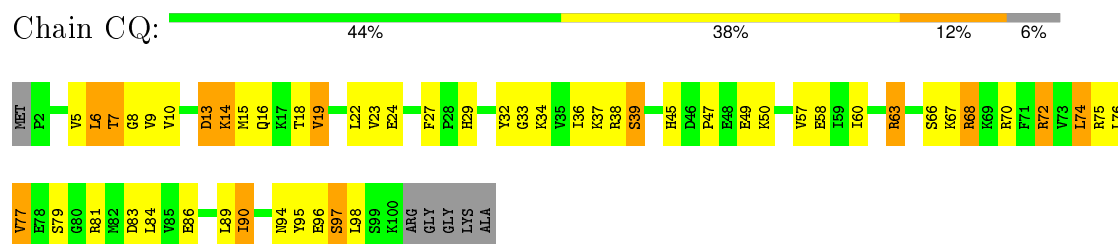


• Molecule 17: 30S Ribosomal Protein S17

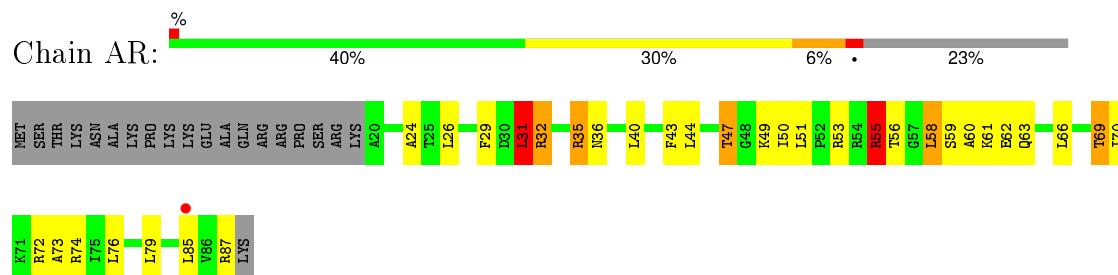
Chain AQ: 38% 49% 8% 6%



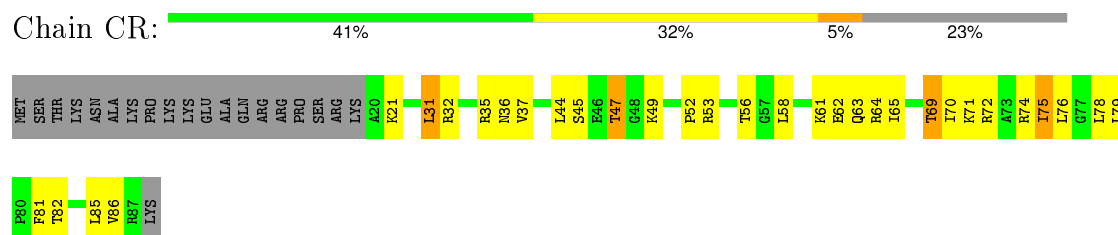
- Molecule 17: 30S Ribosomal Protein S17



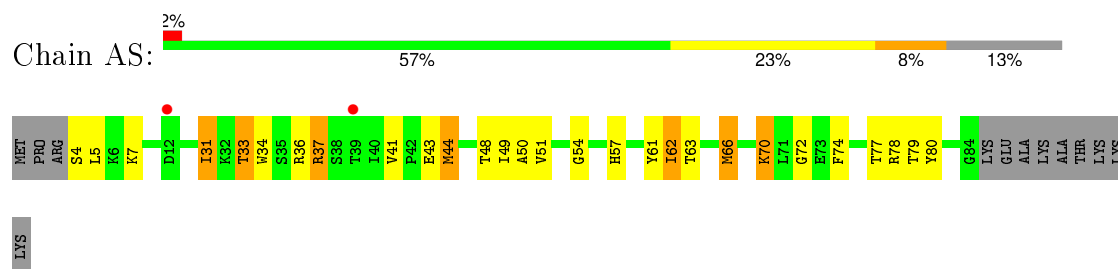
- Molecule 18: 30S Ribosomal Protein S18



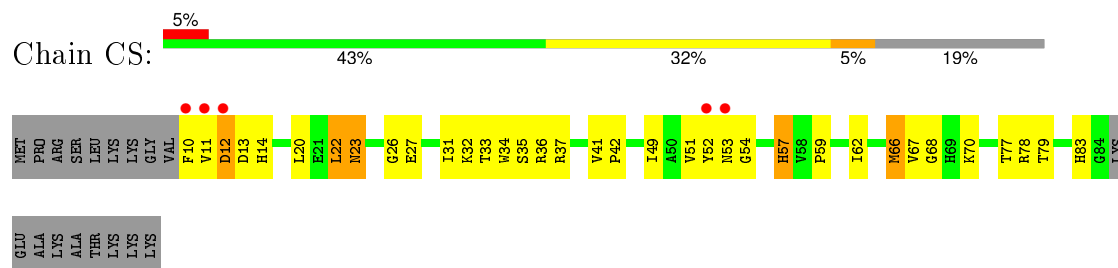
- Molecule 18: 30S Ribosomal Protein S18



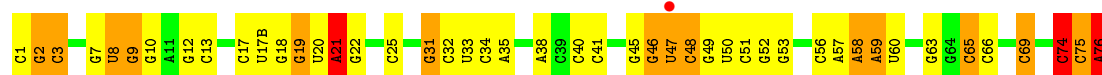
- Molecule 19: 30S Ribosomal Protein S19



- Molecule 19: 30S Ribosomal Protein S19



- Molecule 20: 30S Ribosomal Protein S20



- Molecule 23: P-site fMet-tRNA



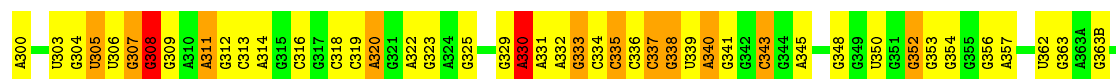
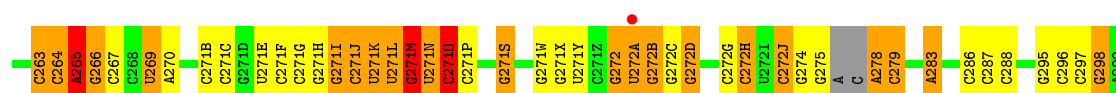
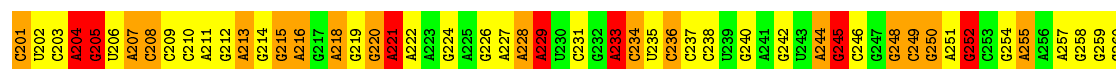
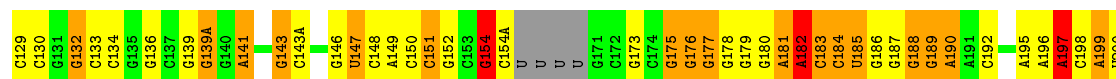
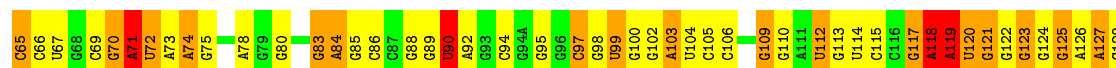
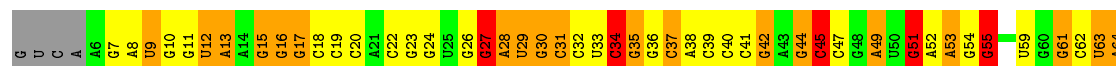
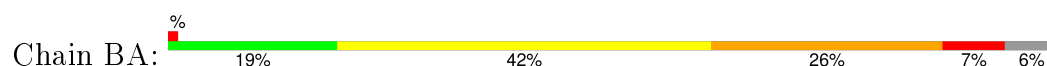
- Molecule 24: mRNA



- Molecule 24: mRNA

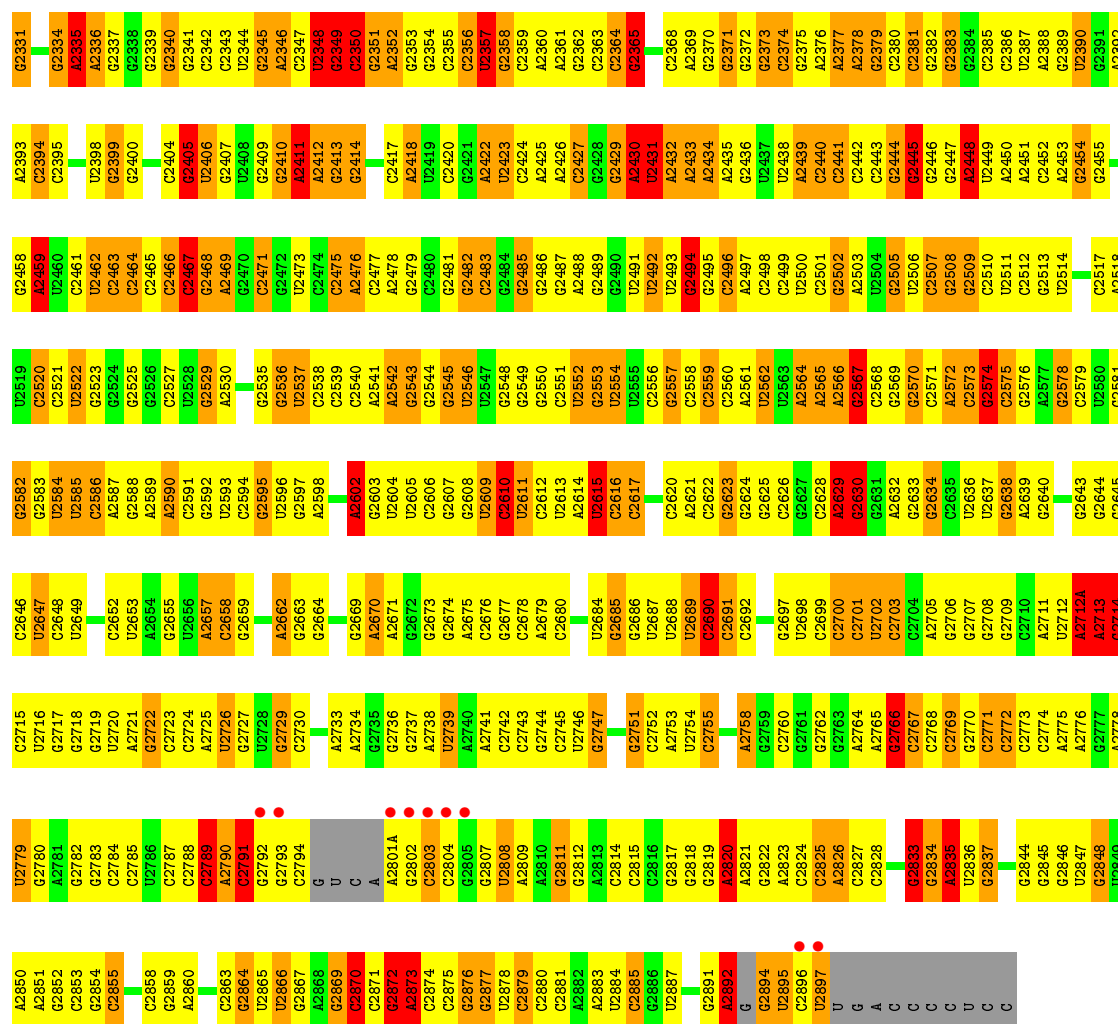


- Molecule 25: 23S Ribosomal RNA

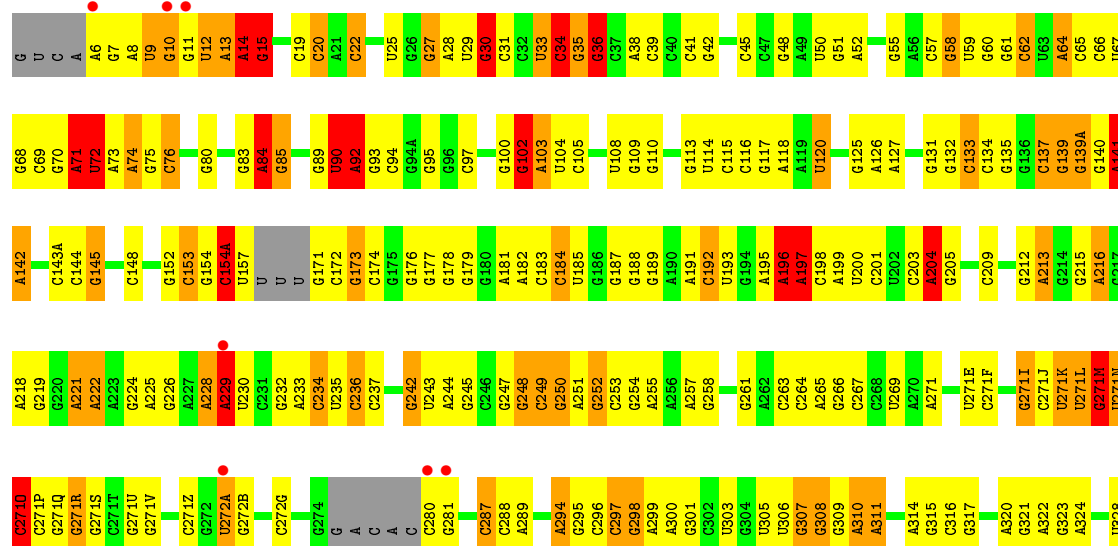




G2270	U2197	G	U2076	A2015	C1887	A1812	C1751	C1598	U	A1470	G1404	G1343
G2271	A2198	C	A2077	U2016	G1888	G1813	C1752	C1599	A	A1471	U1405	G1344
A2272	C2200	C	U2078	U2017	A1889	G1814	G1753	C1600	C	A1472	U1406	G1345
C2273	C2201	C	U2079	G2018	G1890	A1815	G1754	C1601	C	G1473	C1407	G1346
C2274	C2202	G	C2081	A2019	C1893	G1816	A1755	U1602	G1538		C1408	G1347
C2275	C2203	C	A2082	A2020	G1959	G1817	G1756	A1603	G1539		C1409	G1348
U2203	C2204	C	C2082	C2021	A1860	U1818	U1757	C1604	U1540		U1410	A1349
C2205	C2205	U	C2083	U2022	G1896	A1819	G1758	C1605	G1541			C1350
G2206	G2206	C	G2084	G2023	G1897	U1820	A1759	G1606	A1542		U1415	C1351
C2207	C2207	C	U2085	U2024	U1963	G1823	C1761	C1607	A1543		G1416	U1352
A2208	C2208	C	U2086	C2025	G1964	A1824	A1762	A1608	G1544		G1417	A1353
G2219	C2209	G	C2087	G2026	C1965	A1825	G1763	U1671	A1545		G1418	A1354
C2221	C2210	G	G2088	G2027	A1901	A1826	G1764	A1610	C1546		A1419	G1355
G2222	U2089	G	U2089	U2028	C1902	G1826	G1765	C1611	C1547		U1420	
C2223	G2090	U	G2090	G2029	G1903	C1827	C1766	G1674	C1548		G1421	G1358
C2224	U2091	C	U2091	A2030	G1904	G1828	U1766	C1612	A1486		G1422	A1359
A2225	G2092	G	U2092	C2031	A1905	A1829	C1767	G1613	C1487		G1423	A1360
C2226	C2093	G	C2032	G2032	C1906	A1830	U1768	A1614	U1488		G1424	A1361
A2227	A2033	G	A2033	A2033	G1907	C1831	G1769	U1621	U1489		G1425	C1362
G2228	G2095	G	C2095	U2034	C1908	G1832	G1770	G1623	A1490		G1426	C1363
C2229	U2096	G	U2096	U2035	C1913	C1833	C1771	G1624	G1491		A1427	G1364
G2230	C2097	A	U2097	G2036	A1914	U1834	G1772	C1625	G1492		G1428	A1365
C2231	C2037	G	C2037	G2037	C1915	G1835	A1773	G1626	C1493		G1429	A1366
C2232	G2098	G	U2098	C2038	U1915	C1836	C1774	G1627	A1494		G1430	A1367
U2233	C2039	C	G2100	C2039	A1916	C1837	U1775	U1622	A1495		U1431	G1368
G2234	G2040	C	G2101	G2040	U1917	C1838	G1776	G1623	U1497			G1369
A2241	U2041	A	U2041	U2041	G1980	G1839	U1777	G1624	C1498		A1434	C1370
U2242	A2042	A	C2097	A2042	A1918	U1840	U1778	C1625	C1499		G1371	A1370
U2243	C2050	C	U2098	C2050	C1981	A1847	U1779	G1626	G1500		G1436	A1372
U2244	A2051	U	C	A2051	C1982	A1848	C1780	G1627	C1501		C1437	A1373
U2245	G2052	A	U	G2052	U1991	G1849	A1786	G1628	A1507		U1438	G1374
G2246	C2053	A	U	C2053	G1992	C1850	C1788	U1629	C1502		A1439	C1375
A2247	A2054	C	A	A2054	U1993	A1854	A1789	C1630	C1503		G1440	C1376
C2248	C2055	C	G	C2055	C1994	G1855	C1790	C1631	C1505		G1441	G1377
U2249	G2056	A	G	G2056	U1995	G1856	A1791	A1632	A1506		G1442	A1378
C2250	A2057	C	A	A2057	C1996	G1857	G1792	C1633	A1507		G1443	A1379
G2251	C2058	C	U	C2058	G1997	G1858	C1793	U1639	A1508		G1444	G1380
G2252	A2059	U	G	A2059	C1998	A1859	U1794	C1640	C1509		A1445	G1383
C2253	G2060	G	U	G2060	A1936	G1862	C1795	A1641	A1509A		C1445A	G1382
C2254	G2061	G	U	G2061	A1937	G1862	U1796	G1642	A1509B		C1446	A1383
G2255	A2062	C	U	A2062	C1938	G1863	C1797	C1711	G1510		G1447	A1384
C2256	C2063	G	G	C2063	U1939	U1864	U1798	G1647	C1511		G1448	G1385
U2257	G2064	G	G	G2064	G2003	G1865	G1799	G1649	C1512		A1449	C1386
C2258	C2065	A	G	C2065	C1941	C1866	C1800	G1650	U1513		G1450	G1387
G2259	G2066	C	U	G2066	C1942	A1876	G1801	G1651	A1514		C1450A	G1388
C2260	C2067	G	G	C2067	C2006	A1877	A1802	C1652	G1515		U1453	G1389
U2261	U2068	C	C	U2068	G1945	C1877	A1802	G1648	U1518		G1455	U1391
C2262	G2069	C	C	G2069	U1946	C1878	A1803	G1649	G1519		G1456	A1392
G2263	C2070	U	U	C2070	C2007	C1879	C1804	G1650	G1520		A1457	A1393
U2264	G2071	G	U	G2071	C2009	G1880	U1805	G1651	U1523		C1458	U1394
C2265	U2071	C	U	U2071	G1948	C1881	C1806	A1654	G1524		G1459	A1395
G2266	G2072	U	U	G2072	U2011	G1883	G1807	C1655	A1525		A1460	U1396
A2267	C2073	G	G	A2267	C2012	A1884	C1807	C1656	G1526		G1461	U1397
C2268	U2074	A	A	U2074	A2013	A1885	A1810	C1657	G1527		C1464	C1398
A2269	U2075	A	A	U2075	A1952	C1886	G1811	U1659	G		G1465	G1400

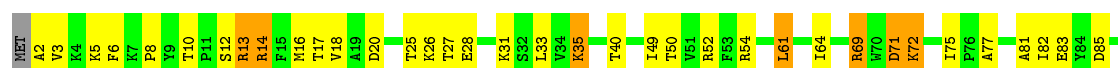


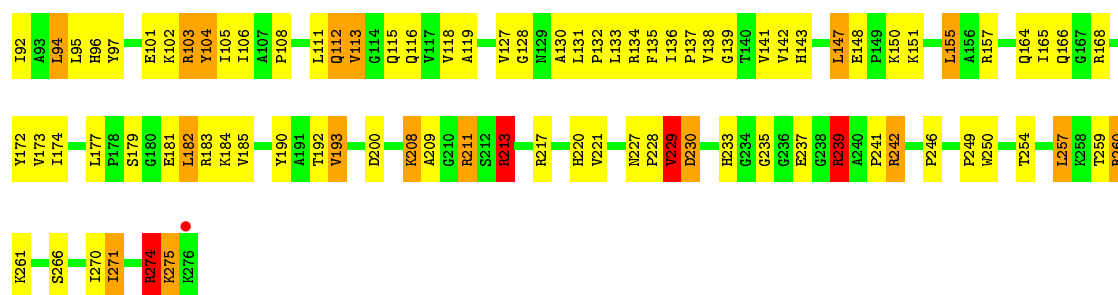
● Molecule 25: 23S Ribosomal RNA



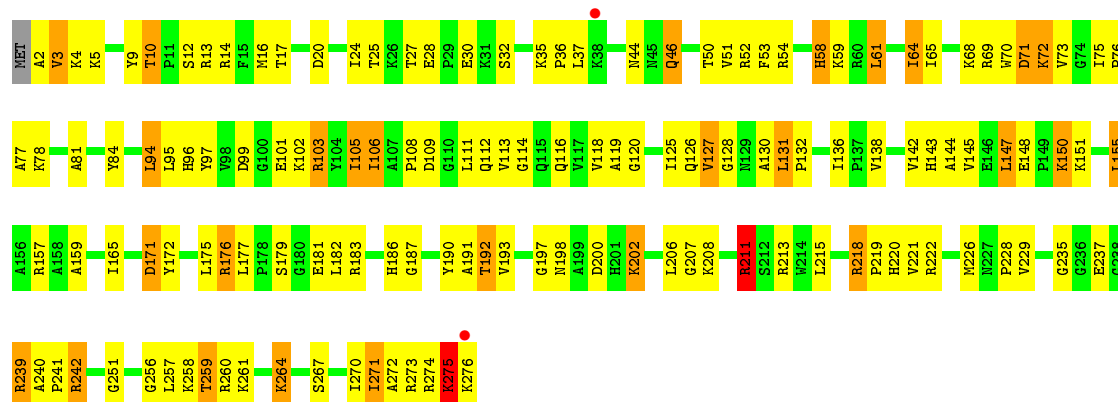




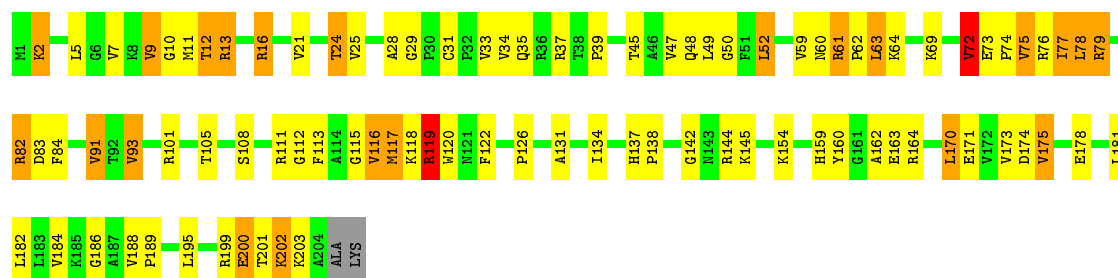




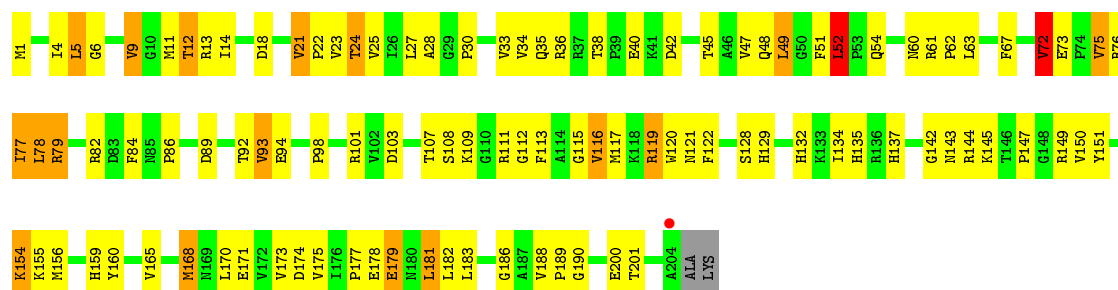
• Molecule 27: 50S Ribosomal Protein L2



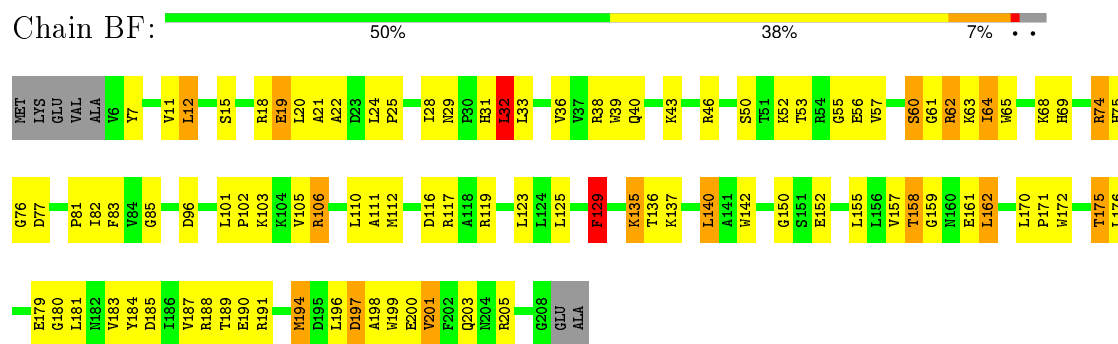
• Molecule 28: 50S Ribosomal Protein L3



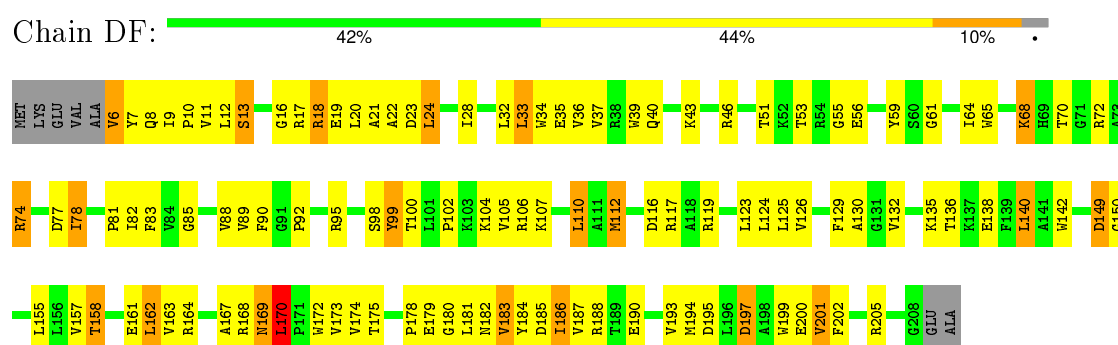
• Molecule 28: 50S Ribosomal Protein L3



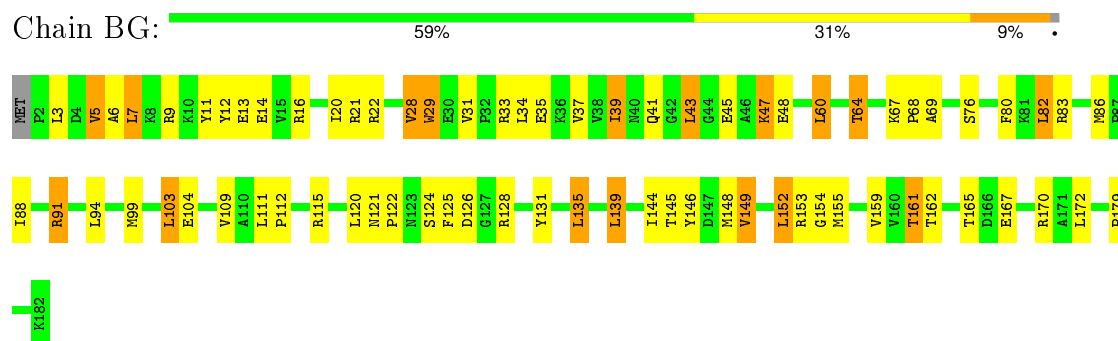
- Molecule 29: 50S Ribosomal Protein L4



- Molecule 29: 50S Ribosomal Protein L4



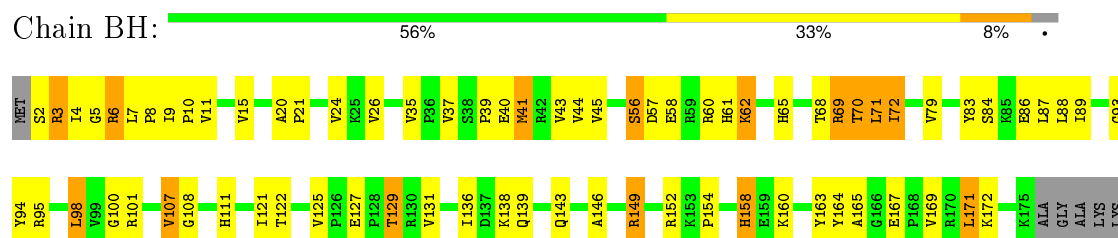
- Molecule 30: 50S Ribosomal Protein L5



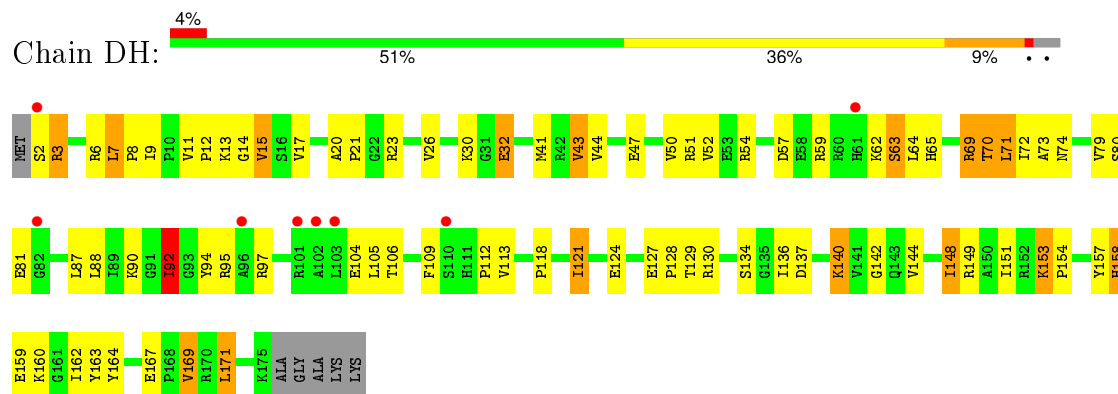
- Molecule 30: 50S Ribosomal Protein L5



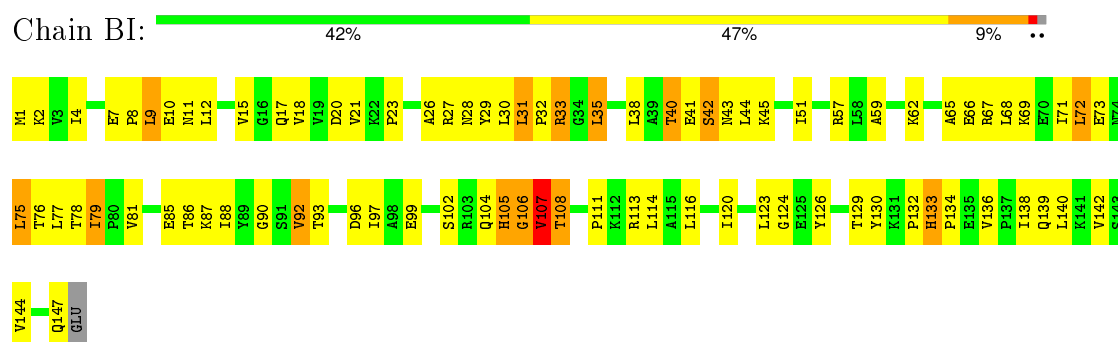
- Molecule 31: 50S Ribosomal Protein L6



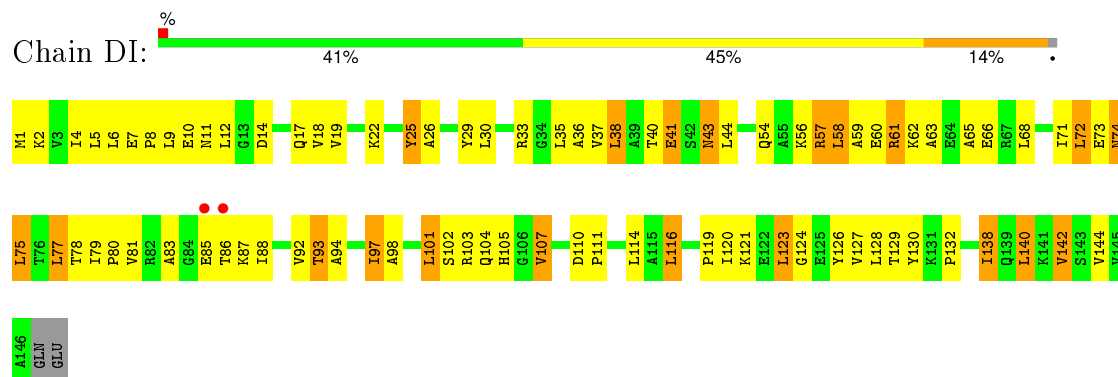
- Molecule 31: 50S Ribosomal Protein L6



- Molecule 32: 50S Ribosomal Protein L9

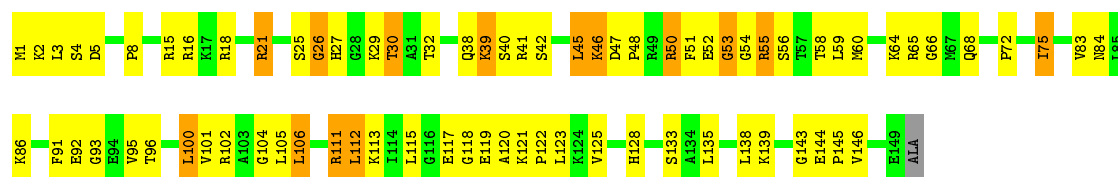


- Molecule 32: 50S Ribosomal Protein L9

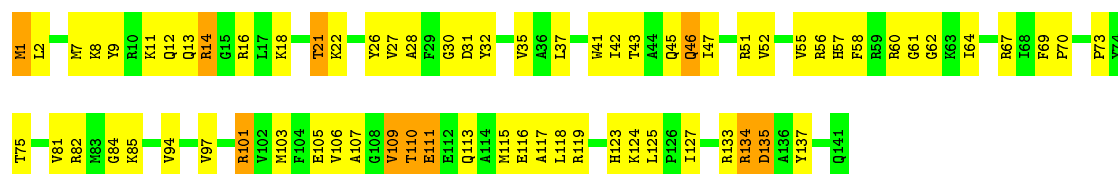


- Molecule 33: 50S Ribosomal Protein L13

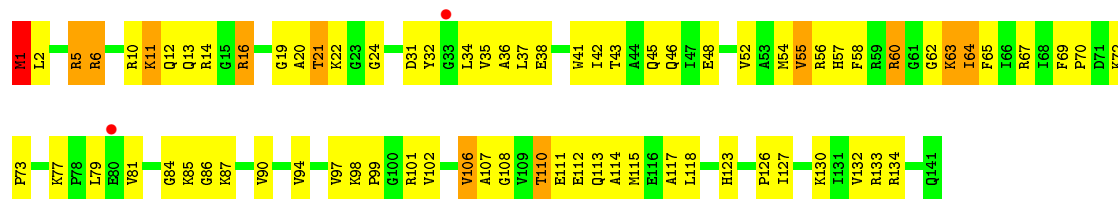




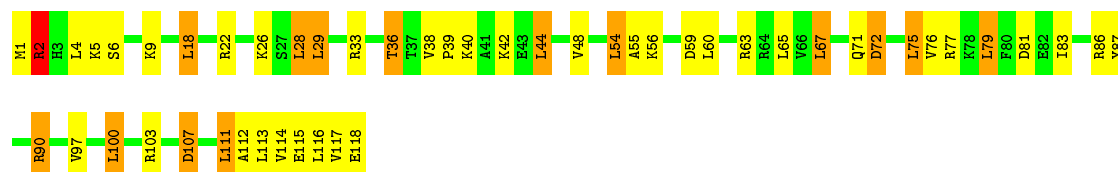
• Molecule 36: 50S Ribosomal Protein L16



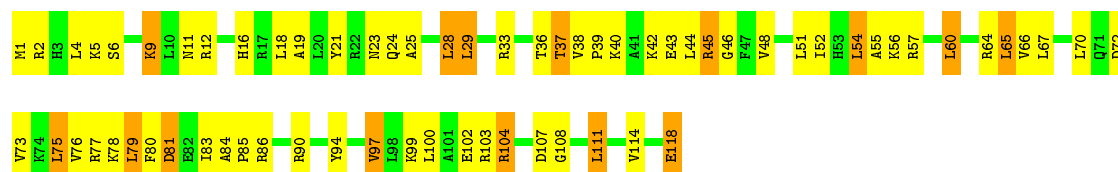
• Molecule 36: 50S Ribosomal Protein L16



• Molecule 37: 50S Ribosomal Protein L17

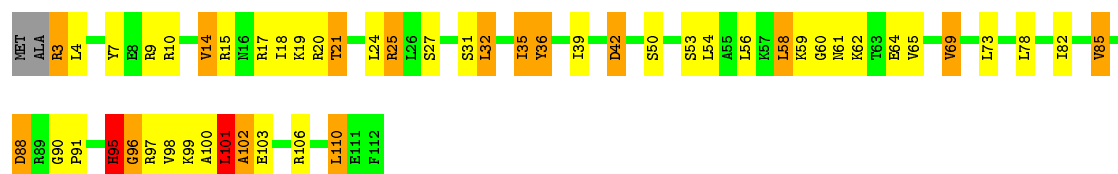


• Molecule 37: 50S Ribosomal Protein L17



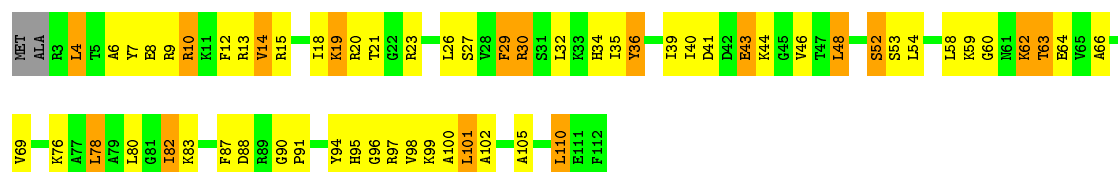
• Molecule 38: 50S Ribosomal Protein L18





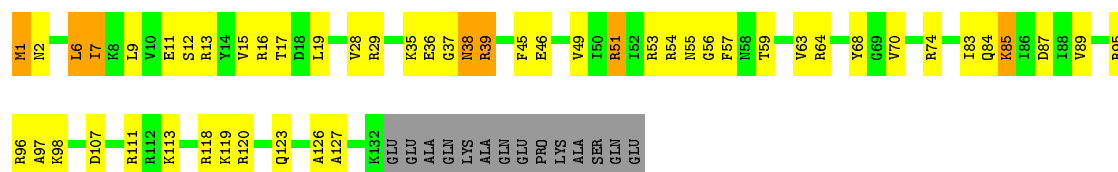
• Molecule 38: 50S Ribosomal Protein L18

Chain DS: 44% 40% 14%



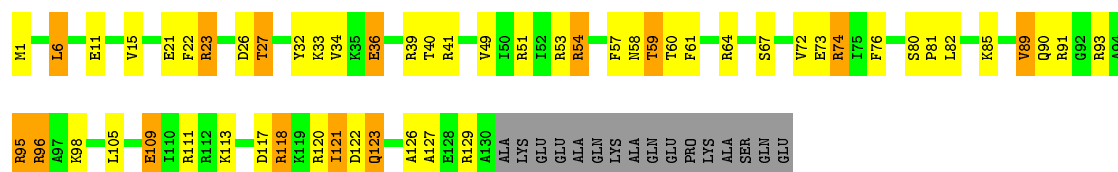
• Molecule 39: 50S Ribosomal Protein L19

Chain BT: 55% 31% 5% 10%



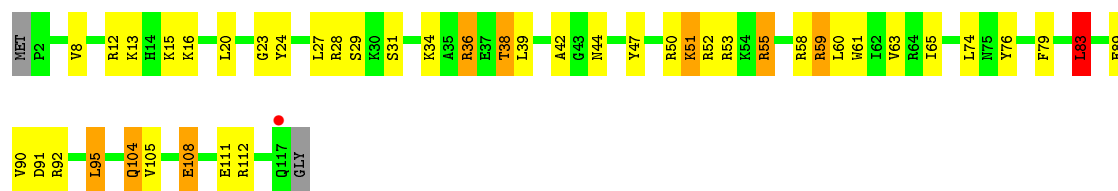
• Molecule 39: 50S Ribosomal Protein L19

Chain DT: 51% 28% 10% 11%



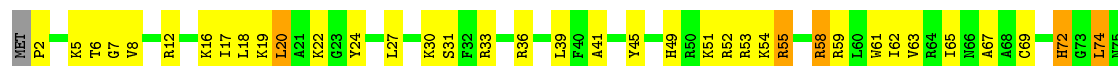
• Molecule 40: 50S Ribosomal Protein L20

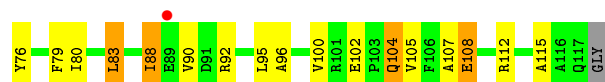
Chain BU: 61% 30% 7%



• Molecule 40: 50S Ribosomal Protein L20

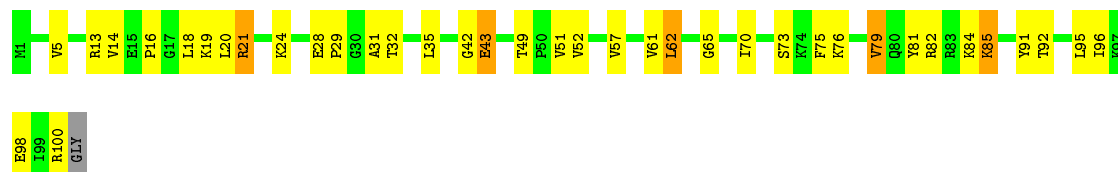
Chain DU: 53% 38% 8%





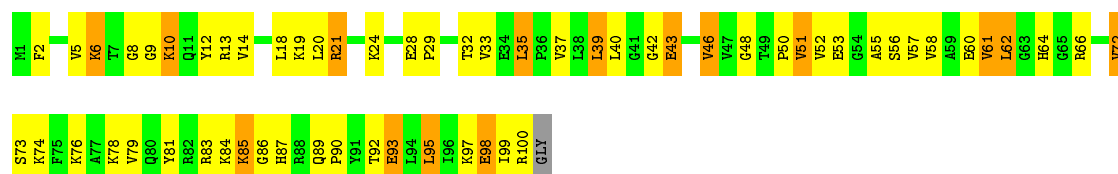
• Molecule 41: 50S Ribosomal Protein L21

Chain BV: 61% 33% 5% •



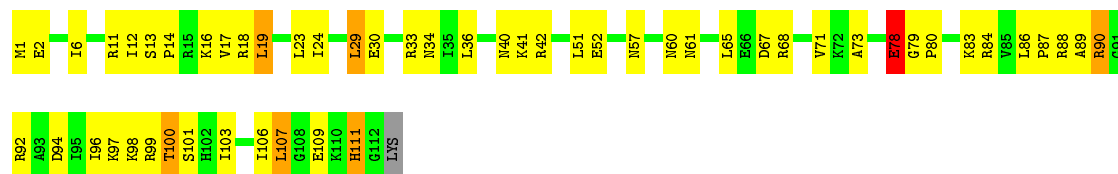
• Molecule 41: 50S Ribosomal Protein L21

Chain DV: 40% 45% 15% •



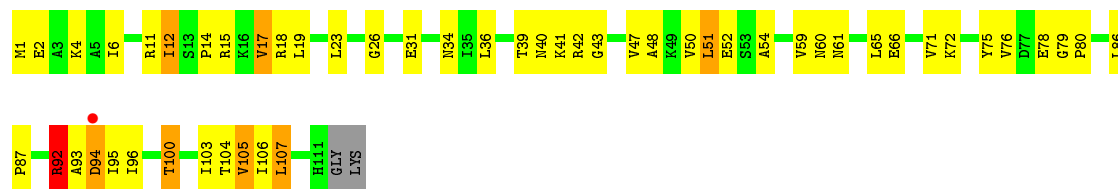
• Molecule 42: 50S Ribosomal Protein L22

Chain BW: 51% 42% 5% ••



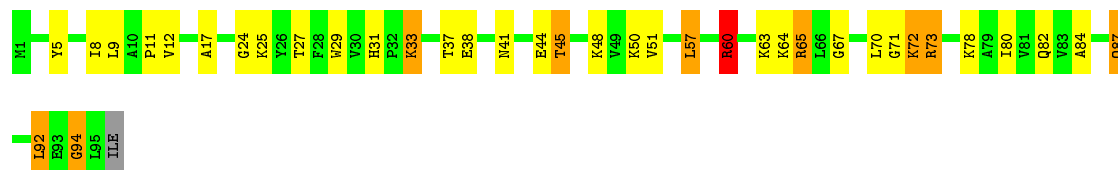
• Molecule 42: 50S Ribosomal Protein L22

Chain DW: 52% 39% 6% ••



• Molecule 43: 50S Ribosomal Protein L23

Chain BX: 60% 28% 9% ••



- Molecule 43: 50S Ribosomal Protein L23

Chain DX: 



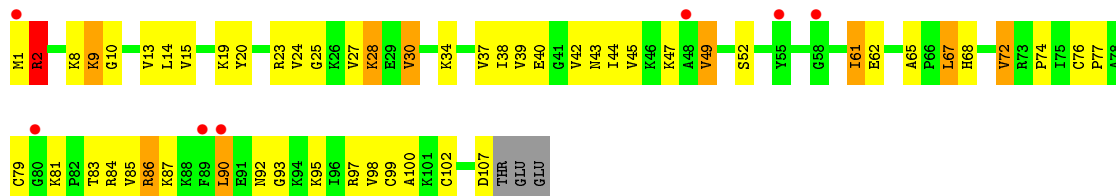
- Molecule 44: 50S Ribosomal Protein L24

Chain BY: 



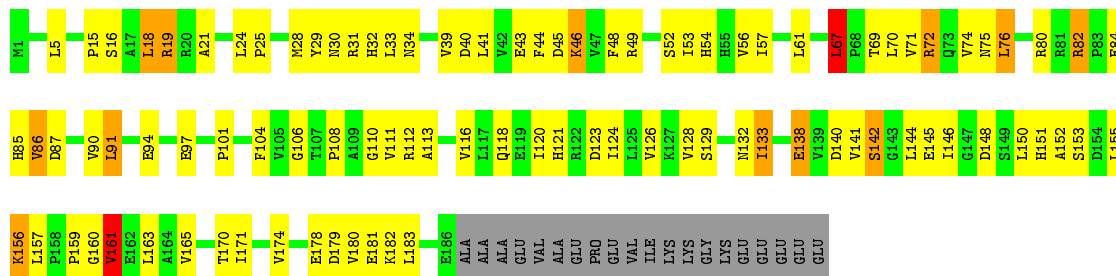
- Molecule 44: 50S Ribosomal Protein L24

Chain DY: 



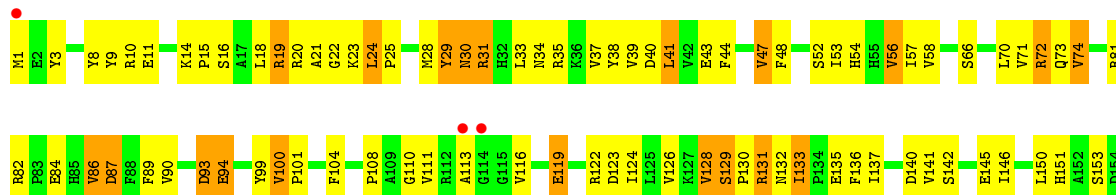
- Molecule 45: 50S Ribosomal Protein L25

Chain BZ: 

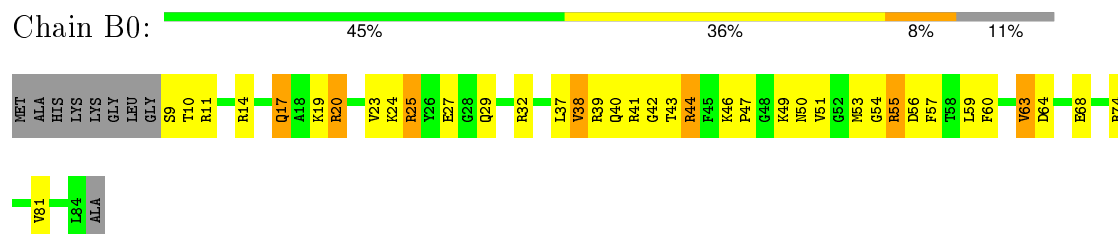


- Molecule 45: 50S Ribosomal Protein L25

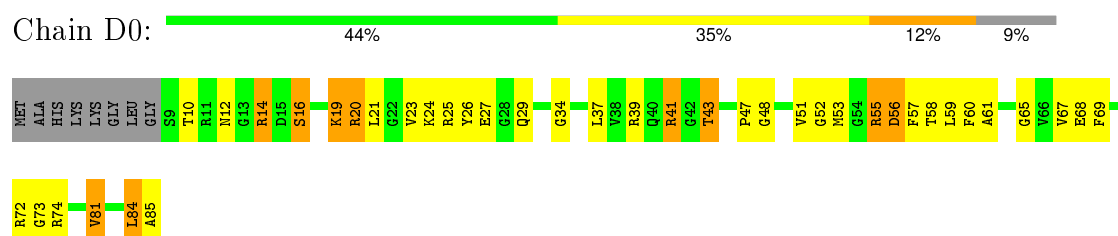
Chain DZ: 



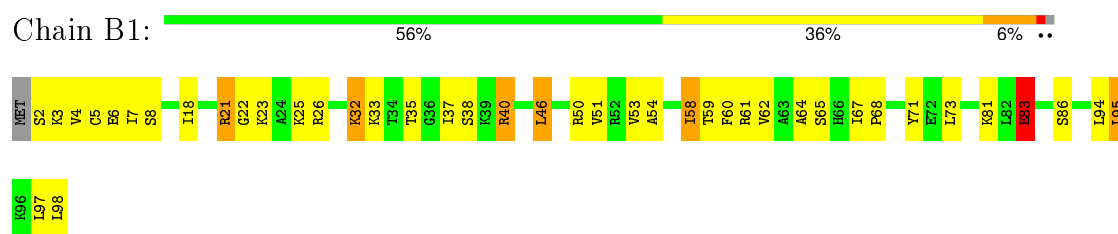
- Molecule 46: 50S Ribosomal Protein L27



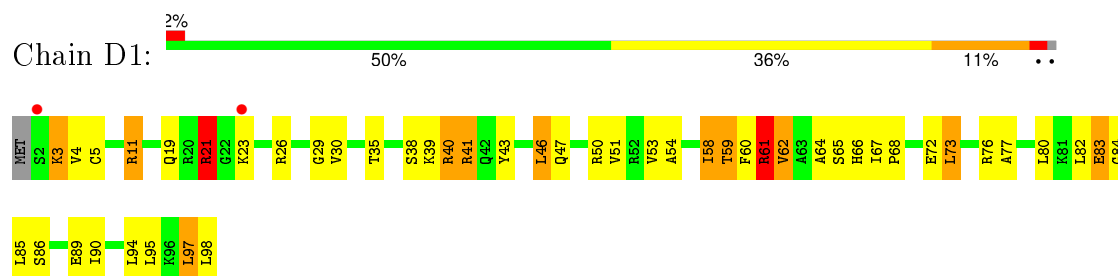
- Molecule 46: 50S Ribosomal Protein L27



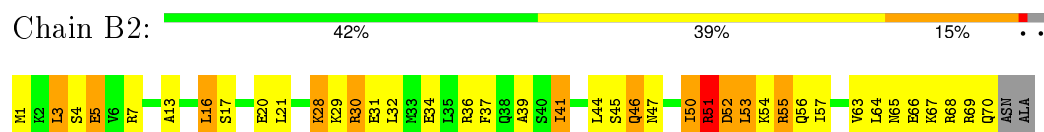
- Molecule 47: 50S Ribosomal Protein L28



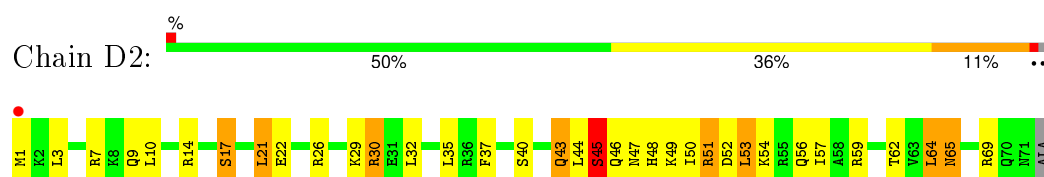
- Molecule 47: 50S Ribosomal Protein L28



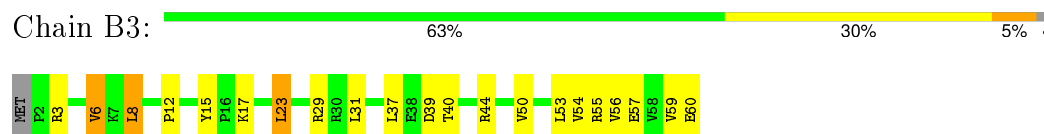
- Molecule 48: 50S Ribosomal Protein L29



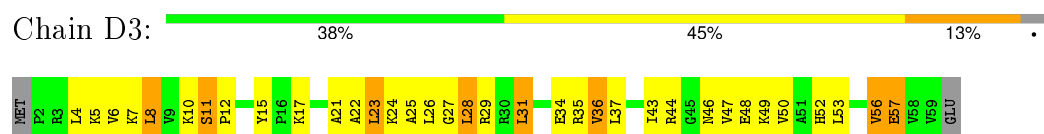
- Molecule 48: 50S Ribosomal Protein L29



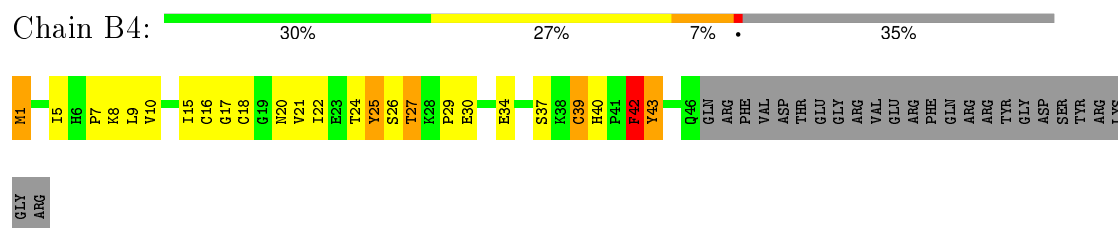
- Molecule 49: 50S Ribosomal Protein L30



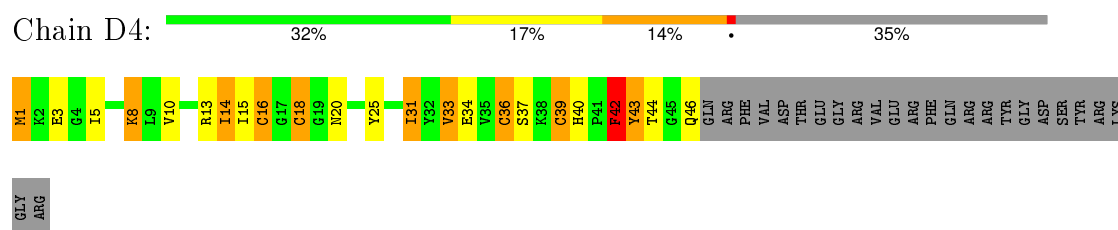
- Molecule 49: 50S Ribosomal Protein L30



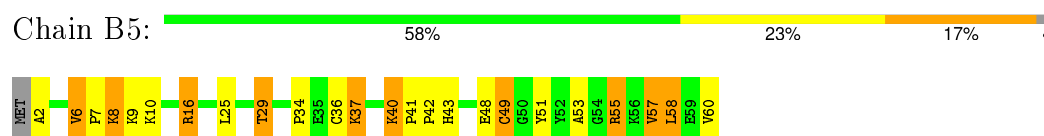
- Molecule 50: 50S Ribosomal Protein L31



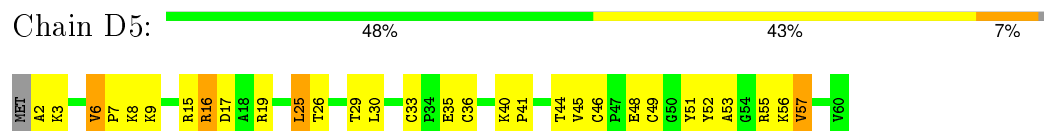
- Molecule 50: 50S Ribosomal Protein L31



- Molecule 51: 50S Ribosomal Protein L32



- Molecule 51: 50S Ribosomal Protein L32



- Molecule 52: 50S Ribosomal Protein L33

Chain B6: 



- Molecule 52: 50S Ribosomal Protein L33

Chain D6: 



- Molecule 53: 50S Ribosomal Protein L34

Chain B7: 



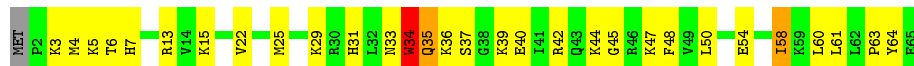
- Molecule 53: 50S Ribosomal Protein L34

Chain D7: 



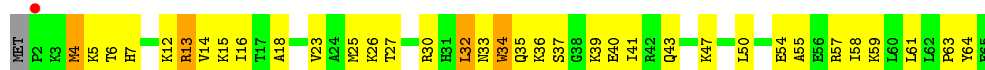
- Molecule 54: 50S Ribosomal Protein L35

Chain B8: 



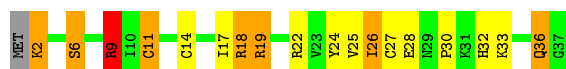
- Molecule 54: 50S Ribosomal Protein L35

Chain D8: 




- Molecule 55: 50S Ribosomal Protein L36

Chain B9: 



- Molecule 55: 50S Ribosomal Protein L36

Chain D9: 



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	209.96 Å 448.86 Å 624.20 Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	34.91 – 3.20 34.91 – 3.20	Depositor EDS
% Data completeness (in resolution range)	99.8 (34.91-3.20) 99.8 (34.91-3.20)	Depositor EDS
R_{merge}	0.28	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.32 (at 3.18 Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.7.3_928)	Depositor
R, R_{free}	0.188 , 0.245 0.185 , 0.243	Depositor DCC
R_{free} test set	48022 reflections (5.02%)	DCC
Wilson B-factor (Å ²)	73.8	Xtriage
Anisotropy	0.161	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.27 , 75.2	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning ²	$\langle L \rangle = 0.45$, $\langle L^2 \rangle = 0.28$	Xtriage
Outliers	0 of 956750 reflections	Xtriage
F_o, F_c correlation	0.94	EDS
Total number of atoms	284877	wwPDB-VP
Average B, all atoms (Å ²)	80.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.56% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.375 respectively for untwinned datasets, and 0.333, 0.2 for perfectly twinned datasets.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	AA	0.97	30/35273 (0.1%)	1.68	779/55046 (1.4%)
1	CA	0.89	15/35152 (0.0%)	1.51	525/54858 (1.0%)
2	AB	0.67	3/1844 (0.2%)	0.87	1/2498 (0.0%)
2	CB	0.55	0/1852	0.79	1/2510 (0.0%)
3	AC	0.56	0/1458	0.84	0/1981
3	CC	0.53	0/1477	0.75	0/2006
4	AD	0.66	2/1550 (0.1%)	0.93	4/2106 (0.2%)
4	CD	0.70	3/1567 (0.2%)	0.95	4/2125 (0.2%)
5	AE	0.64	0/1121	0.90	0/1517
5	CE	0.68	0/1131	0.92	0/1529
6	AF	0.62	0/794	0.86	1/1082 (0.1%)
6	CF	0.60	0/797	0.81	0/1085
7	AG	0.53	0/1169	0.73	0/1580
7	CG	0.53	0/1166	0.77	0/1576
8	AH	0.63	0/1065	0.83	0/1445
8	CH	0.57	0/1069	0.80	0/1450
9	AI	0.60	0/879	0.96	1/1195 (0.1%)
9	CI	0.53	0/864	0.80	1/1177 (0.1%)
10	AJ	0.57	0/672	0.81	0/919
10	CJ	0.55	0/670	0.84	0/917
11	AK	0.70	0/858	0.91	1/1163 (0.1%)
11	CK	0.58	0/843	0.77	0/1144
12	AL	0.70	0/925	0.87	0/1251
12	CL	0.64	0/921	0.88	0/1247
13	AM	0.66	1/824 (0.1%)	0.92	1/1120 (0.1%)
13	CM	0.55	0/794	0.81	1/1081 (0.1%)
14	AN	0.59	0/482	0.86	2/642 (0.3%)
14	CN	0.60	0/478	0.86	0/638
15	AO	0.62	0/735	0.87	1/981 (0.1%)
15	CO	0.59	0/735	0.84	0/981
16	AP	0.60	0/662	0.99	3/898 (0.3%)
16	CP	0.60	0/677	0.91	0/917

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	AQ	0.70	0/836	0.90	0/1117
17	CQ	0.63	0/832	0.84	1/1113 (0.1%)
18	AR	0.64	0/519	0.96	3/699 (0.4%)
18	CR	0.59	0/519	0.79	0/699
19	AS	0.51	0/574	0.83	0/781
19	CS	0.46	0/543	0.73	1/740 (0.1%)
20	AT	0.57	0/716	0.82	0/947
20	CT	0.62	0/776	0.85	0/1026
21	AU	0.66	0/221	0.84	0/288
21	CU	0.60	0/184	0.78	0/244
22	AY	0.78	1/1043 (0.1%)	1.02	5/1399 (0.4%)
23	AV	1.07	3/1836 (0.2%)	1.55	36/2859 (1.3%)
23	CV	0.78	1/1836 (0.1%)	1.29	11/2859 (0.4%)
24	AX	0.94	0/147	1.18	0/227
24	CX	0.85	0/147	1.11	0/227
25	BA	1.52	551/66391 (0.8%)	2.06	3990/103628 (3.9%)
25	DA	1.06	69/65653 (0.1%)	1.63	1707/102473 (1.7%)
26	BB	1.26	6/2878 (0.2%)	1.93	156/4490 (3.5%)
26	DB	0.88	1/2878 (0.0%)	1.42	35/4490 (0.8%)
27	BD	1.02	3/2181 (0.1%)	1.14	8/2940 (0.3%)
27	DD	0.83	3/2186 (0.1%)	0.98	2/2944 (0.1%)
28	BE	0.96	0/1588	1.09	4/2145 (0.2%)
28	DE	0.72	0/1588	0.90	1/2145 (0.0%)
29	BF	0.93	0/1609	0.97	2/2177 (0.1%)
29	DF	0.64	0/1611	0.87	2/2180 (0.1%)
30	BG	0.70	1/1393 (0.1%)	0.92	0/1892
30	DG	0.53	0/1385	0.83	1/1881 (0.1%)
31	BH	0.84	0/1343	0.94	0/1820
31	DH	0.53	0/1343	0.76	1/1820 (0.1%)
32	BI	0.63	0/1081	0.92	2/1477 (0.1%)
32	DI	0.59	0/1072	0.85	1/1465 (0.1%)
33	BN	1.00	0/1139	1.10	3/1538 (0.2%)
33	DN	0.63	0/1139	0.83	0/1538
34	BO	0.96	0/933	1.03	2/1257 (0.2%)
34	DO	0.74	0/933	0.93	2/1257 (0.2%)
35	BP	0.89	0/1148	1.09	5/1529 (0.3%)
35	DP	0.65	0/1148	0.91	2/1529 (0.1%)
36	BQ	1.01	0/1143	1.04	4/1527 (0.3%)
36	DQ	0.67	0/1143	0.89	1/1527 (0.1%)
37	BR	0.90	0/982	1.08	3/1312 (0.2%)
37	DR	0.65	0/982	0.90	0/1312
38	BS	0.80	0/875	1.06	3/1168 (0.3%)
38	DS	0.55	0/883	0.87	0/1176

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
39	BT	0.89	0/1086	1.05	1/1455 (0.1%)
39	DT	0.68	0/1072	0.81	0/1437
40	BU	1.10	1/977 (0.1%)	1.09	5/1301 (0.4%)
40	DU	0.70	0/977	0.87	0/1301
41	BV	1.02	0/777	1.10	1/1044 (0.1%)
41	DV	0.67	0/781	0.86	1/1048 (0.1%)
42	BW	1.05	1/901 (0.1%)	1.10	3/1209 (0.2%)
42	DW	0.77	0/887	0.90	2/1192 (0.2%)
43	BX	0.99	0/756	1.06	2/1016 (0.2%)
43	DX	0.75	0/746	0.88	1/1005 (0.1%)
44	BY	0.85	0/798	1.03	2/1073 (0.2%)
44	DY	0.64	0/794	0.87	0/1067
45	BZ	0.80	0/1486	0.94	2/2022 (0.1%)
45	DZ	0.58	0/1483	0.80	0/2023
46	B0	0.95	0/602	1.10	3/804 (0.4%)
46	D0	0.64	0/615	0.89	0/820
47	B1	0.94	0/752	1.07	1/1003 (0.1%)
47	D1	0.70	0/752	0.92	2/1003 (0.2%)
48	B2	0.96	2/590 (0.3%)	1.00	1/781 (0.1%)
48	D2	0.63	0/586	0.79	1/779 (0.1%)
49	B3	1.02	0/463	1.07	0/623
49	D3	0.57	0/458	0.79	0/616
50	B4	0.62	0/358	0.97	2/487 (0.4%)
50	D4	0.66	0/358	0.82	1/487 (0.2%)
51	B5	1.01	1/469 (0.2%)	1.09	2/634 (0.3%)
51	D5	0.69	0/465	0.90	0/630
52	B6	0.96	0/456	1.09	2/609 (0.3%)
52	D6	0.73	0/444	0.87	0/595
53	B7	1.10	0/426	1.21	4/561 (0.7%)
53	D7	0.78	0/410	0.88	0/543
54	B8	0.99	0/516	1.14	2/679 (0.3%)
54	D8	0.75	0/516	0.93	0/679
55	B9	1.07	1/300 (0.3%)	1.25	3/395 (0.8%)
55	D9	0.68	0/295	0.87	0/390
All	All	1.07	699/303213 (0.2%)	1.58	7364/453838 (1.6%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	AA	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
1	CA	0	1
2	AB	0	4
2	CB	0	2
3	AC	0	2
4	AD	0	4
4	CD	0	5
5	AE	0	2
5	CE	0	1
7	AG	0	1
7	CG	0	1
9	AI	0	3
10	AJ	0	2
10	CJ	0	2
11	AK	0	1
12	AL	0	1
13	AM	0	3
13	CM	0	2
14	CN	0	1
16	CP	0	1
18	AR	0	1
20	AT	0	2
20	CT	0	2
21	CU	0	1
22	AY	0	1
27	BD	0	2
28	BE	0	2
28	DE	0	1
29	BF	0	2
29	DF	0	1
30	DG	0	3
31	DH	0	1
32	BI	0	3
34	BO	0	1
34	DO	0	1
35	BP	0	1
35	DP	0	1
36	BQ	0	2
36	DQ	0	1
38	BS	0	1
38	DS	0	1
39	BT	0	1
39	DT	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
43	BX	0	1
45	BZ	0	1
47	B1	0	1
47	D1	0	1
48	D2	0	1
50	B4	0	1
50	D4	0	1
51	B5	0	1
52	D6	0	1
All	All	0	82

All (699) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	1142(A)	A	N9-C4	-17.94	1.27	1.37
25	BA	528	A	N9-C4	-17.30	1.27	1.37
1	CA	189(D)	C	N3-C4	-15.70	1.23	1.33
25	BA	676	A	N9-C4	-15.14	1.28	1.37
25	BA	1021	A	N9-C4	-14.78	1.28	1.37
1	CA	129(A)	G	N1-C2	-14.59	1.26	1.37
1	CA	189(D)	C	C2-N3	-13.63	1.24	1.35
1	CA	129(A)	G	C6-N1	-13.61	1.30	1.39
25	BA	2287	A	N9-C4	-12.23	1.30	1.37
25	BA	945	A	C5-C6	-12.10	1.30	1.41
25	BA	1332	G	N9-C4	-12.06	1.28	1.38
1	AA	129(A)	G	C6-N1	-11.38	1.31	1.39
25	BA	330	A	N9-C4	-11.25	1.31	1.37
23	AV	1	C	OP3-P	-10.55	1.48	1.61
23	CV	1	C	OP3-P	-10.44	1.48	1.61
25	BA	1332	G	N3-C4	-10.33	1.28	1.35
25	BA	945	A	N9-C4	-10.15	1.31	1.37
23	AV	76	A	N9-C4	-9.95	1.31	1.37
25	DA	528	A	N9-C4	-9.93	1.31	1.37
25	BA	945	A	N7-C5	-9.84	1.33	1.39
1	AA	189(D)	C	C2-N3	-9.82	1.27	1.35
27	BD	28	GLU	CG-CD	9.38	1.66	1.51
25	BA	676	A	N9-C8	9.36	1.45	1.37
1	AA	129(A)	G	N1-C2	-8.85	1.30	1.37
25	BA	933	A	N9-C4	-8.76	1.32	1.37
25	BA	1676	A	N9-C4	-8.73	1.32	1.37
25	BA	1602	U	C2-N3	-8.70	1.31	1.37
25	BA	197	A	N3-C4	-8.67	1.29	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	2621	A	N9-C4	-8.66	1.32	1.37
25	BA	933	A	C5-C6	-8.52	1.33	1.41
25	BA	945	A	N3-C4	-8.52	1.29	1.34
27	BD	28	GLU	CB-CG	8.49	1.68	1.52
25	BA	2258	C	N1-C6	-8.48	1.32	1.37
25	BA	2287	A	C5-C6	-8.42	1.33	1.41
4	AD	9	CYS	CB-SG	8.41	1.96	1.82
25	BA	530	G	N3-C4	-8.34	1.29	1.35
25	BA	2502	G	C6-N1	-8.33	1.33	1.39
25	BA	528	A	C5-C6	-8.24	1.33	1.41
25	BA	530	G	N9-C8	8.22	1.43	1.37
25	BA	1210	A	C5-C6	-8.19	1.33	1.41
25	BA	451	C	N1-C6	-8.17	1.32	1.37
25	BA	1614	A	N9-C4	-8.17	1.32	1.37
1	AA	1227	A	N9-C4	-8.16	1.32	1.37
25	BA	676	A	C5-C4	8.14	1.44	1.38
4	CD	12	CYS	CB-SG	8.07	1.96	1.82
25	BA	37	C	N1-C6	-8.06	1.32	1.37
25	BA	2247	A	C6-N1	-8.03	1.29	1.35
25	BA	1569	A	N3-C4	-8.00	1.30	1.34
25	BA	1210	A	N9-C4	-7.95	1.33	1.37
25	BA	2377	A	N9-C4	-7.93	1.33	1.37
25	BA	1378	A	N9-C4	-7.87	1.33	1.37
25	BA	480	A	N7-C5	-7.86	1.34	1.39
1	AA	129(A)	G	C8-N7	7.85	1.35	1.30
25	BA	1251	C	N1-C6	-7.81	1.32	1.37
4	AD	26	CYS	CB-SG	7.80	1.95	1.82
25	BA	2510	C	N1-C6	-7.80	1.32	1.37
25	DA	590	A	N9-C4	-7.79	1.33	1.37
25	BA	502	A	C6-N1	-7.77	1.30	1.35
25	BA	2287	A	N3-C4	-7.76	1.30	1.34
25	BA	820	A	N3-C4	-7.75	1.30	1.34
27	DD	28	GLU	CG-CD	7.75	1.63	1.51
25	BA	1651	G	C6-N1	-7.74	1.34	1.39
25	BA	141	A	C5-C6	-7.74	1.34	1.41
25	BA	746	A	N7-C5	-7.72	1.34	1.39
27	BD	237	GLU	CG-CD	7.69	1.63	1.51
25	DA	1332	G	N9-C4	-7.64	1.31	1.38
25	BA	821	A	N7-C5	-7.63	1.34	1.39
25	BA	2058	A	N3-C4	-7.63	1.30	1.34
25	BA	2009	G	N3-C4	-7.60	1.30	1.35
25	BA	2274	A	N9-C4	-7.54	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	1332	G	C5-C4	7.54	1.43	1.38
25	BA	697	C	N3-C4	-7.53	1.28	1.33
25	BA	141	A	N7-C5	-7.53	1.34	1.39
25	BA	71	A	N9-C4	-7.47	1.33	1.37
25	BA	587	C	N3-C4	-7.43	1.28	1.33
25	BA	1021	A	C5-C6	-7.43	1.34	1.41
25	BA	848	G	C5-C4	-7.43	1.33	1.38
25	BA	90	U	N3-C4	7.42	1.45	1.38
25	BA	139(A)	G	N3-C4	7.40	1.40	1.35
25	BA	1558	A	C5-C6	-7.40	1.34	1.41
25	BA	2844	G	N9-C8	-7.37	1.32	1.37
25	BA	2570	G	N9-C4	-7.35	1.32	1.38
25	BA	2070	G	N7-C5	-7.33	1.34	1.39
25	BA	2689	U	N3-C4	-7.33	1.31	1.38
1	CA	129(A)	G	C6-O6	7.32	1.30	1.24
25	BA	2826	A	N9-C4	-7.31	1.33	1.37
25	BA	2678	C	N1-C6	-7.28	1.32	1.37
25	DA	2565	A	N9-C4	-7.27	1.33	1.37
25	BA	1890	A	N9-C4	-7.26	1.33	1.37
25	BA	1177	A	N9-C4	7.26	1.42	1.37
25	BA	1977	A	N9-C4	-7.23	1.33	1.37
25	BA	528	A	N7-C5	-7.22	1.34	1.39
25	BA	71	A	N3-C4	-7.21	1.30	1.34
25	DA	761	A	N7-C5	-7.20	1.34	1.39
25	BA	2032	G	N7-C5	-7.20	1.34	1.39
25	BA	330	A	N3-C4	-7.18	1.30	1.34
25	BA	2725	A	N9-C4	-7.15	1.33	1.37
25	DA	2057	A	N3-C4	-7.13	1.30	1.34
25	BA	1332	G	C5-C6	-7.11	1.35	1.42
25	DA	2287	A	N9-C4	-7.08	1.33	1.37
25	BA	2060	A	N9-C4	-7.08	1.33	1.37
25	BA	1217	C	N1-C6	-7.04	1.32	1.37
25	BA	589	C	N3-C4	-7.03	1.29	1.33
1	CA	189(D)	C	N1-C6	7.01	1.41	1.37
25	BA	533	G	C5-C6	-7.00	1.35	1.42
25	BA	2037	G	C8-N7	-7.00	1.26	1.30
25	BA	2442	C	N3-C4	-6.93	1.29	1.33
25	BA	528	A	N3-C4	-6.93	1.30	1.34
25	BA	1384	A	N7-C5	-6.93	1.35	1.39
25	BA	2848	G	N7-C5	-6.91	1.35	1.39
25	BA	2430	A	N9-C4	-6.90	1.33	1.37
25	BA	705	A	C5-C4	-6.89	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	1384	A	N9-C4	-6.89	1.33	1.37
25	BA	676	A	C5-C6	-6.88	1.34	1.41
25	BA	2046	G	N7-C5	-6.88	1.35	1.39
25	BA	141	A	N9-C4	-6.87	1.33	1.37
25	BA	31	C	N1-C6	-6.84	1.33	1.37
25	BA	1570	A	N9-C4	-6.83	1.33	1.37
25	BA	1198	U	C2-N3	-6.81	1.32	1.37
25	BA	727	A	N9-C4	-6.81	1.33	1.37
25	BA	389	G	N3-C4	-6.78	1.30	1.35
25	BA	2825	C	N1-C6	-6.78	1.33	1.37
25	BA	860	U	C2-N3	-6.77	1.33	1.37
25	BA	983	A	C5-C4	-6.77	1.34	1.38
25	BA	689	A	N3-C4	-6.77	1.30	1.34
25	BA	218	A	N9-C4	-6.76	1.33	1.37
25	BA	652(B)	A	N9-C4	6.75	1.41	1.37
25	BA	697	C	N1-C6	-6.74	1.33	1.37
1	CA	189(D)	C	C4-N4	-6.73	1.27	1.33
25	DA	271(M)	G	N9-C4	6.73	1.43	1.38
25	BA	530	G	N9-C4	-6.72	1.32	1.38
25	BA	1331	A	N3-C4	-6.72	1.30	1.34
25	BA	1573	G	N9-C4	-6.71	1.32	1.38
25	BA	2776	A	N9-C4	-6.70	1.33	1.37
25	BA	465	G	N1-C2	-6.70	1.32	1.37
25	BA	575	A	N3-C4	-6.68	1.30	1.34
25	BA	195	A	N3-C4	-6.67	1.30	1.34
25	BA	314	A	N9-C4	-6.66	1.33	1.37
1	AA	787	A	N3-C4	-6.65	1.30	1.34
25	BA	1786	A	N3-C4	-6.64	1.30	1.34
25	BA	90	U	C2-N3	6.64	1.42	1.37
25	BA	503	A	N3-C4	-6.63	1.30	1.34
25	BA	1235	G	N3-C4	-6.63	1.30	1.35
25	BA	2697	G	N7-C5	-6.60	1.35	1.39
25	BA	265	A	C5-C6	-6.59	1.35	1.41
25	BA	671	C	N1-C6	-6.59	1.33	1.37
25	BA	2440	C	N1-C6	-6.59	1.33	1.37
25	BA	390	A	N9-C4	-6.58	1.33	1.37
27	DD	237	GLU	CB-CG	6.57	1.64	1.52
25	BA	1676	A	N3-C4	-6.57	1.30	1.34
25	BA	582	G	C6-N1	-6.56	1.34	1.39
25	BA	2607	G	C6-N1	-6.56	1.34	1.39
25	BA	2521	C	N1-C6	-6.56	1.33	1.37
25	BA	2203	U	N1-C2	-6.55	1.32	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	129	C	N1-C6	-6.54	1.33	1.37
25	DA	1698	A	N9-C4	-6.54	1.33	1.37
27	DD	28	GLU	CB-CG	6.53	1.64	1.52
25	BA	514	A	C6-N1	-6.52	1.30	1.35
25	BA	2286	A	C5-C4	6.50	1.43	1.38
1	AA	189(D)	C	N3-C4	-6.49	1.29	1.33
25	BA	1969	A	C6-N1	-6.49	1.31	1.35
25	BA	785	G	N9-C4	-6.48	1.32	1.38
25	BA	698	C	N1-C6	-6.48	1.33	1.37
25	BA	266	G	N7-C5	-6.48	1.35	1.39
25	BA	1128	A	C5-C4	-6.48	1.34	1.38
1	CA	115	G	N7-C5	-6.47	1.35	1.39
25	DA	2207	G	N7-C5	-6.46	1.35	1.39
25	BA	1545	A	N9-C4	-6.45	1.33	1.37
25	BA	450	G	N9-C8	-6.43	1.33	1.37
25	BA	1782	C	N1-C6	-6.43	1.33	1.37
25	BA	1698	A	C5-C4	6.42	1.43	1.38
25	BA	2442	C	N1-C6	-6.42	1.33	1.37
25	BA	2399	G	N9-C8	-6.41	1.33	1.37
25	BA	252	G	N3-C4	-6.41	1.30	1.35
25	BA	2073	C	N1-C6	-6.40	1.33	1.37
25	BA	12	U	N1-C2	6.40	1.44	1.38
25	BA	746	A	C5-C6	-6.40	1.35	1.41
25	DA	1689	A	N7-C5	-6.38	1.35	1.39
1	AA	1502	A	C5-C6	-6.38	1.35	1.41
25	BA	1286	A	C6-N1	-6.38	1.31	1.35
25	BA	973	A	N9-C8	-6.36	1.32	1.37
25	BA	2776	A	N3-C4	-6.36	1.31	1.34
25	BA	1332	G	N1-C2	6.36	1.42	1.37
25	BA	2319	G	N3-C4	-6.35	1.31	1.35
25	BA	761	A	N7-C5	-6.35	1.35	1.39
4	CD	26	CYS	CB-SG	6.34	1.93	1.82
25	BA	1803	A	N7-C5	-6.33	1.35	1.39
25	BA	918	A	N9-C4	-6.33	1.34	1.37
25	BA	632	A	C6-N1	-6.32	1.31	1.35
25	BA	2455	G	N3-C4	-6.30	1.31	1.35
25	BA	469	G	C6-N1	-6.29	1.35	1.39
25	BA	706	A	N9-C4	-6.29	1.34	1.37
25	BA	2005	A	N9-C4	-6.28	1.34	1.37
25	DA	1782	C	N1-C6	-6.27	1.33	1.37
25	BA	994	C	N1-C6	-6.26	1.33	1.37
25	BA	2605	U	N3-C4	-6.26	1.32	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	DA	571	A	N9-C4	-6.26	1.34	1.37
25	BA	745	G	N7-C5	-6.25	1.35	1.39
25	DA	1021	A	N9-C4	-6.25	1.34	1.37
25	BA	90	U	C4-O4	6.24	1.28	1.23
1	CA	129(A)	G	C8-N7	6.24	1.34	1.30
25	BA	530	G	N1-C2	6.23	1.42	1.37
25	BA	2319	G	C5-C6	-6.23	1.36	1.42
25	BA	1198	U	C2-O2	-6.23	1.16	1.22
25	BA	271(M)	G	N9-C4	6.22	1.43	1.38
25	BA	1021	A	N7-C5	-6.22	1.35	1.39
25	BA	784	A	C6-N1	-6.22	1.31	1.35
25	BA	2037	G	N1-C2	-6.21	1.32	1.37
25	BA	775	G	N9-C8	-6.21	1.33	1.37
25	BA	676	A	N3-C4	-6.21	1.31	1.34
25	BA	1158	C	C4-N4	-6.21	1.28	1.33
1	AA	1507	A	N9-C4	-6.20	1.34	1.37
25	BA	226	G	C5-C4	-6.19	1.34	1.38
25	BA	975(A)	G	C5-C4	-6.19	1.34	1.38
1	CA	189(D)	C	C2-O2	6.19	1.30	1.24
25	BA	800	A	N3-C4	-6.17	1.31	1.34
25	BA	463	G	C6-N1	-6.17	1.35	1.39
25	BA	1129	A	N9-C4	-6.17	1.34	1.37
25	BA	74	A	N3-C4	-6.17	1.31	1.34
25	BA	216	A	N3-C4	-6.17	1.31	1.34
25	BA	1026	U	N1-C2	6.17	1.44	1.38
25	BA	677	A	N7-C5	-6.16	1.35	1.39
25	BA	1008	C	N1-C6	-6.16	1.33	1.37
25	BA	1607	C	C2-N3	6.15	1.40	1.35
25	BA	70	G	C6-N1	-6.15	1.35	1.39
25	BA	2378	A	N9-C4	-6.14	1.34	1.37
25	BA	2082	A	N9-C4	-6.14	1.34	1.37
1	AA	129(A)	G	N7-C5	-6.14	1.35	1.39
25	BA	975	C	N3-C4	-6.14	1.29	1.33
25	BA	1250	G	N7-C5	-6.14	1.35	1.39
25	BA	127	A	C5-C4	-6.13	1.34	1.38
25	DA	945	A	C5-C6	-6.13	1.35	1.41
25	BA	449	A	C5-C6	-6.12	1.35	1.41
25	BA	2454	G	N1-C2	-6.12	1.32	1.37
25	BA	1145	C	N1-C2	-6.12	1.34	1.40
25	BA	2244	U	N3-C4	-6.10	1.32	1.38
25	BA	1332	G	N7-C5	-6.09	1.35	1.39
25	BA	1661	G	N9-C8	-6.08	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	2689	U	C3'-O3'	6.08	1.50	1.42
25	BA	2207	G	N7-C5	-6.08	1.35	1.39
25	BA	1021	A	N3-C4	-6.07	1.31	1.34
25	BA	2429	G	N7-C5	-6.07	1.35	1.39
25	BA	973	A	N7-C5	-6.07	1.35	1.39
25	DA	528	A	N3-C4	-6.07	1.31	1.34
25	BA	514	A	C6-N6	-6.07	1.29	1.33
25	DA	2733	A	N9-C4	6.07	1.41	1.37
25	BA	676	A	N1-C2	6.06	1.39	1.34
1	CA	1279	A	N9-C4	6.05	1.41	1.37
25	BA	793	A	N7-C5	-6.04	1.35	1.39
25	BA	2417	C	N1-C6	-6.04	1.33	1.37
25	BA	749	C	N1-C6	-6.03	1.33	1.37
25	BA	215	G	C6-N1	-6.03	1.35	1.39
48	B2	31	GLU	CG-CD	6.02	1.60	1.51
25	BA	265	A	N7-C5	-6.02	1.35	1.39
25	BA	694	U	C2-N3	-6.02	1.33	1.37
25	BA	1564	C	N3-C4	-6.01	1.29	1.33
25	BA	801	G	N9-C8	-6.01	1.33	1.37
25	BA	139(A)	G	N9-C4	6.01	1.42	1.38
25	BA	1614	A	N3-C4	-6.01	1.31	1.34
25	BA	1045	A	N9-C4	6.00	1.41	1.37
25	BA	632	A	C5-C6	-5.99	1.35	1.41
25	BA	2015	A	N9-C4	-5.99	1.34	1.37
25	BA	1785	A	C5-C6	-5.98	1.35	1.41
25	BA	2005	A	C5-C4	-5.98	1.34	1.38
25	BA	2254	C	N1-C6	-5.98	1.33	1.37
25	BA	575	A	N7-C5	-5.98	1.35	1.39
25	BA	610	G	C6-N1	-5.97	1.35	1.39
25	BA	933	A	C6-N6	-5.97	1.29	1.33
25	BA	1948	G	C6-N1	-5.97	1.35	1.39
25	BA	1638	C	N1-C6	-5.96	1.33	1.37
25	BA	1893	C	N1-C6	-5.96	1.33	1.37
25	BA	1235	G	C6-N1	-5.96	1.35	1.39
25	DA	955	C	N3-C4	-5.96	1.29	1.33
25	BA	1890	A	N3-C4	-5.96	1.31	1.34
25	DA	1785	A	N7-C5	-5.95	1.35	1.39
1	CA	969	A	N9-C4	5.95	1.41	1.37
25	BA	2459	A	N9-C4	-5.94	1.34	1.37
25	BA	2869	G	N7-C5	-5.93	1.35	1.39
25	BA	2052	G	C6-O6	-5.92	1.18	1.24
25	BA	2588	G	C6-N1	-5.92	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	189	G	N9-C8	-5.92	1.33	1.37
25	BA	2442	C	C2-N3	-5.92	1.31	1.35
25	DA	861	A	N9-C4	5.92	1.41	1.37
25	BA	1648	C	C2-N3	-5.91	1.31	1.35
25	BA	1607	C	N3-C4	5.90	1.38	1.33
25	BA	2705	A	N9-C4	-5.90	1.34	1.37
25	BA	113	G	N9-C4	-5.90	1.33	1.38
25	BA	980	A	N7-C5	-5.90	1.35	1.39
25	BA	481	G	C3'-O3'	5.90	1.50	1.42
25	BA	139(A)	G	C2-N3	5.89	1.37	1.32
25	DA	2207	G	N9-C8	-5.89	1.33	1.37
25	BA	1367	A	N7-C5	-5.89	1.35	1.39
25	BA	1376	C	N1-C6	-5.88	1.33	1.37
25	BA	2027	G	N1-C2	-5.87	1.33	1.37
25	BA	1241	A	N9-C4	-5.87	1.34	1.37
25	BA	1816	G	C2-N3	5.87	1.37	1.32
25	BA	375	C	N1-C6	-5.87	1.33	1.37
25	BA	1660	C	N3-C4	-5.87	1.29	1.33
25	BA	2019	A	C5-C6	-5.87	1.35	1.41
25	BA	1854	A	N9-C4	-5.86	1.34	1.37
25	BA	2368	C	N1-C6	-5.86	1.33	1.37
25	BA	2441	C	N3-C4	-5.86	1.29	1.33
25	BA	1252	G	C5-C4	-5.85	1.34	1.38
25	BA	388	G	N7-C5	-5.85	1.35	1.39
25	BA	1384	A	C5-C4	-5.84	1.34	1.38
25	BA	751	A	N3-C4	-5.84	1.31	1.34
25	BA	1791	A	N3-C4	-5.84	1.31	1.34
25	BA	2000	G	N9-C8	-5.84	1.33	1.37
25	DA	1332	G	C2-N3	-5.84	1.28	1.32
25	BA	449	A	N9-C4	-5.83	1.34	1.37
25	BA	1269	A	C6-N1	-5.83	1.31	1.35
25	BA	1375	C	N1-C6	-5.82	1.33	1.37
25	BA	1216	G	N7-C5	-5.82	1.35	1.39
25	BA	2002	G	C8-N7	-5.82	1.27	1.30
25	BA	832	G	N3-C4	-5.82	1.31	1.35
25	DA	2451	A	N9-C4	-5.81	1.34	1.37
25	DA	2598	A	C5-C6	-5.81	1.35	1.41
25	BA	2454	G	C6-N1	-5.81	1.35	1.39
25	DA	1625	C	N1-C6	-5.81	1.33	1.37
25	BA	2244	U	C2-N3	-5.80	1.33	1.37
25	BA	1678	G	N3-C4	-5.80	1.31	1.35
25	BA	1360	A	N9-C4	-5.79	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
48	B2	5	GLU	CG-CD	5.78	1.60	1.51
25	BA	2015	A	N3-C4	-5.78	1.31	1.34
25	BA	2064	C	N1-C6	-5.77	1.33	1.37
25	BA	1773	A	N7-C5	-5.77	1.35	1.39
25	BA	1268	A	C6-N1	-5.76	1.31	1.35
25	BA	2071	A	N9-C4	-5.76	1.34	1.37
25	BA	2453	A	N7-C5	-5.76	1.35	1.39
25	BA	1210	A	N3-C4	-5.76	1.31	1.34
25	BA	1785	A	N7-C5	-5.76	1.35	1.39
25	BA	1210	A	N7-C5	-5.75	1.35	1.39
25	BA	2431	U	C2-N3	-5.75	1.33	1.37
25	BA	2848	G	C6-N1	-5.75	1.35	1.39
25	BA	1275	A	N7-C5	-5.75	1.35	1.39
25	DA	733	G	N7-C5	-5.74	1.35	1.39
25	BA	1961	C	N1-C6	-5.74	1.33	1.37
13	AM	117	VAL	CB-CG1	5.74	1.64	1.52
25	BA	1992	G	C4'-C3'	-5.73	1.46	1.52
25	BA	1253	A	C5-C4	-5.73	1.34	1.38
25	BA	587	C	N1-C6	-5.72	1.33	1.37
25	BA	994	C	N3-C4	-5.71	1.29	1.33
25	BA	382	G	N1-C2	-5.71	1.33	1.37
25	BA	1368	G	N3-C4	-5.71	1.31	1.35
25	DA	1773	A	N3-C4	-5.71	1.31	1.34
25	BA	2588	G	N3-C4	-5.71	1.31	1.35
2	AB	239	VAL	CA-CB	5.70	1.66	1.54
25	DA	753	C	N1-C6	-5.70	1.33	1.37
25	BA	780	G	C6-N1	-5.70	1.35	1.39
25	DA	2689	U	C3'-O3'	5.69	1.50	1.42
1	AA	733	A	C5-C4	-5.69	1.34	1.38
25	BA	229	A	N9-C4	5.69	1.41	1.37
25	BA	988	A	N9-C8	-5.69	1.33	1.37
25	BA	561	G	N1-C2	-5.68	1.33	1.37
25	DA	1142(A)	A	N9-C4	-5.67	1.34	1.37
25	BA	1641	A	N7-C5	-5.67	1.35	1.39
25	BA	973	A	N3-C4	-5.66	1.31	1.34
25	BA	1406	U	C4-O4	-5.66	1.19	1.23
25	BA	1948	G	N1-C2	-5.65	1.33	1.37
25	DA	756	C	N1-C6	-5.65	1.33	1.37
25	BA	823	G	N9-C4	-5.65	1.33	1.38
25	BA	2274	A	C6-N6	-5.65	1.29	1.33
25	BA	1403	C	N1-C6	-5.64	1.33	1.37
25	BA	804	A	N7-C5	-5.64	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	1807	G	N7-C5	-5.64	1.35	1.39
25	BA	2377	A	C5-C6	-5.64	1.35	1.41
25	BA	988	A	C5-C4	-5.64	1.34	1.38
25	BA	2588	G	C2-N3	-5.64	1.28	1.32
51	B5	49	CYS	CB-SG	-5.62	1.72	1.81
25	BA	1698	A	C5-C6	-5.62	1.35	1.41
25	BA	1351	C	N3-C4	-5.62	1.30	1.33
25	BA	804	A	N9-C4	-5.60	1.34	1.37
1	AA	787	A	N9-C4	-5.60	1.34	1.37
25	BA	2060	A	P-O5'	-5.60	1.54	1.59
25	BA	492	A	N7-C5	-5.60	1.35	1.39
25	BA	1384	A	N3-C4	-5.59	1.31	1.34
25	BA	2044	C	N1-C6	-5.59	1.33	1.37
25	BA	783	A	C6-N1	-5.59	1.31	1.35
25	DA	2429	G	N7-C5	-5.59	1.35	1.39
25	BA	2819	G	C5-C4	-5.59	1.34	1.38
25	BA	951	C	N3-C4	-5.59	1.30	1.33
25	BA	206	U	C4-O4	-5.58	1.19	1.23
1	AA	768	A	N3-C4	-5.58	1.31	1.34
25	BA	2680	C	N1-C6	-5.58	1.33	1.37
25	BA	2066	C	N1-C6	-5.58	1.33	1.37
25	BA	2510	C	N3-C4	-5.55	1.30	1.33
25	BA	2399	G	C5-C4	-5.55	1.34	1.38
25	BA	2772	C	N1-C6	-5.55	1.33	1.37
25	BA	2287	A	N7-C5	-5.55	1.35	1.39
25	BA	518	G	N9-C8	-5.54	1.33	1.37
25	BA	745	G	C8-N7	-5.54	1.27	1.30
25	DA	1678	G	C6-N1	-5.54	1.35	1.39
25	BA	1393	A	N3-C4	-5.53	1.31	1.34
25	DA	141	A	C5-C6	-5.52	1.36	1.41
25	BA	2536	G	C6-N1	-5.52	1.35	1.39
25	BA	389	G	N9-C4	-5.52	1.33	1.38
25	BA	2541	A	C5-C6	-5.52	1.36	1.41
25	BA	1107	G	N9-C4	5.51	1.42	1.38
25	BA	567	A	N7-C5	-5.51	1.35	1.39
25	BA	1553	A	N3-C4	-5.51	1.31	1.34
25	BA	147	U	C4-O4	5.51	1.28	1.23
25	BA	1384	A	C5-C6	-5.51	1.36	1.41
25	BA	1106	G	C6-N1	-5.50	1.35	1.39
25	BA	1630	G	C6-N1	-5.50	1.35	1.39
25	BA	90	U	N1-C2	5.50	1.43	1.38
26	BB	81	G	N3-C4	-5.50	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	2005	A	N3-C4	-5.50	1.31	1.34
25	DA	191	A	N7-C5	-5.50	1.35	1.39
1	AA	1502	A	P-O5'	-5.50	1.54	1.59
1	AA	1530	G	N9-C4	-5.50	1.33	1.38
23	AV	1	C	N1-C6	5.50	1.40	1.37
25	BA	177	G	C6-N1	-5.49	1.35	1.39
25	BA	1831	G	N3-C4	-5.49	1.31	1.35
25	DA	265	A	N7-C5	-5.49	1.35	1.39
25	BA	1442	G	N3-C4	-5.49	1.31	1.35
25	DA	2581	G	C6-N1	-5.49	1.35	1.39
25	BA	34	C	N1-C2	5.49	1.45	1.40
26	BB	53	A	N7-C5	-5.48	1.35	1.39
25	BA	1977	A	N9-C8	-5.48	1.33	1.37
25	BA	1992	G	C3'-C2'	5.48	1.58	1.52
25	BA	1434	A	N9-C4	-5.48	1.34	1.37
25	BA	51	G	N9-C8	-5.48	1.34	1.37
25	BA	465	G	C6-N1	-5.48	1.35	1.39
25	BA	1158	C	N3-C4	-5.48	1.30	1.33
25	BA	1698	A	N9-C4	-5.48	1.34	1.37
25	BA	2346	A	N9-C4	-5.48	1.34	1.37
25	BA	16	G	N3-C4	-5.47	1.31	1.35
25	BA	215	G	N1-C2	-5.47	1.33	1.37
25	BA	2617	C	N1-C6	-5.47	1.33	1.37
25	BA	725	G	C6-O6	5.47	1.29	1.24
25	BA	797	C	N1-C6	-5.47	1.33	1.37
25	BA	632	A	C6-N6	-5.47	1.29	1.33
25	BA	2327	A	C5-C4	-5.47	1.34	1.38
25	BA	2002	G	C5-C4	-5.46	1.34	1.38
25	DA	1698	A	C5-C6	-5.46	1.36	1.41
25	BA	2730	C	N1-C6	-5.46	1.33	1.37
25	DA	1776	G	N7-C5	-5.46	1.35	1.39
25	BA	975(A)	G	N3-C4	-5.46	1.31	1.35
25	BA	1141	U	C2-N3	-5.46	1.33	1.37
25	BA	2520	C	N1-C6	-5.45	1.33	1.37
25	BA	1648	C	N1-C6	-5.45	1.33	1.37
1	CA	129(A)	G	N3-C4	5.44	1.39	1.35
25	DA	1332	G	N3-C4	-5.44	1.31	1.35
25	DA	1669	A	N3-C4	-5.44	1.31	1.34
25	BA	751	A	N9-C4	-5.43	1.34	1.37
25	BA	792	G	N1-C2	-5.43	1.33	1.37
25	BA	2073	C	N3-C4	-5.43	1.30	1.33
55	B9	11	CYS	CB-SG	-5.43	1.73	1.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	2059	A	N9-C4	-5.43	1.34	1.37
25	BA	677	A	N3-C4	-5.43	1.31	1.34
25	BA	1570	A	C5-C6	-5.42	1.36	1.41
25	DA	450	G	C6-O6	5.41	1.29	1.24
25	BA	460	A	C6-N1	-5.41	1.31	1.35
25	BA	492	A	N9-C4	-5.41	1.34	1.37
30	BG	29	TRP	CB-CG	-5.41	1.40	1.50
25	BA	824	A	C6-N1	-5.41	1.31	1.35
25	BA	199	A	C5-C4	-5.41	1.34	1.38
25	BA	819	A	C5-C4	-5.40	1.34	1.38
25	BA	1164	G	N9-C8	-5.40	1.34	1.37
25	BA	2711	A	N9-C4	-5.40	1.34	1.37
25	BA	1758	G	N7-C5	-5.40	1.36	1.39
25	BA	2392	A	N7-C5	-5.40	1.36	1.39
40	BU	89	GLU	CG-CD	5.39	1.60	1.51
25	BA	1204	A	N9-C4	-5.39	1.34	1.37
25	BA	1349	A	N9-C4	-5.39	1.34	1.37
25	BA	1966	A	N9-C4	-5.39	1.34	1.37
25	BA	2537	U	C2-N3	-5.38	1.33	1.37
25	BA	687	C	N1-C6	-5.38	1.33	1.37
25	BA	1046	A	N9-C4	5.38	1.41	1.37
25	BA	1616	A	N7-C5	-5.38	1.36	1.39
1	AA	1392	G	N3-C4	-5.37	1.31	1.35
25	BA	1937	A	N9-C8	-5.37	1.33	1.37
25	BA	207	A	N7-C5	-5.37	1.36	1.39
25	BA	88	G	N7-C5	-5.36	1.36	1.39
25	BA	705	A	N3-C4	-5.36	1.31	1.34
1	AA	768	A	N9-C8	-5.36	1.33	1.37
25	BA	933	A	N3-C4	-5.36	1.31	1.34
25	BA	973	A	N9-C4	-5.36	1.34	1.37
25	BA	122	G	N3-C4	-5.35	1.31	1.35
25	BA	734	A	C5-C6	-5.35	1.36	1.41
25	BA	1959	G	C6-N1	-5.35	1.35	1.39
25	BA	2593	U	C2-N3	-5.35	1.34	1.37
25	BA	2873	A	N7-C5	-5.35	1.36	1.39
25	DA	394	A	N7-C5	-5.34	1.36	1.39
25	BA	2608	G	N3-C4	-5.34	1.31	1.35
1	AA	1256	A	N9-C4	5.34	1.41	1.37
2	AB	236	TYR	CE1-CZ	5.34	1.45	1.38
25	BA	2820	A	N9-C4	-5.34	1.34	1.37
26	BB	72	G	N9-C4	-5.33	1.33	1.38
25	BA	2070	G	N9-C8	-5.33	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	536	A	C6-N1	-5.33	1.31	1.35
25	BA	1363	C	N3-C4	-5.33	1.30	1.33
25	BA	1204	A	N7-C5	-5.33	1.36	1.39
25	BA	781	A	C5-C4	-5.33	1.35	1.38
25	BA	2369	A	N3-C4	-5.33	1.31	1.34
25	BA	214	G	N7-C5	-5.32	1.36	1.39
25	BA	2768	C	N1-C6	-5.32	1.33	1.37
25	BA	2455	G	N9-C4	-5.32	1.33	1.38
25	BA	2589	A	N9-C4	-5.31	1.34	1.37
42	BW	78	GLU	CG-CD	5.31	1.59	1.51
25	BA	1584	C	N1-C6	5.31	1.40	1.37
25	BA	2381	C	N1-C6	-5.31	1.33	1.37
1	AA	26	A	N9-C4	-5.31	1.34	1.37
25	DA	1996	C	N1-C6	-5.31	1.33	1.37
25	BA	810	U	N1-C6	-5.31	1.33	1.38
25	BA	2375	G	C5-C4	-5.31	1.34	1.38
25	BA	127	A	C5-C6	-5.31	1.36	1.41
25	BA	2541	A	N7-C5	-5.30	1.36	1.39
25	BA	213	A	N9-C4	-5.30	1.34	1.37
25	BA	775	G	C5-C4	-5.30	1.34	1.38
1	AA	547	A	N3-C4	-5.30	1.31	1.34
25	DA	1246	A	N9-C4	-5.30	1.34	1.37
25	DA	2001	A	N9-C4	-5.30	1.34	1.37
25	DA	1670	C	N1-C6	-5.29	1.33	1.37
25	BA	86	C	C2-N3	-5.29	1.31	1.35
25	BA	514	A	C5-C4	-5.29	1.35	1.38
25	DA	733	G	C8-N7	-5.29	1.27	1.30
25	BA	1760	A	N7-C5	-5.29	1.36	1.39
25	BA	2010	G	N9-C8	-5.29	1.34	1.37
1	CA	129(A)	G	C5-C4	5.29	1.42	1.38
1	AA	166	G	N9-C4	5.28	1.42	1.38
25	BA	1197	G	C6-N1	-5.28	1.35	1.39
25	BA	2002	G	N7-C5	-5.28	1.36	1.39
25	BA	2481	G	C6-N1	-5.28	1.35	1.39
25	BA	597	U	N1-C2	-5.28	1.33	1.38
25	BA	320	A	N9-C4	-5.27	1.34	1.37
25	BA	1234	U	N1-C6	-5.27	1.33	1.38
25	BA	2052	G	C5-C6	-5.27	1.37	1.42
25	BA	265	A	N9-C4	-5.27	1.34	1.37
25	BA	1125	G	C2-N3	-5.26	1.28	1.32
25	BA	1259	G	N3-C4	-5.26	1.31	1.35
25	BA	141	A	N9-C8	5.25	1.42	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	2873	A	C5-C6	-5.25	1.36	1.41
25	BA	749	C	N3-C4	-5.24	1.30	1.33
25	BA	788	A	N7-C5	-5.24	1.36	1.39
25	BA	481	G	C6-N1	-5.24	1.35	1.39
25	BA	1999	C	N3-C4	-5.24	1.30	1.33
25	DA	838	C	N3-C4	-5.24	1.30	1.33
25	BA	1698	A	N3-C4	-5.23	1.31	1.34
1	AA	156	G	N9-C4	5.23	1.42	1.38
25	BA	2051	A	N7-C5	-5.23	1.36	1.39
25	BA	31	C	N3-C4	-5.23	1.30	1.33
25	BA	975(A)	G	C2-N3	-5.22	1.28	1.32
25	BA	1771	C	N3-C4	-5.22	1.30	1.33
25	BA	1568	G	N3-C4	-5.22	1.31	1.35
25	DA	188	G	N9-C4	-5.22	1.33	1.38
25	BA	765	G	C2-N3	-5.22	1.28	1.32
25	BA	960	A	N9-C4	-5.22	1.34	1.37
25	BA	2051	A	N3-C4	-5.22	1.31	1.34
1	AA	1433	A	N3-C4	-5.21	1.31	1.34
25	BA	139(A)	G	C6-N1	5.21	1.43	1.39
25	BA	2570	G	N9-C8	-5.21	1.34	1.37
25	BA	2286	A	N7-C5	-5.21	1.36	1.39
25	BA	826	U	N1-C6	-5.21	1.33	1.38
25	BA	1028	A	C5-C4	-5.21	1.35	1.38
25	BA	2448	A	N3-C4	-5.21	1.31	1.34
25	BA	1389	G	N3-C4	-5.21	1.31	1.35
25	BA	2730	C	N3-C4	-5.20	1.30	1.33
25	BA	2590	A	N9-C4	-5.20	1.34	1.37
25	BA	189	G	N7-C5	-5.20	1.36	1.39
25	BA	1002	G	N7-C5	-5.20	1.36	1.39
1	AA	344	A	N9-C4	5.20	1.41	1.37
25	BA	141	A	C5-C4	5.19	1.42	1.38
25	BA	1187	G	N3-C4	-5.19	1.31	1.35
25	BA	2039	C	N1-C6	-5.19	1.34	1.37
25	BA	2588	G	C5-C4	-5.19	1.34	1.38
25	DA	465	G	N7-C5	-5.18	1.36	1.39
25	BA	509	C	N3-C4	-5.18	1.30	1.33
25	BA	1289	C	N3-C4	-5.18	1.30	1.33
25	BA	2061	G	N7-C5	-5.18	1.36	1.39
25	DA	676	A	C5-C4	5.18	1.42	1.38
25	BA	509	C	N1-C2	-5.18	1.34	1.40
25	BA	2503	A	C5-C6	-5.18	1.36	1.41
25	BA	2576	G	N9-C4	-5.18	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	2729	G	C6-N1	-5.18	1.35	1.39
25	BA	1286	A	N3-C4	-5.18	1.31	1.34
25	BA	2753	A	N3-C4	-5.18	1.31	1.34
25	BA	2685	G	N7-C5	-5.18	1.36	1.39
25	BA	750	A	C6-N1	-5.17	1.31	1.35
25	BA	558	G	C5-C4	-5.17	1.34	1.38
26	BB	38	C	N3-C4	-5.17	1.30	1.33
25	BA	1225	G	N3-C4	-5.17	1.31	1.35
25	BA	945	A	C2-N3	5.17	1.38	1.33
25	BA	17	G	N1-C2	-5.16	1.33	1.37
25	DA	204	A	N3-C4	-5.16	1.31	1.34
25	DA	213	A	N9-C4	-5.16	1.34	1.37
25	BA	2081	C	N3-C4	-5.16	1.30	1.33
25	BA	661	C	N1-C6	-5.16	1.34	1.37
25	DA	2765	A	N7-C5	-5.16	1.36	1.39
25	BA	400	G	N7-C5	-5.16	1.36	1.39
25	BA	2308	G	N9-C4	-5.16	1.33	1.38
25	BA	2448	A	C5-C4	-5.16	1.35	1.38
25	BA	2260	C	C2-O2	-5.15	1.19	1.24
25	BA	452	G	N1-C2	-5.15	1.33	1.37
25	BA	394	A	C5-C4	-5.15	1.35	1.38
25	BA	1129	A	N3-C4	-5.14	1.31	1.34
1	AA	1504	G	N3-C4	-5.14	1.31	1.35
25	BA	1219	G	N9-C4	-5.14	1.33	1.38
25	DA	1959	G	N3-C4	-5.14	1.31	1.35
25	BA	668	G	C5-C4	-5.14	1.34	1.38
25	BA	1189	A	N7-C5	-5.14	1.36	1.39
25	BA	1933	G	N7-C5	-5.14	1.36	1.39
25	BA	952	G	N7-C5	-5.13	1.36	1.39
25	BA	1939	U	C4-O4	-5.13	1.19	1.23
4	CD	31	CYS	CB-SG	5.13	1.91	1.82
25	BA	2454	G	N3-C4	-5.13	1.31	1.35
26	DB	53	A	N9-C4	5.13	1.41	1.37
22	AY	101	GLU	CG-CD	5.13	1.59	1.51
25	BA	64	A	C6-N1	-5.12	1.31	1.35
25	BA	1815	A	N3-C4	-5.12	1.31	1.34
25	BA	2247	A	N7-C5	-5.12	1.36	1.39
25	BA	2713	A	N9-C4	-5.12	1.34	1.37
25	BA	984	A	N9-C4	-5.12	1.34	1.37
25	BA	848	G	N1-C2	-5.12	1.33	1.37
25	BA	123	G	N3-C4	-5.12	1.31	1.35
25	BA	2260	C	C2-N3	-5.12	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	1969	A	C5-C6	-5.12	1.36	1.41
25	BA	1372	U	C2-N3	5.12	1.41	1.37
25	BA	821	A	N9-C8	-5.11	1.33	1.37
1	AA	791	G	N3-C4	-5.11	1.31	1.35
25	BA	512	G	N1-C2	-5.11	1.33	1.37
25	BA	526	A	C6-N1	-5.11	1.31	1.35
25	DA	509	C	N3-C4	-5.11	1.30	1.33
25	BA	475	U	N1-C6	-5.11	1.33	1.38
26	BB	72	G	C8-N7	-5.11	1.27	1.30
25	BA	1764	G	C6-N1	-5.10	1.35	1.39
25	BA	645	C	N3-C4	5.09	1.37	1.33
25	BA	1331	A	N9-C4	-5.09	1.34	1.37
25	BA	2040	C	C4-C5	-5.09	1.38	1.43
25	BA	1992	G	C3'-O3'	5.09	1.49	1.42
25	BA	123	G	C5-C4	-5.09	1.34	1.38
25	BA	448	U	C2-N3	-5.09	1.34	1.37
25	BA	1672	C	N1-C6	-5.09	1.34	1.37
25	BA	1824	G	C5-C4	-5.09	1.34	1.38
25	BA	127	A	N1-C2	-5.09	1.29	1.34
25	BA	2039	C	C4-C5	-5.09	1.38	1.43
25	DA	2821	A	N9-C4	-5.09	1.34	1.37
25	BA	689	A	C6-N1	-5.09	1.31	1.35
1	AA	893	C	N1-C6	-5.09	1.34	1.37
25	DA	734	A	N9-C4	-5.09	1.34	1.37
25	BA	964	C	N1-C6	-5.08	1.34	1.37
25	BA	432	A	C5-C6	-5.08	1.36	1.41
25	BA	1275	A	N9-C8	-5.08	1.33	1.37
25	DA	2897	U	N1-C2	5.08	1.43	1.38
25	BA	589	C	C2-N3	-5.07	1.31	1.35
25	BA	1268	A	N3-C4	-5.07	1.31	1.34
26	BB	74	U	C2-N3	5.07	1.41	1.37
25	DA	699	A	C5-C4	-5.07	1.35	1.38
25	BA	1359	A	N7-C5	5.07	1.42	1.39
25	BA	2844	G	C5-C4	-5.07	1.34	1.38
1	CA	1513	A	C5-C6	-5.07	1.36	1.41
25	DA	1790	C	N1-C6	-5.07	1.34	1.37
25	BA	2041	U	N1-C6	-5.06	1.33	1.38
25	BA	2488	A	C5-C4	-5.06	1.35	1.38
25	BA	1123	C	N1-C6	-5.06	1.34	1.37
1	AA	810	C	C4-C5	-5.06	1.39	1.43
25	DA	1638	C	N3-C4	-5.06	1.30	1.33
25	DA	1675	C	N3-C4	-5.06	1.30	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	119	A	N9-C8	-5.06	1.33	1.37
2	AB	236	TYR	CD1-CE1	5.06	1.47	1.39
25	BA	413	C	N1-C6	-5.06	1.34	1.37
25	BA	2572	A	N7-C5	-5.06	1.36	1.39
25	BA	783	A	N7-C5	-5.05	1.36	1.39
25	BA	2411	A	C6-N6	-5.05	1.29	1.33
25	BA	1290	C	N3-C4	-5.04	1.30	1.33
25	BA	497	A	N9-C4	-5.04	1.34	1.37
25	BA	2453	A	C5-C4	-5.04	1.35	1.38
25	DA	84	A	N9-C4	-5.04	1.34	1.37
25	BA	49	A	N9-C4	5.04	1.40	1.37
25	BA	1816	G	C2-N2	5.04	1.39	1.34
1	AA	792	A	C5-C6	-5.04	1.36	1.41
25	BA	2414	G	C6-N1	-5.03	1.36	1.39
25	BA	308	G	N9-C4	5.03	1.42	1.38
25	BA	705	A	C8-N7	-5.03	1.28	1.31
25	BA	939	G	N1-C2	-5.03	1.33	1.37
25	BA	1566	A	N3-C4	5.03	1.37	1.34
25	BA	1619	G	N7-C5	-5.03	1.36	1.39
25	BA	1775	U	N1-C6	-5.03	1.33	1.38
25	BA	2073	C	N1-C2	-5.03	1.35	1.40
25	BA	24	G	C6-O6	5.02	1.28	1.24
25	DA	191	A	C5-C6	-5.02	1.36	1.41
25	BA	1653	G	C6-N1	-5.02	1.36	1.39
25	BA	2883	A	N7-C5	-5.02	1.36	1.39
25	BA	619	G	N9-C8	-5.02	1.34	1.37
25	BA	733	G	C5-C4	-5.02	1.34	1.38
25	BA	1257	C	N3-C4	-5.02	1.30	1.33
25	BA	1827	C	N3-C4	-5.02	1.30	1.33
25	BA	64	A	N3-C4	-5.02	1.31	1.34
25	BA	698	C	C4-C5	-5.02	1.39	1.43
25	DA	530	G	N9-C8	5.02	1.41	1.37
25	DA	1992	G	C3'-O3'	5.02	1.49	1.42
25	BA	390	A	C5-C6	-5.01	1.36	1.41
25	BA	73	A	C6-N1	-5.01	1.32	1.35
25	BA	1799	G	C3'-O3'	5.01	1.49	1.42
25	BA	1223	G	C6-N1	-5.01	1.36	1.39
25	DA	754	C	N1-C6	-5.01	1.34	1.37
1	AA	533	A	N9-C4	5.01	1.40	1.37
25	BA	134	C	N1-C6	-5.01	1.34	1.37
25	BA	2859	G	N7-C5	-5.00	1.36	1.39

All (7364) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	189(D)	C	N3-C4-N4	-102.71	46.10	118.00
1	CA	189(D)	C	N1-C2-O2	44.80	145.78	118.90
1	CA	189(D)	C	N3-C4-N4	-44.60	86.78	118.00
1	AA	189(D)	C	C2-N3-C4	43.68	141.74	119.90
1	AA	189(D)	C	C5-C4-N4	42.13	149.69	120.20
1	AA	189(D)	C	N3-C4-C5	-42.02	105.09	121.90
1	AA	129(A)	G	C5-C6-O6	39.49	152.29	128.60
1	AA	129(A)	G	N1-C6-O6	-38.28	96.93	119.90
1	CA	129(A)	G	N3-C2-N2	37.08	145.85	119.90
1	CA	129(A)	G	C5-C6-O6	36.54	150.53	128.60
1	CA	189(D)	C	C5-C4-N4	34.87	144.61	120.20
1	CA	129(A)	G	N1-C6-O6	-31.33	101.10	119.90
1	AA	189(D)	C	N1-C2-O2	30.45	137.17	118.90
1	CA	129(A)	G	N1-C2-N2	-29.48	89.67	116.20
25	BA	945	A	N1-C6-N6	27.25	134.95	118.60
25	BA	1332	G	C6-C5-N7	-27.14	114.11	130.40
1	AA	129(A)	G	N3-C2-N2	27.08	138.85	119.90
25	BA	1332	G	C2-N3-C4	-26.49	98.65	111.90
25	BA	676	A	C2-N3-C4	-25.74	97.73	110.60
25	BA	945	A	C6-C5-N7	-25.55	114.41	132.30
1	CA	189(D)	C	N3-C2-O2	-25.39	104.13	121.90
25	BA	1021	A	C2-N3-C4	-25.33	97.94	110.60
1	AA	129(A)	G	N1-C2-N2	-25.07	93.64	116.20
25	BA	1332	G	C5-N7-C8	-23.32	92.64	104.30
25	BA	1332	G	N1-C6-O6	22.15	133.19	119.90
25	BA	528	A	C2-N3-C4	-21.71	99.75	110.60
1	AA	1363(A)	A	N1-C6-N6	-21.04	105.98	118.60
1	CA	189(D)	C	C4-C5-C6	-20.88	106.96	117.40
25	BA	676	A	C5-N7-C8	-20.09	93.85	103.90
25	BA	141	A	C5-N7-C8	-20.07	93.87	103.90
25	BA	1142(A)	A	C2-N3-C4	-19.96	100.62	110.60
25	BA	1332	G	C4-C5-N7	19.91	118.77	110.80
1	CA	189(D)	C	C2-N3-C4	19.88	129.84	119.90
25	BA	141	A	N7-C8-N9	19.85	123.72	113.80
25	BA	945	A	C5-N7-C8	-19.58	94.11	103.90
25	BA	1332	G	N7-C8-N9	19.31	122.75	113.10
25	BA	530	G	N3-C4-N9	-18.74	114.76	126.00
25	BA	2287	A	C2-N3-C4	-18.71	101.25	110.60
25	BA	330	A	C2-N3-C4	-18.40	101.40	110.60
25	DA	1332	G	C2-N3-C4	-18.31	102.74	111.90
25	BA	945	A	C4-C5-N7	17.98	119.69	110.70
25	BA	945	A	C4-C5-C6	17.76	125.88	117.00
1	CA	1363(A)	A	N1-C6-N6	-17.69	107.99	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1332	G	N1-C2-N3	17.57	134.44	123.90
25	BA	945	A	C2-N3-C4	-17.41	101.89	110.60
25	BA	528	A	C5-N7-C8	-17.20	95.30	103.90
25	BA	1698	A	C2-N3-C4	-17.05	102.07	110.60
25	DA	1332	G	N3-C4-C5	16.91	137.05	128.60
25	BA	1781	C	C6-N1-C2	16.77	127.01	120.30
25	BA	141	A	C8-N9-C4	-16.64	99.14	105.80
25	BA	1142(A)	A	N3-C4-C5	16.62	138.43	126.80
25	DA	1332	G	N3-C4-N9	-16.60	116.04	126.00
25	BA	1021	A	C5-N7-C8	-16.39	95.70	103.90
25	BA	1021	A	N1-C6-N6	16.09	128.26	118.60
25	BA	933	A	C5-N7-C8	-16.07	95.86	103.90
25	DA	528	A	C2-N3-C4	-15.85	102.67	110.60
25	BA	528	A	N3-C4-C5	15.80	137.86	126.80
1	CA	189(D)	C	N3-C4-C5	15.74	128.19	121.90
1	AA	189(D)	C	N3-C2-O2	-15.72	110.89	121.90
25	BA	676	A	N3-C4-C5	15.63	137.74	126.80
25	DA	945	A	N1-C6-N6	15.56	127.94	118.60
1	CA	129(A)	G	C6-N1-C2	15.37	134.32	125.10
25	BA	1142(A)	A	N3-C4-N9	-15.37	115.11	127.40
25	BA	141	A	C6-C5-N7	-15.16	121.69	132.30
25	BA	2689	U	N1-C2-N3	15.15	123.99	114.90
25	BA	141	A	N1-C6-N6	14.97	127.58	118.60
25	BA	676	A	C4-C5-N7	14.96	118.18	110.70
25	BA	676	A	N7-C8-N9	14.94	121.27	113.80
25	BA	945	A	C5-C6-N6	-14.92	111.76	123.70
25	BA	1332	G	C5-C6-N1	-14.82	104.09	111.50
25	BA	141	A	C2-N3-C4	-14.70	103.25	110.60
25	DA	141	A	N7-C8-N9	14.62	121.11	113.80
25	BA	1332	G	C4-N9-C1'	14.57	145.45	126.50
25	BA	265	A	C5-N7-C8	-14.55	96.63	103.90
25	BA	528	A	N3-C4-N9	-14.46	115.84	127.40
25	BA	2689	U	N3-C4-O4	-14.26	109.42	119.40
25	BA	1021	A	C5-C6-N1	-14.25	110.58	117.70
25	BA	2286	A	N7-C8-N9	14.24	120.92	113.80
25	BA	530	G	N9-C4-C5	14.15	111.06	105.40
25	BA	141	A	C4-C5-N7	14.10	117.75	110.70
25	BA	528	A	C5-C6-N1	-14.07	110.66	117.70
25	BA	2319	G	N1-C6-O6	14.06	128.33	119.90
1	AA	1502	A	N1-C6-N6	13.97	126.98	118.60
25	BA	1332	G	C4-C5-C6	13.87	127.12	118.80
25	BA	1939	U	C5-C4-O4	-13.86	117.58	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1358	U	N3-C4-O4	-13.84	109.71	119.40
25	BA	494	G	C5-C6-O6	-13.82	120.31	128.60
25	BA	528	A	N1-C6-N6	13.77	126.86	118.60
25	BA	1210	A	C2-N3-C4	-13.74	103.73	110.60
25	BA	71	A	C2-N3-C4	-13.72	103.74	110.60
25	DA	141	A	C5-N7-C8	-13.66	97.07	103.90
25	BA	265	A	N7-C8-N9	13.65	120.63	113.80
25	BA	2689	U	C5-C4-O4	13.65	134.09	125.90
25	DA	141	A	N1-C6-N6	13.62	126.77	118.60
25	BA	446	G	N1-C6-O6	13.49	127.99	119.90
25	BA	564	C	C6-N1-C2	-13.47	114.91	120.30
25	BA	139(A)	G	C5-C6-O6	-13.38	120.57	128.60
25	BA	1049	C	C6-N1-C2	-13.36	114.96	120.30
25	BA	945	A	N1-C2-N3	13.34	135.97	129.30
25	BA	1142(A)	A	C5-N7-C8	-13.33	97.23	103.90
25	BA	734	A	N1-C6-N6	13.31	126.59	118.60
25	BA	1142(A)	A	C5-C6-N1	-13.27	111.07	117.70
25	BA	1210	A	C5-N7-C8	-13.23	97.28	103.90
25	BA	1698	A	N1-C6-N6	13.20	126.52	118.60
1	AA	1126	U	C2-N1-C1'	13.12	133.45	117.70
25	BA	614	U	C5-C4-O4	13.11	133.76	125.90
25	BA	308	G	C4-N9-C1'	13.06	143.48	126.50
25	BA	530	G	N3-C2-N2	-13.03	110.78	119.90
1	CA	189(D)	C	N1-C2-N3	-13.03	110.08	119.20
25	BA	681	G	N1-C2-N3	13.01	131.71	123.90
25	BA	784	A	N1-C6-N6	-12.99	110.81	118.60
25	BA	1021	A	N3-C4-C5	12.95	135.86	126.80
25	BA	945	A	N7-C8-N9	12.94	120.27	113.80
25	DA	856	C	C6-N1-C2	-12.94	115.12	120.30
25	BA	975	C	N3-C4-N4	-12.86	109.00	118.00
25	DA	2286	A	N1-C6-N6	12.83	126.30	118.60
25	BA	463	G	N1-C6-O6	-12.82	112.21	119.90
25	BA	474	G	C8-N9-C4	-12.82	101.27	106.40
25	BA	2454	G	N1-C6-O6	-12.77	112.24	119.90
25	BA	308	G	C8-N9-C1'	-12.75	110.42	127.00
25	BA	463	G	C5-C6-O6	12.71	136.22	128.60
25	BA	2689	U	C5-C6-N1	-12.66	116.37	122.70
25	BA	933	A	N7-C8-N9	12.63	120.12	113.80
1	CA	1358	U	N3-C4-O4	-12.61	110.57	119.40
25	BA	1332	G	C8-N9-C1'	-12.57	110.65	127.00
1	AA	266	G	C6-C5-N7	-12.56	122.86	130.40
25	BA	1204	A	C2-N3-C4	-12.54	104.33	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	139(A)	G	N3-C4-N9	12.52	133.51	126.00
25	BA	530	G	C8-N9-C4	-12.51	101.40	106.40
25	DA	1698	A	C2-N3-C4	-12.49	104.36	110.60
25	BA	837	C	C6-N1-C2	-12.48	115.31	120.30
25	DA	450	G	C5-C6-N1	-12.47	105.26	111.50
25	BA	34	C	N1-C2-O2	12.46	126.38	118.90
25	BA	1558	A	N1-C6-N6	12.34	126.00	118.60
25	BA	933	A	C4-C5-N7	12.31	116.86	110.70
25	BA	1170	G	C8-N9-C4	-12.25	101.50	106.40
25	BA	2286	A	C8-N9-C4	-12.21	100.92	105.80
25	BA	2287	A	N1-C6-N6	12.21	125.93	118.60
25	DA	141	A	C6-C5-N7	-12.21	123.75	132.30
25	BA	2502	G	N1-C6-O6	-12.21	112.58	119.90
25	DA	1558	A	C2-N3-C4	-12.18	104.51	110.60
25	BA	587	C	C6-N1-C2	-12.18	115.43	120.30
25	BA	1021	A	N1-C2-N3	12.17	135.38	129.30
25	BA	2286	A	C6-C5-N7	-12.16	123.79	132.30
25	BA	847	U	C5-C6-N1	-12.13	116.63	122.70
25	BA	2308	G	C4-C5-N7	12.08	115.63	110.80
25	DA	271(M)	G	N3-C4-N9	12.07	133.24	126.00
25	BA	570	G	N1-C6-O6	-12.06	112.67	119.90
25	BA	2286	A	N1-C2-N3	12.02	135.31	129.30
25	BA	706	A	C8-N9-C4	11.92	110.57	105.80
25	DA	975	C	C2-N1-C1'	11.84	131.82	118.80
25	BA	2442	C	C5-C6-N1	-11.82	115.09	121.00
25	BA	2767	C	N3-C2-O2	-11.81	113.63	121.90
25	BA	330	A	N1-C2-N3	11.77	135.18	129.30
25	BA	2374	C	C6-N1-C2	11.77	125.01	120.30
25	BA	265	A	C2-N3-C4	-11.74	104.73	110.60
25	BA	1021	A	C6-C5-N7	-11.73	124.09	132.30
25	BA	259	G	N1-C6-O6	11.71	126.93	119.90
25	BA	1106	G	C6-N1-C2	-11.69	118.08	125.10
25	BA	528	A	C4-C5-N7	11.69	116.55	110.70
25	BA	676	A	N3-C4-N9	-11.66	118.08	127.40
25	BA	1021	A	N7-C8-N9	11.61	119.61	113.80
25	BA	1948	G	N1-C6-O6	-11.57	112.96	119.90
26	BB	80	U	C5-C4-O4	11.56	132.84	125.90
1	AA	1502	A	C6-C5-N7	-11.56	124.21	132.30
25	BA	1558	A	C2-N3-C4	-11.55	104.82	110.60
25	BA	265	A	C6-C5-N7	-11.52	124.23	132.30
25	BA	676	A	N1-C6-N6	11.48	125.49	118.60
25	BA	1698	A	C6-C5-N7	-11.47	124.27	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	494	G	N1-C6-O6	11.46	126.77	119.90
25	BA	2828	C	C6-N1-C2	11.45	124.88	120.30
25	BA	127	A	C8-N9-C4	11.44	110.38	105.80
25	BA	265	A	C8-N9-C4	-11.41	101.24	105.80
26	DB	115	G	C8-N9-C4	11.40	110.96	106.40
25	BA	1021	A	C4-C5-N7	11.39	116.40	110.70
25	DA	2829	C	C6-N1-C2	11.37	124.85	120.30
25	BA	1698	A	C5-N7-C8	-11.36	98.22	103.90
25	BA	2538	C	C6-N1-C2	11.35	124.84	120.30
25	BA	1832	C	C6-N1-C2	-11.32	115.77	120.30
26	BB	64	C	C6-N1-C2	11.29	124.82	120.30
1	AA	1363(A)	A	C5-C6-N6	11.28	132.73	123.70
25	BA	2574	G	C5-C6-O6	-11.28	121.83	128.60
25	BA	1170	G	N7-C8-N9	11.26	118.73	113.10
25	DA	1653	G	N3-C4-N9	11.25	132.75	126.00
25	BA	1106	G	N1-C2-N3	11.24	130.65	123.90
25	BA	1201	C	N3-C2-O2	11.21	129.75	121.90
25	DA	450	G	C4-C5-N7	-11.20	106.32	110.80
25	BA	1983	C	N3-C4-C5	11.19	126.38	121.90
25	BA	2869	G	C8-N9-C4	-11.18	101.93	106.40
25	DA	1021	A	C2-N3-C4	-11.18	105.01	110.60
25	BA	530	G	N3-C4-C5	11.14	134.17	128.60
25	BA	975	C	C5-C6-N1	-11.14	115.43	121.00
25	BA	308	G	N3-C4-N9	11.13	132.68	126.00
1	AA	266	G	N1-C6-O6	11.12	126.57	119.90
25	BA	1372	U	N3-C4-O4	11.08	127.16	119.40
25	BA	2319	G	C5-C6-O6	-11.08	121.95	128.60
25	BA	2624	G	C5-C6-O6	-11.07	121.96	128.60
25	DA	1607	C	N1-C2-O2	11.02	125.51	118.90
25	BA	2286	A	C4-C5-C6	11.01	122.50	117.00
25	BA	1257	C	N3-C2-O2	-11.00	114.20	121.90
25	BA	1989	G	N9-C4-C5	-10.99	101.00	105.40
25	BA	308	G	C6-C5-N7	-10.98	123.81	130.40
25	BA	2319	G	C6-C5-N7	-10.97	123.81	130.40
25	DA	945	A	C6-C5-N7	-10.97	124.62	132.30
25	BA	655	A	N7-C8-N9	10.97	119.28	113.80
25	BA	676	A	N1-C2-N3	10.96	134.78	129.30
25	DA	2326	C	N3-C4-C5	-10.95	117.52	121.90
26	DB	6	C	C6-N1-C2	10.95	124.68	120.30
25	BA	962	G	N1-C6-O6	10.93	126.46	119.90
25	BA	265	A	C4-C5-N7	10.91	116.16	110.70
1	CA	1149	C	C6-N1-C2	-10.89	115.94	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2442	C	C2-N3-C4	-10.89	114.46	119.90
25	BA	1607	C	N3-C4-N4	10.86	125.60	118.00
25	BA	446	G	C5-C6-O6	-10.86	122.08	128.60
26	BB	104	U	C2-N3-C4	-10.86	120.48	127.00
25	BA	527	C	C5-C4-N4	10.85	127.79	120.20
25	DA	2286	A	C6-C5-N7	-10.84	124.71	132.30
26	BB	41	U	N3-C2-O2	-10.84	114.61	122.20
25	BA	2443	C	C5-C4-N4	-10.82	112.62	120.20
25	BA	659	C	C6-N1-C2	10.82	124.63	120.30
25	BA	933	A	C2-N3-C4	-10.81	105.19	110.60
25	BA	2286	A	C5-N7-C8	-10.80	98.50	103.90
25	BA	2002	G	C8-N9-C4	10.80	110.72	106.40
25	BA	271(J)	C	C6-N1-C2	10.78	124.61	120.30
25	BA	133	C	C5-C6-N1	-10.78	115.61	121.00
25	BA	2578	G	C8-N9-C4	10.78	110.71	106.40
25	BA	655	A	C8-N9-C4	-10.77	101.49	105.80
25	BA	856	C	C6-N1-C2	-10.76	116.00	120.30
25	DA	141	A	C4-C5-N7	10.75	116.08	110.70
1	AA	1502	A	C4-C5-N7	10.74	116.07	110.70
25	BA	2503	A	C5-C6-N6	-10.73	115.11	123.70
25	BA	1519	G	C8-N9-C4	-10.71	102.11	106.40
1	CA	728	A	C8-N9-C4	-10.69	101.52	105.80
25	BA	2510	C	C6-N1-C2	10.68	124.57	120.30
23	AV	76	A	C4-C5-C6	-10.66	111.67	117.00
25	BA	133	C	C6-N1-C2	10.66	124.56	120.30
25	BA	2689	U	C2-N3-C4	-10.61	120.63	127.00
25	DA	994	C	C6-N1-C1'	-10.61	108.07	120.80
25	BA	587	C	N3-C2-O2	-10.61	114.47	121.90
1	AA	1502	A	C2-N3-C4	-10.59	105.30	110.60
25	BA	2511	U	C4-C5-C6	10.58	126.05	119.70
25	BA	1204	A	C6-C5-N7	-10.58	124.89	132.30
1	AA	1126	U	C5-C6-N1	10.57	127.99	122.70
25	BA	2441	C	N3-C2-O2	-10.56	114.51	121.90
25	BA	1698	A	N1-C2-N3	10.55	134.57	129.30
25	DA	1210	A	N1-C6-N6	10.55	124.93	118.60
25	BA	1106	G	N3-C4-C5	-10.55	123.33	128.60
25	DA	2628	C	C6-N1-C2	10.54	124.52	120.30
25	BA	528	A	N7-C8-N9	10.53	119.07	113.80
1	AA	344	A	C8-N9-C4	-10.51	101.60	105.80
25	BA	236	C	C5-C6-N1	-10.50	115.75	121.00
25	BA	1343	G	N1-C6-O6	-10.49	113.60	119.90
25	BA	513	A	C8-N9-C4	-10.49	101.60	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	928	G	N1-C6-O6	10.48	126.19	119.90
25	BA	2581	G	C8-N9-C4	-10.47	102.21	106.40
25	DA	2587	A	N1-C6-N6	10.46	124.87	118.60
25	DA	932	G	N3-C4-N9	-10.45	119.73	126.00
25	BA	1314	C	N1-C2-O2	10.45	125.17	118.90
25	BA	1939	U	N3-C4-C5	10.44	120.87	114.60
25	BA	645	C	C5-C6-N1	10.43	126.22	121.00
25	BA	827	U	C5-C6-N1	-10.43	117.48	122.70
25	BA	843	G	C8-N9-C4	10.43	110.57	106.40
25	BA	564	C	C5-C6-N1	10.42	126.21	121.00
25	BA	1198	U	N3-C2-O2	-10.41	114.91	122.20
25	BA	330	A	N3-C4-C5	10.39	134.08	126.80
25	BA	220	G	N1-C6-O6	10.39	126.14	119.90
25	BA	45	C	N1-C2-O2	-10.39	112.67	118.90
1	AA	189(D)	C	N1-C2-N3	-10.37	111.94	119.20
1	CA	266	G	C5-N7-C8	-10.37	99.12	104.30
25	BA	2605	U	C5-C4-O4	10.35	132.11	125.90
25	BA	2064	C	C6-N1-C2	10.35	124.44	120.30
25	DA	141	A	C8-N9-C4	-10.33	101.67	105.80
25	BA	1251	C	N3-C4-C5	-10.31	117.78	121.90
1	CA	1363(A)	A	C5-C6-N6	10.31	131.95	123.70
25	DA	676	A	C2-N3-C4	-10.30	105.45	110.60
25	BA	1187	G	C8-N9-C4	-10.30	102.28	106.40
25	BA	761	A	N1-C6-N6	10.29	124.78	118.60
25	DA	748	G	N1-C6-O6	-10.28	113.73	119.90
25	BA	2866	U	C5-C6-N1	-10.28	117.56	122.70
25	BA	1106	G	C5-C6-N1	10.26	116.63	111.50
1	CA	899	C	C6-N1-C2	10.25	124.40	120.30
25	BA	2625	G	N1-C6-O6	-10.24	113.75	119.90
25	BA	437	G	C4-C5-N7	10.23	114.89	110.80
25	BA	1698	A	C5-C6-N1	-10.23	112.59	117.70
1	AA	1145	C	C2-N3-C4	10.20	125.00	119.90
1	AA	1530	G	N3-C4-C5	10.19	133.69	128.60
25	BA	1187	G	N9-C4-C5	10.18	109.47	105.40
25	BA	1619	G	C8-N9-C4	-10.18	102.33	106.40
25	BA	1807	G	N1-C6-O6	10.17	126.00	119.90
25	BA	527	C	N3-C4-N4	-10.17	110.88	118.00
25	BA	2276	G	C8-N9-C4	-10.15	102.34	106.40
25	BA	2380	C	C5-C6-N1	-10.15	115.93	121.00
25	DA	1653	G	C8-N9-C1'	-10.14	113.81	127.00
25	DA	1703	G	N1-C6-O6	10.14	125.99	119.90
25	BA	2350	C	C6-N1-C2	10.14	124.36	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	567	A	N1-C6-N6	10.13	124.68	118.60
25	BA	1021	A	N3-C4-N9	-10.11	119.31	127.40
1	AA	1506	U	N3-C4-O4	10.09	126.46	119.40
25	BA	2866	U	C4-C5-C6	10.09	125.75	119.70
25	BA	725	G	C5-C6-N1	-10.08	106.46	111.50
25	BA	2363	C	C6-N1-C2	10.07	124.33	120.30
1	CA	299	G	N1-C6-O6	10.07	125.94	119.90
25	BA	205	G	N3-C4-N9	10.06	132.04	126.00
1	AA	896	C	C6-N1-C2	10.06	124.32	120.30
1	AA	1502	A	N9-C4-C5	-10.05	101.78	105.80
25	BA	1210	A	N7-C8-N9	10.05	118.83	113.80
25	DA	945	A	N9-C4-C5	-10.04	101.78	105.80
25	DA	1979	C	C6-N1-C2	-10.03	116.29	120.30
25	BA	86	C	N3-C4-C5	10.03	125.91	121.90
25	BA	2287	A	C5-N7-C8	-10.03	98.89	103.90
1	CA	400	C	C6-N1-C2	10.02	124.31	120.30
1	AA	1358	U	C5-C4-O4	10.00	131.90	125.90
25	BA	1251	C	C4-C5-C6	9.99	122.40	117.40
1	AA	817	C	C6-N1-C2	9.98	124.29	120.30
25	BA	980	A	C8-N9-C4	-9.97	101.81	105.80
25	DA	566	U	C5-C6-N1	-9.97	117.72	122.70
25	DA	994	C	C2-N1-C1'	9.97	129.76	118.80
25	BA	1819	A	N1-C6-N6	-9.96	112.62	118.60
25	BA	1207	C	C5-C6-N1	-9.95	116.02	121.00
1	CA	893	C	C6-N1-C2	9.96	124.28	120.30
25	DA	1332	G	N3-C2-N2	-9.95	112.94	119.90
25	DA	945	A	C4-C5-N7	9.95	115.67	110.70
25	BA	2380	C	C2-N3-C4	-9.93	114.94	119.90
25	BA	2409	G	N1-C6-O6	-9.93	113.94	119.90
25	BA	826	U	C5-C6-N1	-9.93	117.74	122.70
26	BB	81	G	N1-C2-N3	9.91	129.85	123.90
25	DA	1204	A	C2-N3-C4	-9.91	105.65	110.60
26	BB	91	C	C6-N1-C2	9.90	124.26	120.30
25	BA	2371	G	C5-C6-O6	-9.90	122.66	128.60
25	BA	1350	C	N3-C4-C5	9.90	125.86	121.90
25	BA	1295	C	N3-C4-C5	9.89	125.86	121.90
25	BA	575	A	C4-C5-C6	9.89	121.94	117.00
25	DA	1204	A	N1-C6-N6	9.89	124.53	118.60
1	AA	317	G	N1-C6-O6	9.88	125.83	119.90
25	BA	527	C	C6-N1-C2	-9.87	116.35	120.30
25	BA	446	G	N9-C4-C5	-9.86	101.46	105.40
25	BA	2253	G	N1-C6-O6	9.86	125.81	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	271(M)	G	N3-C4-C5	-9.86	123.67	128.60
25	DA	668	G	C2-N3-C4	-9.85	106.97	111.90
25	BA	126	A	C8-N9-C4	-9.85	101.86	105.80
23	CV	76	A	C8-N9-C4	9.84	109.74	105.80
1	AA	1502	A	C5-N7-C8	-9.84	98.98	103.90
26	BB	53	A	C8-N9-C4	-9.83	101.87	105.80
25	DA	2791	C	C6-N1-C2	-9.82	116.37	120.30
25	BA	1332	G	C5-C6-O6	-9.82	122.71	128.60
25	BA	22	C	C6-N1-C2	9.81	124.23	120.30
25	DA	528	A	N1-C2-N3	9.81	134.21	129.30
25	DA	945	A	C2-N3-C4	-9.81	105.70	110.60
25	DA	2751	G	N3-C4-N9	9.79	131.88	126.00
25	BA	652(H)	C	C5-C6-N1	9.79	125.89	121.00
25	DA	1932	A	C8-N9-C4	-9.79	101.89	105.80
1	AA	839	U	N1-C2-O2	9.78	129.65	122.80
25	DA	2056	G	N1-C6-O6	9.78	125.77	119.90
25	BA	265	A	N1-C6-N6	9.78	124.47	118.60
25	BA	2505	G	C5-C6-N1	-9.77	106.61	111.50
25	BA	1295	C	C6-N1-C2	9.77	124.21	120.30
25	DA	1332	G	C8-N9-C1'	9.76	139.69	127.00
1	AA	811	C	C6-N1-C2	9.75	124.20	120.30
25	BA	2308	G	C5-N7-C8	-9.75	99.43	104.30
1	AA	117	G	N1-C6-O6	9.74	125.75	119.90
1	CA	1279	A	C8-N9-C4	-9.74	101.91	105.80
25	DA	676	A	C5-N7-C8	-9.74	99.03	103.90
25	BA	2030	A	C4-C5-C6	9.72	121.86	117.00
25	DA	271(M)	G	C8-N9-C1'	-9.72	114.37	127.00
25	DA	1914	C	N3-C2-O2	-9.71	115.10	121.90
25	DA	480	A	C8-N9-C4	-9.71	101.92	105.80
25	DA	271(M)	G	C4-N9-C1'	9.70	139.12	126.50
25	BA	495	G	N3-C2-N2	-9.70	113.11	119.90
25	BA	2287	A	C6-C5-N7	-9.70	125.51	132.30
1	AA	1126	U	C5-C4-O4	-9.70	120.08	125.90
25	BA	71	A	C5-N7-C8	-9.70	99.05	103.90
25	BA	1983	C	C2-N3-C4	-9.69	115.05	119.90
25	BA	2540	C	C6-N1-C2	9.69	124.18	120.30
25	BA	2040	C	C5-C4-N4	-9.68	113.42	120.20
25	BA	205	G	N9-C4-C5	-9.68	101.53	105.40
25	BA	2037	G	N1-C2-N2	-9.67	107.50	116.20
25	BA	2539	C	C6-N1-C2	9.67	124.17	120.30
25	BA	686	G	C6-C5-N7	-9.67	124.60	130.40
25	BA	693	C	N3-C2-O2	-9.64	115.15	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	676	A	C6-C5-N7	-9.64	125.55	132.30
25	BA	655	A	C5-N7-C8	-9.63	99.08	103.90
1	AA	36	C	C6-N1-C2	-9.62	116.45	120.30
25	DA	459	U	N3-C4-O4	-9.63	112.66	119.40
1	CA	1279	A	N7-C8-N9	9.61	118.61	113.80
25	BA	962	G	C5-C6-O6	-9.60	122.84	128.60
25	BA	745	G	C5-C6-O6	-9.60	122.84	128.60
25	BA	1001	A	N1-C2-N3	-9.60	124.50	129.30
25	DA	330	A	N1-C6-N6	9.58	124.35	118.60
25	BA	1843	C	C6-N1-C2	9.57	124.13	120.30
25	BA	2463	C	C6-N1-C2	9.56	124.12	120.30
25	BA	1333	C	C5-C4-N4	-9.56	113.51	120.20
25	BA	2287	A	N3-C4-C5	9.55	133.49	126.80
25	DA	1698	A	C5-N7-C8	-9.53	99.14	103.90
25	BA	148	C	C5-C6-N1	-9.53	116.24	121.00
25	BA	127	A	N7-C8-N9	-9.53	109.04	113.80
25	BA	945	A	N9-C4-C5	-9.52	101.99	105.80
25	BA	1698	A	C4-C5-N7	9.52	115.46	110.70
25	BA	271(J)	C	N3-C4-C5	9.50	125.70	121.90
25	BA	437	G	C6-C5-N7	-9.50	124.70	130.40
25	DA	504	U	C2-N1-C1'	9.49	129.09	117.70
25	BA	126	A	N9-C4-C5	9.48	109.59	105.80
25	BA	850	C	N3-C4-C5	9.48	125.69	121.90
1	AA	266	G	C4-C5-N7	9.47	114.59	110.80
25	DA	2502	G	C6-C5-N7	-9.47	124.72	130.40
25	BA	2442	C	N3-C4-C5	9.46	125.69	121.90
25	BA	2283	C	N1-C2-O2	-9.46	113.23	118.90
25	DA	1807	G	C8-N9-C4	9.45	110.18	106.40
25	BA	1045	A	C2-N3-C4	9.44	115.32	110.60
25	BA	2375	G	N7-C8-N9	-9.44	108.38	113.10
25	BA	942	G	C4-C5-N7	-9.43	107.03	110.80
25	BA	1201	C	N3-C4-N4	9.43	124.60	118.00
25	BA	199	A	N1-C6-N6	-9.43	112.94	118.60
25	BA	2375	G	C8-N9-C4	9.43	110.17	106.40
25	BA	2443	C	N3-C4-N4	9.41	124.59	118.00
25	BA	2379	G	C8-N9-C4	9.40	110.16	106.40
25	BA	1201	C	C5-C4-N4	-9.40	113.62	120.20
25	BA	1106	G	C8-N9-C4	-9.40	102.64	106.40
25	BA	2053	G	N3-C2-N2	-9.38	113.33	119.90
25	BA	956	G	C5-C6-N1	-9.38	106.81	111.50
1	AA	129(A)	G	C8-N9-C4	-9.37	102.65	106.40
25	BA	848	G	C8-N9-C4	9.37	110.15	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1959	G	N1-C6-O6	-9.37	114.28	119.90
25	BA	694	U	N3-C2-O2	-9.36	115.64	122.20
25	BA	1142(A)	A	C6-N1-C2	9.37	124.22	118.60
26	BB	6	C	C6-N1-C2	9.36	124.05	120.30
25	DA	1269	A	N1-C6-N6	9.36	124.22	118.60
25	BA	186	G	N1-C6-O6	9.36	125.52	119.90
25	BA	652(H)	C	N1-C2-O2	9.36	124.51	118.90
25	DA	2447	G	C5-C6-O6	-9.36	122.99	128.60
25	BA	2426	A	C8-N9-C4	-9.35	102.06	105.80
25	BA	1408	C	N1-C2-O2	-9.35	113.29	118.90
1	CA	266	G	C4-C5-N7	9.35	114.54	110.80
25	BA	2869	G	N9-C4-C5	9.35	109.14	105.40
25	DA	1899	G	C5-C6-O6	-9.34	122.99	128.60
25	BA	1245	G	C4-C5-N7	-9.34	107.06	110.80
25	BA	2379	G	C5-C6-O6	-9.34	123.00	128.60
25	DA	1269	A	C8-N9-C4	9.33	109.53	105.80
25	BA	2002	G	N7-C8-N9	-9.32	108.44	113.10
25	BA	2002	G	C5-C6-O6	-9.32	123.01	128.60
25	BA	141	A	N1-C2-N3	9.31	133.96	129.30
25	BA	1304	C	N3-C4-C5	9.31	125.62	121.90
1	AA	898	G	C8-N9-C4	9.31	110.12	106.40
23	AV	13	C	C6-N1-C2	-9.31	116.58	120.30
25	BA	2319	G	C4-C5-N7	9.31	114.52	110.80
25	BA	74	A	N1-C6-N6	-9.30	113.02	118.60
25	DA	1327	C	C6-N1-C2	-9.31	116.58	120.30
25	BA	814	C	C2-N3-C4	-9.30	115.25	119.90
25	DA	1269	A	N9-C4-C5	-9.30	102.08	105.80
25	BA	1807	G	C5-C6-O6	-9.29	123.02	128.60
25	DA	236	C	C6-N1-C2	9.29	124.02	120.30
1	AA	1195	C	C6-N1-C2	-9.28	116.59	120.30
25	BA	676	A	C5-C6-N1	-9.28	113.06	117.70
25	BA	2354	G	N1-C6-O6	-9.27	114.33	119.90
25	DA	1252	G	C5-C6-O6	-9.27	123.04	128.60
25	BA	942	G	N9-C4-C5	9.26	109.11	105.40
25	BA	2253	G	C5-C6-O6	-9.26	123.04	128.60
53	B7	47	ARG	NE-CZ-NH1	9.26	124.93	120.30
25	BA	472	A	N1-C6-N6	9.25	124.15	118.60
25	BA	1937	A	N1-C2-N3	9.25	133.92	129.30
25	BA	2002	G	N9-C4-C5	-9.25	101.70	105.40
25	BA	474	G	N7-C8-N9	9.24	117.72	113.10
25	BA	1278	A	N1-C2-N3	9.24	133.92	129.30
25	DA	975	C	C6-N1-C1'	-9.24	109.72	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1232	G	C5-C6-N1	9.23	116.12	111.50
1	AA	189(D)	C	C6-N1-C2	-9.22	116.61	120.30
25	BA	734	A	C4-C5-N7	9.22	115.31	110.70
25	DA	2599	G	C4-C5-N7	-9.22	107.11	110.80
25	DA	736	C	N3-C2-O2	9.22	128.35	121.90
25	BA	1992	G	N3-C4-C5	-9.22	123.99	128.60
1	AA	266	G	C5-C6-O6	-9.21	123.07	128.60
25	BA	2286	A	N1-C6-N6	9.21	124.13	118.60
25	BA	776	G	C5-C6-O6	9.21	134.12	128.60
25	BA	22	C	C5-C6-N1	-9.20	116.40	121.00
25	DA	337	C	C5-C6-N1	-9.20	116.40	121.00
25	DA	1558	A	C5-C6-N1	-9.20	113.10	117.70
1	CA	194	C	C6-N1-C2	-9.19	116.62	120.30
23	AV	1	C	C6-N1-C2	-9.19	116.62	120.30
25	DA	772	C	N3-C4-C5	9.19	125.58	121.90
25	BA	139(A)	G	N3-C4-C5	-9.19	124.01	128.60
25	BA	1310	G	C5-C6-O6	-9.19	123.09	128.60
1	CA	1112	C	C6-N1-C2	-9.18	116.63	120.30
25	DA	22	C	C6-N1-C2	9.18	123.97	120.30
25	BA	2502	G	N3-C2-N2	9.18	126.32	119.90
25	BA	2058	A	N1-C2-N3	9.17	133.89	129.30
25	DA	1813	G	C5-C6-O6	-9.17	123.10	128.60
25	BA	1314	C	N3-C4-C5	9.16	125.57	121.90
25	BA	2298	A	N1-C6-N6	-9.16	113.10	118.60
25	BA	2378	A	C2-N3-C4	-9.15	106.02	110.60
25	DA	2689	U	C5-C6-N1	-9.15	118.12	122.70
25	BA	1030	G	C8-N9-C4	9.15	110.06	106.40
25	BA	220	G	C5-C6-O6	-9.14	123.11	128.60
25	BA	2287	A	C4-C5-N7	9.13	115.27	110.70
25	BA	1582	C	C6-N1-C2	9.12	123.95	120.30
25	DA	2686	G	C8-N9-C4	-9.12	102.75	106.40
25	BA	627	A	C8-N9-C4	9.12	109.45	105.80
25	BA	2088	G	C2-N3-C4	-9.12	107.34	111.90
25	DA	2058	A	C8-N9-C4	-9.12	102.15	105.80
25	BA	2239	G	C5-C6-O6	-9.12	123.13	128.60
25	DA	2056	G	C5-C6-O6	-9.12	123.13	128.60
25	BA	1348	G	C5-C6-O6	-9.12	123.13	128.60
25	DA	2575	C	N1-C2-O2	9.12	124.37	118.90
25	BA	1939	U	C6-N1-C2	9.10	126.46	121.00
25	BA	1235	G	C5-C6-O6	9.10	134.06	128.60
25	BA	1487	G	C8-N9-C4	-9.10	102.76	106.40
25	BA	1204	A	C5-N7-C8	-9.09	99.35	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1769	G	C6-C5-N7	-9.09	124.95	130.40
25	BA	2005	A	C5-C6-N6	-9.08	116.44	123.70
25	BA	833	U	N1-C2-O2	-9.08	116.45	122.80
25	BA	1210	A	C4-C5-N7	9.08	115.24	110.70
25	BA	175	G	C8-N9-C4	9.07	110.03	106.40
25	BA	465	G	N1-C2-N2	-9.06	108.05	116.20
25	DA	298	G	N1-C6-O6	9.06	125.34	119.90
1	AA	483	C	C6-N1-C2	9.06	123.92	120.30
25	DA	2598	A	N1-C6-N6	9.05	124.03	118.60
25	BA	122	G	N1-C6-O6	9.05	125.33	119.90
1	CA	1519	A	C8-N9-C4	-9.05	102.18	105.80
25	DA	530	G	C8-N9-C4	-9.05	102.78	106.40
25	BA	1268	A	C2-N3-C4	-9.04	106.08	110.60
25	BA	2287	A	C5-C6-N1	-9.04	113.18	117.70
25	DA	1332	G	N1-C2-N3	9.04	129.32	123.90
25	BA	1258	C	C6-N1-C2	9.04	123.92	120.30
25	BA	1325	G	C5-C6-O6	-9.04	123.18	128.60
25	BA	24	G	C5-C6-N1	-9.03	106.98	111.50
25	DA	1999	C	C6-N1-C2	9.03	123.91	120.30
25	BA	72	U	C5-C6-N1	-9.03	118.19	122.70
26	BB	100	A	C2-N3-C4	-9.03	106.08	110.60
25	BA	2364	C	C6-N1-C2	9.03	123.91	120.30
25	BA	669	G	C8-N9-C4	9.02	110.01	106.40
1	CA	1358	U	C2-N3-C4	-9.02	121.59	127.00
25	BA	2730	C	C5-C6-N1	-9.01	116.49	121.00
25	BA	815	C	C5-C6-N1	-9.01	116.50	121.00
25	DA	2447	G	N1-C6-O6	9.00	125.30	119.90
25	DA	2751	G	C4-N9-C1'	8.99	138.19	126.50
25	BA	975	C	C5-C4-N4	8.99	126.49	120.20
25	DA	1827	C	N3-C2-O2	-8.99	115.61	121.90
25	BA	645	C	N1-C2-O2	8.98	124.29	118.90
25	BA	1204	A	N1-C2-N3	8.98	133.79	129.30
25	DA	265	A	C6-C5-N7	-8.98	126.02	132.30
25	BA	390	A	C8-N9-C4	8.97	109.39	105.80
25	BA	784	A	N9-C4-C5	8.97	109.39	105.80
25	BA	271(M)	G	N3-C4-N9	8.97	131.38	126.00
1	AA	1414	U	N3-C2-O2	-8.96	115.92	122.20
26	BB	85	G	N3-C4-N9	8.96	131.38	126.00
25	BA	2286	A	C4-N9-C1'	8.96	142.43	126.30
25	BA	2615	U	N3-C4-O4	-8.96	113.13	119.40
25	DA	1210	A	C5-N7-C8	-8.96	99.42	103.90
25	DA	1698	A	C4-C5-N7	8.96	115.18	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	461	C	N1-C2-O2	-8.95	113.53	118.90
26	BB	115	G	C8-N9-C4	8.95	109.98	106.40
25	BA	2005	A	N1-C6-N6	8.94	123.96	118.60
25	BA	1049	C	C5-C6-N1	8.93	125.47	121.00
27	BD	239	ARG	N-CA-C	-8.93	86.88	111.00
25	BA	843	G	N7-C8-N9	-8.93	108.64	113.10
25	BA	2574	G	N1-C6-O6	8.93	125.25	119.90
25	DA	1645	G	N1-C6-O6	-8.93	114.55	119.90
25	BA	1210	A	C6-C5-N7	-8.92	126.06	132.30
25	DA	71	A	N7-C8-N9	8.91	118.26	113.80
25	BA	2239	G	C4-C5-N7	8.91	114.36	110.80
25	BA	827	U	C6-N1-C2	8.91	126.34	121.00
1	CA	266	G	N7-C8-N9	8.91	117.55	113.10
25	BA	2772	C	C5-C6-N1	-8.90	116.55	121.00
25	BA	1373	A	C6-N1-C2	-8.90	113.26	118.60
25	BA	798	G	N1-C2-N3	8.90	129.24	123.90
25	DA	912	C	C6-N1-C2	-8.90	116.74	120.30
25	BA	945	A	C8-N9-C1'	-8.90	111.69	127.70
25	BA	2380	C	C6-N1-C2	8.90	123.86	120.30
25	BA	330	A	C5-N7-C8	-8.89	99.45	103.90
25	BA	1219	G	N3-C4-C5	8.89	133.04	128.60
25	BA	1617	C	N1-C2-O2	-8.89	113.57	118.90
25	BA	2026	C	C6-N1-C2	8.87	123.85	120.30
25	BA	2767	C	C4-C5-C6	8.87	121.84	117.40
25	BA	1135	C	C6-N1-C2	8.87	123.85	120.30
25	DA	962	G	C8-N9-C4	-8.87	102.85	106.40
25	DA	2253	G	N9-C4-C5	-8.86	101.85	105.40
25	BA	19	C	N1-C2-O2	-8.86	113.59	118.90
25	DA	145	G	C8-N9-C4	8.86	109.94	106.40
1	AA	1126	U	C6-N1-C1'	-8.85	108.81	121.20
25	BA	1350	C	C6-N1-C2	8.85	123.84	120.30
25	BA	2239	G	N1-C6-O6	8.84	125.20	119.90
25	BA	2622	C	C6-N1-C2	8.84	123.83	120.30
38	BS	96	GLY	N-CA-C	-8.83	91.02	113.10
25	BA	2468	G	N1-C6-O6	8.83	125.20	119.90
25	BA	945	A	C5-C6-N1	-8.83	113.29	117.70
25	BA	1785	A	N1-C6-N6	8.82	123.89	118.60
1	AA	1530	G	C4-N9-C1'	-8.82	115.03	126.50
25	BA	1332	G	N3-C4-C5	8.82	133.01	128.60
25	BA	1721	G	C8-N9-C4	-8.82	102.87	106.40
25	DA	528	A	N3-C4-N9	-8.82	120.35	127.40
25	BA	2442	C	C6-N1-C2	8.81	123.83	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	802	A	C8-N9-C4	-8.81	102.27	105.80
25	BA	204	A	N1-C2-N3	8.81	133.71	129.30
25	BA	645	C	C2-N3-C4	8.81	124.31	119.90
25	BA	1989	G	C6-C5-N7	-8.81	125.11	130.40
25	BA	1290	C	C6-N1-C2	-8.81	116.78	120.30
25	BA	1253	A	C8-N9-C4	8.81	109.32	105.80
25	BA	685	A	C5-N7-C8	-8.80	99.50	103.90
1	AA	804	U	C5-C6-N1	-8.79	118.30	122.70
25	BA	671	C	N3-C4-C5	-8.78	118.39	121.90
25	BA	1989	G	C2-N3-C4	-8.78	107.51	111.90
25	BA	465	G	N3-C2-N2	8.78	126.05	119.90
25	BA	1207	C	C2-N3-C4	-8.78	115.51	119.90
25	BA	2884	U	C2-N1-C1'	-8.78	107.17	117.70
25	BA	734	A	C5-C6-N6	-8.77	116.68	123.70
25	BA	2002	G	N1-C6-O6	8.77	125.16	119.90
25	BA	2502	G	C5-C6-O6	8.77	133.86	128.60
1	AA	1255	G	C6-C5-N7	-8.77	125.14	130.40
1	AA	1358	U	C2-N3-C4	-8.77	121.74	127.00
25	BA	404	C	C2-N1-C1'	-8.77	109.16	118.80
25	BA	975	C	N3-C2-O2	-8.76	115.77	121.90
1	AA	1255	G	N9-C4-C5	-8.76	101.90	105.40
25	BA	1193	G	N1-C2-N3	8.76	129.16	123.90
25	BA	587	C	N1-C2-N3	8.76	125.33	119.20
25	BA	2459	A	C5-N7-C8	-8.76	99.52	103.90
25	DA	933	A	N7-C8-N9	8.76	118.18	113.80
25	BA	530	G	C2-N3-C4	-8.75	107.52	111.90
25	BA	2244	U	C5-C6-N1	-8.75	118.33	122.70
4	CD	188	LEU	CA-CB-CG	8.75	135.42	115.30
25	BA	2040	C	N3-C4-N4	8.74	124.12	118.00
25	BA	90	U	N3-C4-O4	8.74	125.52	119.40
25	BA	1573	G	N3-C4-C5	8.74	132.97	128.60
25	DA	2828	C	C6-N1-C2	8.74	123.80	120.30
26	DB	54	G	C8-N9-C4	-8.74	102.91	106.40
25	BA	1664	A	C8-N9-C4	-8.73	102.31	105.80
25	BA	2239	G	N9-C4-C5	-8.73	101.91	105.40
25	BA	1570	A	N1-C6-N6	8.72	123.83	118.60
25	BA	474	G	N9-C4-C5	8.72	108.89	105.40
25	BA	2052	G	C5-C6-O6	-8.72	123.37	128.60
1	AA	1475	G	C8-N9-C4	-8.72	102.91	106.40
25	BA	1275	A	N1-C6-N6	8.71	123.83	118.60
25	BA	179	G	N1-C2-N3	8.71	129.13	123.90
25	BA	17	G	N1-C6-O6	-8.71	114.67	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	956	G	N1-C6-O6	8.71	125.12	119.90
1	AA	494	U	C5-C4-O4	-8.70	120.68	125.90
25	BA	1519	G	N3-C4-C5	-8.69	124.25	128.60
25	BA	205	G	N3-C2-N2	8.69	125.98	119.90
25	BA	729	G	C5-N7-C8	-8.69	99.96	104.30
25	BA	2720	U	C5-C6-N1	-8.68	118.36	122.70
25	BA	1698	A	N7-C8-N9	8.68	118.14	113.80
25	BA	575	A	C6-N1-C2	-8.68	113.39	118.60
25	DA	1653	G	C4-N9-C1'	8.67	137.78	126.50
25	BA	1201	C	N1-C2-O2	-8.67	113.70	118.90
25	BA	1795	C	N3-C4-C5	8.67	125.37	121.90
25	BA	980	A	N9-C4-C5	8.66	109.27	105.80
25	BA	1204	A	N7-C8-N9	8.66	118.13	113.80
25	DA	1830	C	N3-C4-C5	8.65	125.36	121.90
25	BA	2783	G	C6-C5-N7	-8.65	125.21	130.40
1	AA	1519	A	C4-C5-C6	8.65	121.32	117.00
25	BA	1319	G	N3-C2-N2	-8.64	113.85	119.90
25	BA	533	G	C5-C6-O6	-8.64	123.42	128.60
25	BA	1245	G	N1-C6-O6	-8.64	114.72	119.90
25	BA	2286	A	C2-N3-C4	-8.63	106.28	110.60
23	AV	76	A	N3-C4-C5	8.63	132.84	126.80
25	BA	461	C	N3-C4-C5	-8.62	118.45	121.90
25	BA	2503	A	N1-C6-N6	8.62	123.77	118.60
25	DA	1332	G	C4-N9-C1'	-8.62	115.30	126.50
23	AV	75	C	N1-C2-O2	-8.62	113.73	118.90
25	BA	2463	C	N3-C4-C5	8.62	125.35	121.90
1	AA	890	G	N1-C6-O6	-8.61	114.73	119.90
25	BA	528	A	C6-N1-C2	8.61	123.77	118.60
25	BA	1202	C	N3-C2-O2	8.61	127.93	121.90
25	DA	2457	U	N3-C2-O2	-8.60	116.18	122.20
1	AA	1137	C	C6-N1-C2	-8.60	116.86	120.30
25	DA	2356	C	N1-C2-O2	-8.60	113.74	118.90
1	CA	1381	U	N1-C2-O2	8.59	128.81	122.80
25	BA	1579	A	N1-C6-N6	8.59	123.75	118.60
25	DA	2023	G	N3-C4-C5	-8.59	124.31	128.60
25	BA	2447	G	C5-C6-N1	8.59	115.79	111.50
25	BA	685	A	N7-C8-N9	8.59	118.09	113.80
25	BA	1972	A	C8-N9-C4	-8.59	102.37	105.80
1	CA	899	C	N3-C4-C5	8.59	125.33	121.90
25	BA	1602	U	C6-N1-C2	8.58	126.15	121.00
25	DA	1703	G	C5-C6-O6	-8.58	123.45	128.60
25	BA	729	G	C4-C5-N7	8.58	114.23	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	442	C	C6-N1-C2	-8.57	116.87	120.30
25	BA	2546	U	N1-C2-O2	-8.57	116.80	122.80
25	BA	2894	G	C6-C5-N7	-8.57	125.25	130.40
25	BA	1755	A	C8-N9-C4	-8.57	102.37	105.80
25	BA	1839	G	N9-C4-C5	-8.57	101.97	105.40
25	BA	2894	G	N1-C6-O6	8.57	125.04	119.90
25	BA	34	C	N3-C2-O2	-8.57	115.90	121.90
25	BA	461	C	N1-C2-O2	-8.57	113.76	118.90
25	BA	2602	A	N1-C6-N6	8.56	123.74	118.60
1	CA	1267	C	N1-C2-O2	8.56	124.04	118.90
25	BA	933	A	C8-N9-C4	-8.56	102.38	105.80
25	BA	245	G	C5-C6-O6	-8.56	123.47	128.60
25	BA	2760	C	C6-N1-C2	8.56	123.72	120.30
25	DA	994	C	N1-C2-O2	8.55	124.03	118.90
25	BA	2582	G	N1-C6-O6	-8.55	114.77	119.90
25	DA	991	C	C6-N1-C2	-8.55	116.88	120.30
25	BA	38	A	N1-C6-N6	-8.54	113.47	118.60
25	DA	760	G	C8-N9-C4	-8.54	102.98	106.40
23	AV	13	C	C5-C6-N1	8.54	125.27	121.00
25	BA	763	G	N1-C2-N2	-8.54	108.51	116.20
25	BA	827	U	C2-N3-C4	-8.54	121.88	127.00
1	AA	1495	U	N3-C4-C5	-8.53	109.48	114.60
1	AA	1524	C	C6-N1-C2	8.54	123.71	120.30
25	BA	2769	C	C2-N3-C4	-8.54	115.63	119.90
1	CA	1267	C	C2-N1-C1'	8.53	128.18	118.80
25	BA	430	G	N1-C6-O6	8.53	125.02	119.90
25	BA	2823	A	N1-C6-N6	8.53	123.72	118.60
25	DA	1353	A	C8-N9-C4	-8.53	102.39	105.80
25	BA	828	U	C5-C6-N1	-8.52	118.44	122.70
25	BA	568	U	N3-C2-O2	8.52	128.16	122.20
1	CA	839	U	N1-C2-O2	8.51	128.76	122.80
1	AA	1255	G	N1-C6-O6	8.51	125.01	119.90
25	BA	2725	A	C2-N3-C4	-8.51	106.34	110.60
25	BA	446	G	C4-C5-N7	8.51	114.20	110.80
25	BA	527	C	N1-C2-N3	8.51	125.15	119.20
25	DA	2387	U	C5-C6-N1	-8.50	118.45	122.70
25	BA	197	A	C2-N3-C4	-8.50	106.35	110.60
25	BA	456	C	C6-N1-C2	8.50	123.70	120.30
25	DA	2751	G	C8-N9-C1'	-8.50	115.95	127.00
25	BA	500	G	C4-C5-N7	-8.50	107.40	110.80
25	BA	2203	U	N1-C2-O2	-8.50	116.85	122.80
25	BA	1296	G	C2-N3-C4	8.49	116.15	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2227	A	N9-C4-C5	8.49	109.20	105.80
1	CA	1358	U	C5-C4-O4	8.48	130.99	125.90
25	DA	733	G	C6-C5-N7	-8.48	125.31	130.40
25	BA	1314	C	N3-C4-N4	-8.47	112.07	118.00
25	BA	1959	G	C5-C6-O6	8.47	133.68	128.60
25	BA	2363	C	C2-N3-C4	-8.47	115.66	119.90
25	BA	72	U	C2-N3-C4	-8.47	121.92	127.00
25	BA	1514	U	N3-C2-O2	-8.46	116.28	122.20
25	BA	2379	G	N9-C4-C5	-8.46	102.02	105.40
25	BA	569	U	N1-C2-N3	8.46	119.97	114.90
25	BA	945	A	C4-N9-C1'	8.46	141.52	126.30
1	CA	129(A)	G	C6-C5-N7	8.46	135.47	130.40
25	DA	528	A	N3-C4-C5	8.46	132.72	126.80
25	DA	92	A	N7-C8-N9	8.45	118.03	113.80
25	BA	1377	G	N1-C6-O6	-8.45	114.83	119.90
25	BA	445	C	C6-N1-C2	-8.45	116.92	120.30
25	BA	569	U	C5-C6-N1	-8.45	118.48	122.70
25	BA	2227	A	C8-N9-C4	-8.45	102.42	105.80
25	BA	17	G	C5-C6-N1	8.44	115.72	111.50
25	BA	1476	C	C6-N1-C2	-8.44	116.92	120.30
25	BA	2276	G	N7-C8-N9	8.44	117.32	113.10
25	BA	484	C	N3-C2-O2	8.44	127.81	121.90
25	BA	589	C	N3-C4-C5	8.44	125.28	121.90
25	BA	1992	G	C2-N3-C4	8.44	116.12	111.90
25	DA	706	A	C8-N9-C4	8.43	109.17	105.80
25	BA	652(S)	C	C2-N3-C4	8.43	124.11	119.90
1	CA	1054	C	C6-N1-C2	-8.42	116.93	120.30
25	DA	765	G	N1-C6-O6	8.42	124.95	119.90
25	BA	1660	C	N3-C2-O2	-8.42	116.01	121.90
25	DA	1142	U	C2-N1-C1'	8.42	127.80	117.70
25	DA	1698	A	N3-C4-C5	8.42	132.69	126.80
25	DA	1966	A	N1-C6-N6	-8.42	113.55	118.60
1	AA	540	G	N3-C4-C5	-8.41	124.39	128.60
25	BA	2037	G	N3-C2-N2	8.41	125.79	119.90
25	BA	2624	G	N1-C6-O6	8.41	124.95	119.90
25	DA	2396	G	N1-C6-O6	8.41	124.95	119.90
25	BA	968	G	C2-N3-C4	-8.41	107.70	111.90
25	DA	2253	G	N1-C6-O6	8.41	124.94	119.90
25	BA	768	G	C8-N9-C4	-8.41	103.04	106.40
25	DA	528	A	C5-N7-C8	-8.41	99.70	103.90
25	BA	790	C	C6-N1-C2	8.40	123.66	120.30
25	BA	2281	C	N3-C2-O2	8.40	127.78	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1332	G	C5-N7-C8	-8.40	100.10	104.30
25	BA	933	A	N1-C6-N6	8.40	123.64	118.60
25	BA	1816	G	N1-C2-N3	-8.40	118.86	123.90
25	DA	1769	G	N1-C6-O6	8.39	124.94	119.90
25	BA	759	G	C5-C6-O6	-8.38	123.57	128.60
1	CA	638	G	C8-N9-C4	8.38	109.75	106.40
25	BA	474	G	N1-C6-O6	-8.38	114.87	119.90
25	BA	1769	G	N3-C4-N9	8.38	131.03	126.00
25	BA	1963	U	C2-N1-C1'	8.38	127.75	117.70
25	DA	2259	G	N1-C6-O6	8.38	124.92	119.90
25	DA	265	A	N7-C8-N9	8.37	117.99	113.80
25	DA	337	C	N3-C4-N4	-8.37	112.14	118.00
25	BA	2030	A	C6-N1-C2	-8.37	113.58	118.60
1	AA	129(A)	G	C4-N9-C1'	8.37	137.38	126.50
25	BA	2511	U	N3-C4-C5	-8.37	109.58	114.60
25	BA	1257	C	N1-C2-O2	8.36	123.92	118.90
25	DA	250	G	C8-N9-C4	-8.37	103.05	106.40
1	CA	1484	C	C6-N1-C2	8.36	123.64	120.30
25	DA	590	A	C2-N3-C4	-8.36	106.42	110.60
25	BA	1141	U	N1-C2-N3	8.36	119.92	114.90
25	BA	1253	A	N7-C8-N9	-8.36	109.62	113.80
25	BA	1210	A	C8-N9-C4	-8.36	102.46	105.80
25	BA	40	C	N1-C2-O2	-8.36	113.89	118.90
25	BA	53	A	N1-C6-N6	8.36	123.61	118.60
26	BB	41	U	N1-C2-N3	8.36	119.91	114.90
25	DA	945	A	C5-C6-N6	-8.36	117.02	123.70
25	BA	190	A	C5-N7-C8	-8.35	99.72	103.90
25	BA	569	U	C2-N3-C4	-8.35	121.99	127.00
25	DA	566	U	C6-N1-C2	8.35	126.01	121.00
25	DA	1558	A	N1-C6-N6	8.35	123.61	118.60
25	DA	1653	G	N9-C4-C5	-8.35	102.06	105.40
25	BA	2807	G	N1-C6-O6	-8.35	114.89	119.90
25	DA	481	G	C8-N9-C4	-8.35	103.06	106.40
25	BA	676	A	C8-N9-C4	-8.34	102.46	105.80
25	BA	2318	G	C6-C5-N7	-8.34	125.40	130.40
25	DA	1914	C	N1-C2-O2	8.34	123.90	118.90
25	BA	2058	A	C2-N3-C4	-8.34	106.43	110.60
25	BA	2436	G	C6-N1-C2	-8.34	120.10	125.10
25	DA	2563	U	C5-C6-N1	-8.34	118.53	122.70
25	DA	1767	C	C5-C6-N1	-8.33	116.83	121.00
25	BA	931	G	N1-C6-O6	-8.33	114.90	119.90
26	BB	18	G	C5-C6-O6	-8.33	123.60	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1787	A	N1-C2-N3	8.32	133.46	129.30
1	AA	421	U	C2-N1-C1'	8.32	127.69	117.70
25	BA	259	G	C8-N9-C4	8.32	109.73	106.40
26	BB	89	G	C6-C5-N7	-8.32	125.41	130.40
25	BA	2512	C	C6-N1-C2	8.32	123.63	120.30
25	BA	2459	A	N7-C8-N9	8.32	117.96	113.80
25	BA	2585	U	N1-C2-O2	8.32	128.62	122.80
1	AA	189(D)	C	C4-C5-C6	8.32	121.56	117.40
25	BA	2820	A	N9-C4-C5	-8.31	102.47	105.80
25	BA	236	C	C6-N1-C2	8.31	123.62	120.30
25	BA	1106	G	N7-C8-N9	8.31	117.25	113.10
1	CA	317	G	C8-N9-C4	-8.31	103.08	106.40
25	BA	500	G	C5-C6-O6	8.31	133.59	128.60
25	BA	681	G	C2-N3-C4	-8.31	107.75	111.90
26	BB	41	U	C5-C6-N1	-8.31	118.55	122.70
25	DA	71	A	C5-N7-C8	-8.31	99.75	103.90
25	BA	2489	G	N1-C2-N2	-8.30	108.73	116.20
25	BA	1133	U	C2-N3-C4	-8.30	122.02	127.00
25	DA	1313	U	C6-N1-C2	-8.30	116.02	121.00
25	BA	2015	A	C2-N3-C4	-8.30	106.45	110.60
25	BA	390	A	N1-C6-N6	8.29	123.58	118.60
25	BA	1598	C	N1-C2-O2	-8.29	113.92	118.90
1	AA	1459	C	C6-N1-C2	8.29	123.62	120.30
25	BA	2690	C	N3-C4-C5	-8.29	118.58	121.90
25	BA	1558	A	C6-C5-N7	-8.29	126.50	132.30
25	BA	2074	U	C6-N1-C2	-8.29	116.03	121.00
25	BA	814	C	C5-C6-N1	-8.28	116.86	121.00
25	BA	694	U	C5-C4-O4	8.28	130.87	125.90
25	BA	313	C	N3-C4-C5	8.27	125.21	121.90
1	CA	839	U	N3-C2-O2	-8.27	116.41	122.20
25	BA	1989	G	C4-C5-N7	8.27	114.11	110.80
1	CA	841	U	C5-C6-N1	8.27	126.84	122.70
25	BA	645	C	C2-N1-C1'	8.27	127.89	118.80
25	BA	2030	A	N1-C2-N3	8.27	133.43	129.30
25	BA	2625	G	N9-C4-C5	8.27	108.71	105.40
25	DA	2286	A	C5-N7-C8	-8.27	99.77	103.90
25	DA	1558	A	N1-C2-N3	8.27	133.43	129.30
1	AA	928	G	N1-C6-O6	8.26	124.86	119.90
25	BA	298	G	N1-C6-O6	8.26	124.86	119.90
25	BA	2021	C	C6-N1-C2	8.26	123.60	120.30
25	DA	583	G	N1-C6-O6	8.26	124.86	119.90
25	BA	1154	G	C8-N9-C4	-8.26	103.10	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1558	A	C6-C5-N7	-8.26	126.52	132.30
25	BA	1033	U	C5-C6-N1	-8.26	118.57	122.70
25	BA	570	G	C5-C6-O6	8.25	133.55	128.60
25	BA	1790	C	N3-C4-C5	8.25	125.20	121.90
25	DA	2286	A	C4-C5-C6	8.25	121.12	117.00
23	AV	76	A	C8-N9-C4	8.24	109.10	105.80
25	BA	2105	C	C2-N3-C4	8.24	124.02	119.90
25	DA	385	C	N3-C2-O2	-8.23	116.14	121.90
25	BA	272(D)	G	C8-N9-C4	8.23	109.69	106.40
25	DA	645	C	C2-N1-C1'	8.23	127.86	118.80
25	BA	210	C	C5-C6-N1	-8.23	116.89	121.00
25	BA	2429	G	C8-N9-C4	-8.22	103.11	106.40
1	CA	1381	U	N3-C2-O2	-8.22	116.44	122.20
25	BA	730	C	N3-C4-C5	8.22	125.19	121.90
25	BA	2768	C	C2-N3-C4	-8.22	115.79	119.90
25	BA	2522	U	C5-C4-O4	-8.22	120.97	125.90
25	DA	1776	G	N1-C6-O6	8.22	124.83	119.90
1	CA	960	U	C2-N1-C1'	8.22	127.56	117.70
25	DA	1257	C	C6-N1-C2	-8.22	117.01	120.30
25	BA	134	C	C6-N1-C2	-8.21	117.02	120.30
1	CA	1158	C	N1-C2-O2	8.21	123.82	118.90
25	BA	1336	A	C5-C6-N1	8.20	121.80	117.70
25	BA	1967	C	C5-C6-N1	-8.20	116.90	121.00
25	BA	522	G	C6-C5-N7	-8.20	125.48	130.40
25	BA	2063	C	N3-C2-O2	8.20	127.64	121.90
25	DA	330	A	C4-C5-N7	8.20	114.80	110.70
25	BA	1377	G	C4-C5-N7	-8.20	107.52	110.80
25	BA	2791	C	C2-N1-C1'	8.19	127.81	118.80
25	DA	467	G	C8-N9-C4	8.18	109.67	106.40
25	BA	2499	C	N3-C4-C5	-8.18	118.63	121.90
25	DA	2286	A	C5-C6-N1	-8.18	113.61	117.70
25	BA	106	C	N1-C2-O2	-8.18	113.99	118.90
25	BA	933	A	C6-C5-N7	-8.18	126.58	132.30
25	BA	2877	G	C2-N3-C4	-8.17	107.81	111.90
25	BA	1823	G	C4-C5-N7	8.17	114.07	110.80
1	AA	1414	U	N1-C2-O2	8.17	128.52	122.80
25	BA	575	A	N1-C2-N3	8.17	133.38	129.30
26	BB	104	U	C5-C4-O4	-8.16	121.00	125.90
25	BA	912	C	C6-N1-C2	-8.16	117.04	120.30
25	DA	2206	G	C8-N9-C4	8.16	109.66	106.40
25	BA	671	C	C4-C5-C6	8.16	121.48	117.40
25	BA	1210	A	C5-C6-N1	-8.15	113.62	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1839	G	C4-C5-N7	8.15	114.06	110.80
25	BA	2037	G	N1-C6-O6	-8.15	115.01	119.90
25	BA	732	C	N1-C2-O2	-8.15	114.01	118.90
25	BA	1992	G	C5-C6-N1	8.15	115.57	111.50
25	BA	198	C	N3-C4-C5	8.14	125.16	121.90
25	BA	1108	U	N3-C2-O2	-8.14	116.50	122.20
25	BA	1997	G	N1-C2-N3	8.14	128.79	123.90
25	DA	1252	G	N1-C6-O6	8.14	124.79	119.90
25	DA	1813	G	N1-C6-O6	8.14	124.79	119.90
1	AA	900	A	C5-N7-C8	-8.14	99.83	103.90
25	BA	2441	C	N3-C4-N4	-8.14	112.30	118.00
25	BA	1208	C	C5-C6-N1	-8.14	116.93	121.00
25	DA	932	G	C6-C5-N7	8.14	135.28	130.40
25	DA	1998	G	N7-C8-N9	-8.14	109.03	113.10
25	BA	567	A	C6-C5-N7	-8.13	126.61	132.30
25	BA	1141	U	N3-C2-O2	-8.13	116.51	122.20
1	CA	40	C	N1-C2-O2	8.13	123.78	118.90
25	BA	400	G	N3-C2-N2	-8.13	114.21	119.90
25	BA	1447	G	C8-N9-C4	-8.13	103.15	106.40
25	BA	1586	A	N7-C8-N9	8.13	117.86	113.80
25	DA	216	A	C2-N3-C4	-8.13	106.54	110.60
25	BA	1708	C	C6-N1-C2	8.12	123.55	120.30
25	BA	2014	A	N1-C6-N6	8.12	123.47	118.60
25	DA	329	G	N3-C4-C5	-8.12	124.54	128.60
1	AA	1506	U	C5-C4-O4	-8.12	121.03	125.90
25	BA	622	G	C8-N9-C4	8.12	109.65	106.40
25	BA	1377	G	C5-C6-O6	8.12	133.47	128.60
25	BA	2041	U	C5-C6-N1	-8.12	118.64	122.70
1	AA	738	C	C6-N1-C2	-8.12	117.05	120.30
25	BA	141	A	C5-C6-N6	-8.11	117.21	123.70
25	DA	1314	C	C2-N1-C1'	8.11	127.72	118.80
25	BA	1332	G	N9-C4-C5	-8.11	102.16	105.40
1	AA	1518	A	C5-C6-N1	-8.10	113.65	117.70
25	DA	2538	C	C6-N1-C2	8.10	123.54	120.30
25	BA	126	A	N1-C6-N6	-8.10	113.74	118.60
25	DA	127	A	N1-C6-N6	8.10	123.46	118.60
25	BA	2022	U	C2-N3-C4	-8.10	122.14	127.00
25	BA	148	C	C6-N1-C2	8.09	123.54	120.30
25	BA	1251	C	N3-C4-N4	8.09	123.66	118.00
25	BA	1972	A	C5-C6-N1	8.09	121.75	117.70
25	DA	1210	A	C6-C5-N7	-8.09	126.64	132.30
25	BA	372	G	N1-C6-O6	-8.09	115.05	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	514	A	N1-C6-N6	-8.09	113.75	118.60
25	BA	1405	U	C5-C6-N1	-8.08	118.66	122.70
25	DA	1307	A	N1-C6-N6	-8.08	113.75	118.60
25	BA	1145	C	N1-C2-O2	-8.08	114.05	118.90
25	BA	1204	A	N1-C6-N6	8.08	123.45	118.60
25	BA	2319	G	C5-N7-C8	-8.08	100.26	104.30
25	DA	236	C	N3-C4-C5	8.08	125.13	121.90
25	DA	1204	A	C4-C5-N7	8.08	114.74	110.70
25	BA	679	C	C2-N3-C4	-8.07	115.86	119.90
1	AA	586	C	C6-N1-C2	8.07	123.53	120.30
1	CA	1499	A	C8-N9-C4	8.07	109.03	105.80
25	BA	271(X)	G	C5-C6-N1	-8.07	107.47	111.50
25	BA	1573	G	C2-N3-C4	-8.07	107.87	111.90
25	BA	2318	G	C8-N9-C4	-8.07	103.17	106.40
25	BA	2743	C	C5-C6-N1	-8.07	116.97	121.00
25	BA	2380	C	N3-C4-C5	8.06	125.12	121.90
25	DA	530	G	N1-C6-O6	-8.06	115.06	119.90
25	DA	1670	C	C4-C5-C6	8.06	121.43	117.40
25	DA	2765	A	C8-N9-C4	-8.06	102.58	105.80
25	DA	1210	A	N7-C8-N9	8.06	117.83	113.80
25	DA	2103	C	C5-C4-N4	8.06	125.84	120.20
1	AA	166	G	N3-C4-C5	-8.06	124.57	128.60
1	AA	1467	G	N9-C4-C5	8.06	108.62	105.40
25	BA	972	G	C5-C6-O6	8.06	133.43	128.60
25	BA	1624	G	C5-C6-O6	-8.06	123.77	128.60
25	BA	2826	A	C2-N3-C4	-8.06	106.57	110.60
25	BA	1450(A)	C	C6-N1-C2	8.05	123.52	120.30
25	BA	2363	C	N3-C4-C5	8.05	125.12	121.90
25	DA	737	C	C6-N1-C2	8.05	123.52	120.30
25	BA	530	G	C5-C6-O6	8.05	133.43	128.60
25	BA	2324	C	C6-N1-C2	8.05	123.52	120.30
25	DA	671	C	N3-C4-C5	-8.04	118.68	121.90
23	AV	9	G	N9-C4-C5	8.04	108.62	105.40
25	BA	130	C	C2-N3-C4	-8.04	115.88	119.90
25	BA	2370	G	C8-N9-C4	8.04	109.62	106.40
25	BA	772	C	C6-N1-C2	8.04	123.52	120.30
1	CA	1366	C	C2-N3-C4	8.04	123.92	119.90
1	AA	1113	C	C6-N1-C2	-8.04	117.09	120.30
25	BA	1184	G	N3-C2-N2	-8.03	114.28	119.90
25	BA	2308	G	C5-C6-O6	-8.04	123.78	128.60
25	BA	2587	A	C6-N1-C2	-8.03	113.78	118.60
26	BB	38	C	N3-C4-N4	-8.03	112.38	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1658	C	N1-C2-O2	-8.03	114.08	118.90
25	BA	1669	A	C4-C5-C6	8.03	121.01	117.00
25	BA	2370	G	N9-C4-C5	-8.03	102.19	105.40
25	BA	1245	G	N9-C4-C5	8.02	108.61	105.40
25	BA	1904	G	C8-N9-C4	8.02	109.61	106.40
25	BA	2615	U	N3-C4-C5	8.02	119.41	114.60
25	BA	1632	A	N1-C6-N6	8.02	123.41	118.60
1	AA	1474	G	C8-N9-C4	8.01	109.61	106.40
25	DA	2287	A	C2-N3-C4	-8.01	106.59	110.60
1	AA	1091	U	N3-C2-O2	-8.01	116.59	122.20
25	BA	514	A	C5-C6-N1	8.01	121.70	117.70
1	CA	129(A)	G	C4-C5-N7	-8.01	107.60	110.80
1	AA	1375	A	C8-N9-C4	-8.01	102.60	105.80
25	DA	2751	G	N3-C4-C5	-8.01	124.60	128.60
25	BA	2371	G	C5-C6-N1	8.00	115.50	111.50
25	BA	2377	A	C8-N9-C4	8.00	109.00	105.80
25	DA	1553	A	C8-N9-C4	-8.00	102.60	105.80
25	BA	2383	G	C8-N9-C4	7.99	109.60	106.40
25	DA	265	A	N1-C6-N6	7.99	123.39	118.60
25	BA	1570	A	C8-N9-C4	7.99	109.00	105.80
25	BA	1827	C	N3-C2-O2	-7.99	116.31	121.90
25	DA	1254	A	C8-N9-C4	-7.99	102.61	105.80
25	BA	1781	C	N3-C2-O2	7.99	127.49	121.90
1	CA	1119	C	C6-N1-C2	-7.98	117.11	120.30
25	DA	1767	C	C2-N3-C4	-7.98	115.91	119.90
1	AA	540	G	C8-N9-C4	-7.98	103.21	106.40
25	BA	1607	C	C5-C4-N4	-7.98	114.61	120.20
25	BA	770	G	C5-C6-N1	7.98	115.49	111.50
1	AA	768	A	C6-N1-C2	-7.98	113.81	118.60
25	BA	1997	G	C6-N1-C2	-7.98	120.31	125.10
1	AA	266	G	C5-N7-C8	-7.97	100.31	104.30
25	BA	2625	G	C6-C5-N7	7.97	135.18	130.40
25	DA	2897	U	C2-N1-C1'	7.97	127.27	117.70
25	BA	766	C	C6-N1-C2	-7.97	117.11	120.30
25	BA	2017	U	C4-C5-C6	7.97	124.48	119.70
25	BA	2508	G	C5-C6-O6	-7.97	123.82	128.60
25	BA	2004	G	C2-N3-C4	-7.96	107.92	111.90
25	BA	2287	A	N1-C2-N3	7.96	133.28	129.30
25	BA	20	C	C2-N3-C4	-7.96	115.92	119.90
25	BA	208	C	C6-N1-C2	7.96	123.48	120.30
25	BA	1026	U	N1-C2-O2	7.96	128.37	122.80
25	BA	390	A	N9-C4-C5	-7.95	102.62	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	445	C	C5-C6-N1	7.95	124.98	121.00
25	BA	192	C	C2-N3-C4	-7.95	115.92	119.90
25	BA	530	G	N7-C8-N9	7.95	117.08	113.10
25	BA	1216	G	N1-C6-O6	7.95	124.67	119.90
25	BA	2377	A	C2-N3-C4	-7.95	106.62	110.60
25	BA	1695	G	N3-C2-N2	7.95	125.46	119.90
25	BA	2625	G	C5-C6-O6	7.95	133.37	128.60
25	BA	34	C	C2-N1-C1'	7.95	127.54	118.80
25	BA	926	A	C5-C6-N6	-7.95	117.34	123.70
25	DA	1791	A	C8-N9-C4	-7.95	102.62	105.80
1	AA	576	G	C4-N9-C1'	7.94	136.82	126.50
1	AA	1467	G	C5-C6-O6	7.94	133.36	128.60
25	DA	2498	C	C6-N1-C2	7.94	123.48	120.30
25	BA	15	G	C5-C6-N1	-7.94	107.53	111.50
26	DB	43	C	C6-N1-C2	-7.94	117.12	120.30
25	BA	1620	G	C8-N9-C4	7.94	109.58	106.40
25	DA	972	G	C5-C6-O6	7.94	133.36	128.60
25	BA	961	C	N3-C2-O2	-7.94	116.34	121.90
25	BA	2088	G	C5-C6-N1	-7.94	107.53	111.50
25	BA	1839	G	N3-C4-N9	7.93	130.76	126.00
1	CA	1197	G	N3-C4-N9	7.93	130.76	126.00
1	AA	997	U	C5-C4-O4	7.93	130.66	125.90
25	DA	788	A	N1-C6-N6	7.93	123.36	118.60
25	DA	888	C	C6-N1-C2	-7.93	117.13	120.30
25	BA	1121	C	C2-N3-C4	-7.93	115.94	119.90
1	CA	1133	G	N3-C4-N9	-7.93	121.24	126.00
25	BA	446	G	C8-N9-C4	7.93	109.57	106.40
25	BA	1812	A	N1-C6-N6	-7.93	113.84	118.60
25	BA	2381	C	C5-C6-N1	-7.93	117.04	121.00
1	AA	1417	G	N3-C4-N9	7.92	130.75	126.00
25	DA	1302	A	N1-C6-N6	-7.92	113.85	118.60
25	DA	528	A	C5-C6-N1	-7.92	113.74	117.70
1	AA	882	C	C6-N1-C2	-7.92	117.13	120.30
25	DA	2286	A	N7-C8-N9	7.92	117.76	113.80
25	DA	975	C	N1-C2-O2	7.92	123.65	118.90
25	BA	2274	A	C5-N7-C8	-7.92	99.94	103.90
25	BA	665	C	C6-N1-C2	7.91	123.46	120.30
25	BA	975	C	C6-N1-C2	7.91	123.46	120.30
25	BA	1336	A	C6-N1-C2	-7.91	113.85	118.60
25	DA	2035	G	C4-C5-N7	-7.91	107.64	110.80
25	BA	1839	G	N3-C2-N2	7.91	125.44	119.90
25	BA	308	G	N3-C2-N2	7.90	125.43	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1034	G	N1-C6-O6	7.90	124.64	119.90
26	BB	89	G	C4-N9-C1'	7.90	136.77	126.50
25	BA	414	C	N3-C4-C5	7.90	125.06	121.90
25	BA	729	G	N7-C8-N9	7.90	117.05	113.10
25	BA	2557	G	N1-C6-O6	7.89	124.64	119.90
1	CA	398	C	N3-C4-N4	-7.89	112.47	118.00
25	BA	1760	A	N1-C6-N6	7.89	123.34	118.60
25	BA	1774	C	N1-C2-O2	7.89	123.63	118.90
25	BA	649	G	N1-C6-O6	7.89	124.63	119.90
25	BA	734	A	N9-C4-C5	-7.89	102.64	105.80
25	BA	1497	U	C5-C4-O4	7.89	130.63	125.90
25	BA	2505	G	C2-N3-C4	-7.89	107.96	111.90
26	BB	75	G	C6-C5-N7	-7.88	125.67	130.40
25	BA	460	A	N1-C2-N3	7.88	133.24	129.30
25	BA	271(M)	G	N3-C4-C5	-7.87	124.66	128.60
25	DA	733	G	N1-C6-O6	7.87	124.62	119.90
25	DA	1914	C	C6-N1-C2	-7.87	117.15	120.30
25	BA	568	U	C6-N1-C2	7.87	125.72	121.00
25	DA	2326	C	C6-N1-C2	-7.87	117.15	120.30
25	BA	210	C	C6-N1-C2	7.86	123.45	120.30
25	BA	848	G	N7-C8-N9	-7.86	109.17	113.10
1	AA	1512	U	C5-C6-N1	-7.86	118.77	122.70
25	BA	1047	G	N3-C4-C5	-7.86	124.67	128.60
25	BA	1279	G	N3-C4-C5	-7.86	124.67	128.60
25	BA	122	G	C8-N9-C4	7.85	109.54	106.40
25	BA	2431	U	C5-C6-N1	-7.85	118.77	122.70
25	BA	1128	A	N7-C8-N9	-7.85	109.88	113.80
25	BA	1337	G	C6-N1-C2	-7.84	120.39	125.10
25	DA	2412	A	N1-C6-N6	-7.84	113.89	118.60
25	BA	481	G	N3-C4-C5	-7.84	124.68	128.60
25	DA	2396	G	C4-C5-N7	7.84	113.94	110.80
25	DA	811	U	N3-C4-O4	-7.84	113.91	119.40
25	DA	2452	C	N3-C4-N4	7.84	123.49	118.00
25	BA	139(A)	G	C5-C6-N1	7.83	115.42	111.50
25	DA	676	A	N7-C8-N9	7.83	117.72	113.80
25	BA	1443	G	N1-C6-O6	7.83	124.60	119.90
25	BA	1839	G	C8-N9-C1'	-7.83	116.82	127.00
25	DA	504	U	C5-C6-N1	7.83	126.61	122.70
25	BA	44	G	N1-C6-O6	-7.83	115.20	119.90
25	BA	2768	C	C6-N1-C2	7.83	123.43	120.30
26	BB	81	G	N3-C2-N2	-7.83	114.42	119.90
1	CA	1149	C	C5-C6-N1	7.83	124.91	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	92	A	C8-N9-C4	-7.83	102.67	105.80
25	DA	676	A	C4-C5-N7	7.83	114.61	110.70
25	BA	2044	C	C2-N3-C4	-7.82	115.99	119.90
25	DA	2876	G	C5-C6-O6	-7.82	123.91	128.60
1	CA	960	U	N1-C2-O2	7.82	128.27	122.80
25	DA	2253	G	C8-N9-C4	7.82	109.53	106.40
1	AA	365	U	C5-C6-N1	-7.82	118.79	122.70
25	BA	952	G	N1-C6-O6	7.82	124.59	119.90
25	DA	71	A	C6-C5-N7	-7.81	126.83	132.30
25	DA	736	C	N1-C2-O2	-7.81	114.21	118.90
25	DA	2056	G	C6-C5-N7	-7.81	125.71	130.40
25	BA	1665	A	N1-C6-N6	-7.81	113.92	118.60
25	BA	681	G	C6-N1-C2	-7.81	120.42	125.10
25	BA	2318	G	N7-C8-N9	7.81	117.00	113.10
25	BA	734	A	C5-N7-C8	-7.80	100.00	103.90
25	DA	1998	G	C8-N9-C4	7.80	109.52	106.40
25	BA	460	A	C2-N3-C4	-7.80	106.70	110.60
25	BA	567	A	C5-C6-N6	-7.80	117.46	123.70
25	DA	450	G	N3-C2-N2	-7.80	114.44	119.90
25	DA	798	G	N3-C2-N2	-7.80	114.44	119.90
25	DA	2439	A	C8-N9-C4	-7.80	102.68	105.80
1	AA	990	C	C6-N1-C2	-7.80	117.18	120.30
25	DA	533	G	C2-N3-C4	-7.80	108.00	111.90
25	DA	2218	U	N1-C2-O2	7.79	128.25	122.80
25	BA	2064	C	C5-C6-N1	-7.79	117.10	121.00
25	DA	102	G	C8-N9-C4	-7.79	103.28	106.40
1	AA	615	C	C6-N1-C2	-7.79	117.19	120.30
25	BA	944	G	N7-C8-N9	7.79	116.99	113.10
25	BA	1813	G	C8-N9-C4	7.79	109.52	106.40
26	DB	54	G	N7-C8-N9	7.79	116.99	113.10
1	AA	344	A	N7-C8-N9	7.79	117.69	113.80
25	DA	1653	G	N1-C2-N2	-7.79	109.19	116.20
25	BA	2614	A	C8-N9-C4	7.78	108.91	105.80
25	BA	117	G	N9-C4-C5	-7.78	102.29	105.40
1	AA	1486	G	C5-C6-O6	-7.78	123.93	128.60
25	BA	1319	G	N1-C2-N3	7.78	128.57	123.90
25	BA	2093	G	C2-N3-C4	-7.78	108.01	111.90
25	BA	15	G	N1-C6-O6	7.78	124.56	119.90
25	BA	531	C	N1-C2-O2	-7.78	114.23	118.90
25	BA	2429	G	N9-C4-C5	7.78	108.51	105.40
1	AA	22	G	C4-C5-N7	7.77	113.91	110.80
1	AA	1255	G	C5-C6-O6	-7.77	123.94	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	71	A	C5-C6-N1	-7.77	113.81	117.70
25	DA	1934	C	C6-N1-C2	7.77	123.41	120.30
25	BA	12	U	N3-C2-O2	-7.77	116.76	122.20
25	BA	1796	U	C5-C4-O4	-7.77	121.24	125.90
25	BA	1012	U	N3-C4-C5	-7.77	109.94	114.60
35	BP	45	LEU	CA-CB-CG	-7.77	97.44	115.30
25	BA	1142(A)	A	N7-C8-N9	7.76	117.68	113.80
25	DA	686	G	C2-N3-C4	-7.76	108.02	111.90
25	DA	1776	G	C5-C6-O6	-7.76	123.94	128.60
1	CA	599	C	C6-N1-C2	7.76	123.41	120.30
1	CA	1321	C	C6-N1-C2	-7.76	117.19	120.30
25	BA	1602	U	N3-C4-O4	-7.76	113.97	119.40
25	BA	2203	U	N3-C2-O2	7.76	127.63	122.20
25	DA	932	G	C5-C6-O6	7.75	133.25	128.60
25	BA	528	A	C6-C5-N7	-7.75	126.87	132.30
25	BA	761	A	C6-C5-N7	-7.75	126.87	132.30
25	BA	1708	C	N3-C4-C5	7.75	125.00	121.90
25	BA	27	G	C8-N9-C4	-7.75	103.30	106.40
25	BA	399	G	C2-N3-C4	-7.75	108.03	111.90
25	DA	2877	G	N1-C6-O6	7.75	124.55	119.90
25	DA	1992	G	C8-N9-C4	-7.75	103.30	106.40
25	BA	1216	G	C6-C5-N7	-7.74	125.75	130.40
25	BA	2093	G	N1-C2-N3	7.74	128.54	123.90
28	BE	119	ARG	NE-CZ-NH1	7.74	124.17	120.30
25	BA	1823	G	N3-C2-N2	7.74	125.32	119.90
25	BA	2585	U	C6-N1-C1'	-7.74	110.36	121.20
25	BA	2454	G	C5-C6-O6	7.74	133.24	128.60
25	DA	540	C	C6-N1-C2	-7.74	117.21	120.30
25	DA	2599	G	N9-C4-C5	7.74	108.49	105.40
25	DA	2848	G	C4-C5-N7	-7.74	107.71	110.80
25	BA	2578	G	N7-C8-N9	-7.73	109.23	113.10
25	BA	706	A	N9-C4-C5	-7.73	102.71	105.80
25	BA	745	G	C4-C5-N7	7.73	113.89	110.80
25	BA	534	U	C4-C5-C6	7.73	124.34	119.70
25	BA	2289	G	N1-C2-N3	-7.73	119.26	123.90
25	BA	2082	A	N1-C6-N6	7.73	123.24	118.60
1	CA	372	C	C6-N1-C2	7.72	123.39	120.30
25	BA	659	C	C2-N1-C1'	-7.72	110.31	118.80
25	BA	715	G	C6-C5-N7	-7.72	125.77	130.40
25	BA	805	G	C8-N9-C4	-7.72	103.31	106.40
25	BA	814	C	N3-C4-C5	7.72	124.99	121.90
25	BA	2430	A	C2-N3-C4	-7.72	106.74	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	347	G	N3-C4-N9	7.72	130.63	126.00
25	BA	1033	U	C6-N1-C2	7.71	125.63	121.00
25	BA	2244	U	N3-C4-O4	-7.71	114.00	119.40
25	BA	2772	C	C6-N1-C2	7.71	123.39	120.30
25	DA	811	U	C5-C4-O4	7.71	130.53	125.90
1	CA	1077	G	C8-N9-C4	7.71	109.48	106.40
25	DA	2224	G	C5-C6-N1	-7.71	107.64	111.50
25	BA	715	G	N3-C4-N9	7.71	130.63	126.00
25	BA	1819	A	N9-C4-C5	7.71	108.89	105.80
25	DA	102	G	N9-C4-C5	7.71	108.48	105.40
25	BA	514	A	C6-N1-C2	-7.71	113.97	118.60
26	BB	102	A	C2-N3-C4	-7.71	106.75	110.60
25	DA	1579	A	N1-C6-N6	7.71	123.22	118.60
1	AA	839	U	N3-C2-O2	-7.71	116.81	122.20
25	DA	811	U	C5-C6-N1	-7.71	118.85	122.70
25	DA	1313	U	C2-N1-C1'	7.70	126.94	117.70
25	BA	652(H)	C	C6-N1-C2	-7.70	117.22	120.30
25	BA	2378	A	C8-N9-C4	7.70	108.88	105.80
25	BA	561	G	C2-N3-C4	7.69	115.75	111.90
25	BA	1939	U	N1-C2-N3	-7.69	110.29	114.90
1	AA	898	G	N9-C4-C5	-7.69	102.32	105.40
25	BA	531	C	C4-C5-C6	7.69	121.24	117.40
25	DA	924	C	C6-N1-C2	7.69	123.38	120.30
25	BA	139(A)	G	C4-C5-N7	7.69	113.87	110.80
25	BA	2354	G	C5-C6-N1	7.69	115.34	111.50
25	DA	2235	G	N1-C6-O6	7.69	124.51	119.90
25	DA	2473	U	C2-N1-C1'	7.69	126.92	117.70
25	BA	1315	C	N3-C2-O2	-7.68	116.52	121.90
25	BA	2689	U	C2-N1-C1'	-7.68	108.48	117.70
25	BA	975	C	N1-C2-O2	7.68	123.51	118.90
25	BA	860	U	N3-C4-O4	-7.68	114.03	119.40
1	CA	513	C	N1-C2-O2	7.68	123.51	118.90
1	AA	529	G	C5-C6-O6	-7.68	123.99	128.60
25	BA	545	G	C4-C5-N7	7.68	113.87	110.80
25	DA	933	A	C5-N7-C8	-7.68	100.06	103.90
25	DA	949	C	N1-C2-O2	-7.68	114.29	118.90
25	BA	1198	U	N1-C2-N3	7.67	119.50	114.90
25	BA	1180	C	C6-N1-C2	7.67	123.37	120.30
25	BA	2030	A	N1-C6-N6	7.66	123.20	118.60
25	DA	265	A	C5-N7-C8	-7.66	100.07	103.90
25	BA	1315	C	C2-N3-C4	-7.66	116.07	119.90
25	DA	1294	U	N1-C2-O2	-7.66	117.44	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	509	A	C8-N9-C4	-7.66	102.74	105.80
25	BA	71	A	N1-C2-N3	7.66	133.13	129.30
25	BA	1350	C	C5-C6-N1	-7.66	117.17	121.00
25	DA	1377	G	N3-C4-N9	7.66	130.60	126.00
25	BA	1390	U	C5-C4-O4	-7.66	121.31	125.90
1	AA	576	G	N3-C4-C5	-7.66	124.77	128.60
25	BA	173	G	N1-C6-O6	7.66	124.49	119.90
25	DA	298	G	N3-C4-C5	7.66	132.43	128.60
25	BA	2450	A	C8-N9-C4	-7.65	102.74	105.80
25	BA	1106	G	C4-N9-C1'	7.65	136.44	126.50
25	BA	535	C	N1-C2-O2	-7.64	114.31	118.90
25	BA	1324	G	N1-C6-O6	7.64	124.49	119.90
25	BA	790	C	N3-C2-O2	7.64	127.25	121.90
25	BA	1257	C	C4-C5-C6	7.64	121.22	117.40
25	BA	494	G	N3-C2-N2	-7.64	114.55	119.90
25	BA	535	C	C4-C5-C6	7.64	121.22	117.40
1	AA	803	G	C5-C6-O6	7.63	133.18	128.60
25	BA	1792	G	C5-C6-N1	7.63	115.32	111.50
25	BA	2866	U	C5-C4-O4	7.63	130.48	125.90
1	AA	625	G	C8-N9-C4	-7.63	103.35	106.40
25	BA	1506	C	C2-N1-C1'	7.63	127.19	118.80
25	DA	204	A	N9-C4-C5	7.63	108.85	105.80
25	DA	735	A	C8-N9-C4	7.63	108.85	105.80
25	DA	1962	C	N3-C2-O2	7.63	127.24	121.90
25	BA	568	U	N1-C2-O2	-7.63	117.46	122.80
25	BA	1831	G	N1-C6-O6	7.63	124.48	119.90
1	CA	1441	G	C8-N9-C4	-7.63	103.35	106.40
25	DA	1313	U	C5-C6-N1	7.63	126.51	122.70
25	BA	837	C	C5-C6-N1	7.62	124.81	121.00
25	BA	2507	C	C6-N1-C2	-7.62	117.25	120.30
26	BB	72	G	C8-N9-C4	7.62	109.45	106.40
25	DA	1677	A	C8-N9-C4	7.62	108.85	105.80
25	DA	1698	A	N1-C6-N6	7.62	123.17	118.60
25	BA	2045	C	C6-N1-C2	7.61	123.34	120.30
25	BA	796	C	C2-N3-C4	-7.61	116.09	119.90
25	DA	676	A	N1-C6-N6	7.61	123.17	118.60
1	AA	1366	C	N3-C4-C5	-7.61	118.86	121.90
25	BA	29	U	N3-C4-C5	7.61	119.16	114.60
25	BA	932	G	C4-C5-N7	-7.61	107.76	110.80
25	DA	1327	C	N1-C2-O2	-7.61	114.33	118.90
25	BA	2475	C	N1-C2-O2	-7.61	114.34	118.90
25	BA	522	G	C4-C5-N7	7.60	113.84	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2598	A	C4-C5-N7	7.60	114.50	110.70
25	BA	692	C	C2-N3-C4	-7.60	116.10	119.90
25	BA	2689	U	N1-C2-O2	-7.60	117.48	122.80
25	DA	22	C	C5-C6-N1	-7.60	117.20	121.00
1	AA	1107	C	C6-N1-C2	-7.60	117.26	120.30
25	BA	1216	G	C5-C6-O6	-7.60	124.04	128.60
25	BA	1774	C	N3-C2-O2	-7.60	116.58	121.90
25	DA	1204	A	C5-N7-C8	-7.60	100.10	103.90
25	BA	2581	G	C5-C6-O6	7.59	133.16	128.60
25	BA	1342	A	C6-N1-C2	-7.59	114.05	118.60
25	BA	1488	G	C8-N9-C4	-7.59	103.36	106.40
25	BA	2017	U	N1-C2-N3	7.59	119.45	114.90
25	BA	991	C	N3-C4-C5	7.59	124.93	121.90
25	BA	1968	G	C8-N9-C4	-7.59	103.36	106.40
25	BA	1755	A	N9-C4-C5	7.58	108.83	105.80
25	BA	804	A	C2-N3-C4	-7.58	106.81	110.60
25	BA	523	C	N3-C4-C5	7.58	124.93	121.90
25	BA	2083	G	N1-C6-O6	7.58	124.45	119.90
25	BA	1573	G	N3-C4-N9	-7.58	121.45	126.00
25	BA	389	G	C5-C6-O6	7.58	133.15	128.60
1	AA	1363(A)	A	N9-C4-C5	7.58	108.83	105.80
25	BA	2086	U	C5-C4-O4	7.58	130.44	125.90
25	BA	815	C	C6-N1-C2	7.57	123.33	120.30
26	BB	112	U	C5-C6-N1	-7.57	118.91	122.70
25	BA	749	C	C5-C6-N1	-7.57	117.22	121.00
25	BA	1939	U	C4-C5-C6	-7.57	115.16	119.70
25	BA	197	A	N1-C2-N3	7.57	133.08	129.30
25	BA	947	G	N9-C4-C5	-7.57	102.37	105.40
25	DA	380	U	N3-C4-O4	7.57	124.69	119.40
25	BA	935	C	C6-N1-C2	7.56	123.33	120.30
25	BA	1236	G	C8-N9-C4	7.56	109.42	106.40
25	BA	1816	G	C2-N3-C4	7.56	115.68	111.90
25	DA	330	A	C5-N7-C8	-7.56	100.12	103.90
1	AA	233	C	C6-N1-C2	-7.56	117.28	120.30
1	AA	529	G	N1-C6-O6	7.56	124.44	119.90
25	BA	2689	U	C6-N1-C1'	7.56	131.78	121.20
25	BA	859	G	C8-N9-C4	7.55	109.42	106.40
25	BA	931	G	C4-C5-N7	-7.55	107.78	110.80
25	BA	1941	C	N3-C4-C5	-7.55	118.88	121.90
25	BA	130	C	N3-C2-O2	-7.55	116.61	121.90
25	BA	2012	G	C8-N9-C4	7.55	109.42	106.40
25	BA	650	C	C6-N1-C2	-7.55	117.28	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1107	G	C2-N3-C4	7.55	115.67	111.90
25	BA	1800	C	N1-C2-O2	-7.55	114.37	118.90
25	BA	330	A	N3-C4-N9	-7.55	121.36	127.40
1	AA	518	C	N1-C2-O2	7.55	123.43	118.90
25	BA	1582	C	C5-C6-N1	-7.55	117.23	121.00
25	BA	2866	U	N1-C2-N3	7.55	119.43	114.90
25	BA	2029	G	C8-N9-C4	7.54	109.42	106.40
1	CA	28	G	C8-N9-C4	-7.54	103.38	106.40
1	AA	1290	G	C8-N9-C4	-7.54	103.38	106.40
25	BA	198	C	N3-C2-O2	-7.54	116.62	121.90
25	DA	1021	A	N1-C2-N3	7.54	133.07	129.30
25	DA	2501	C	C6-N1-C2	7.54	123.31	120.30
25	BA	308	G	N3-C4-C5	-7.54	124.83	128.60
25	BA	2634	G	C5-C6-O6	-7.54	124.08	128.60
25	BA	2743	C	C2-N3-C4	-7.54	116.13	119.90
25	BA	1839	G	C4-N9-C1'	7.54	136.30	126.50
25	BA	1107	G	C4-N9-C1'	7.53	136.29	126.50
25	DA	1204	A	C6-C5-N7	-7.53	127.03	132.30
25	BA	685	A	C8-N9-C4	-7.53	102.79	105.80
25	BA	991	C	C6-N1-C2	7.53	123.31	120.30
25	DA	2686	G	N9-C4-C5	7.53	108.41	105.40
1	AA	684	A	N1-C6-N6	-7.53	114.08	118.60
25	BA	255	A	C2-N3-C4	-7.53	106.84	110.60
25	BA	2226	C	C6-N1-C2	7.53	123.31	120.30
25	BA	113	G	N3-C4-C5	7.53	132.36	128.60
25	BA	532	A	C6-N1-C2	-7.53	114.08	118.60
25	BA	1897	G	N1-C6-O6	7.53	124.42	119.90
25	BA	2252	G	N9-C4-C5	-7.52	102.39	105.40
1	CA	1218	C	C6-N1-C2	-7.52	117.29	120.30
25	BA	2235	G	N1-C2-N2	-7.52	109.43	116.20
25	BA	2863	C	C6-N1-C2	7.52	123.31	120.30
25	DA	141	A	C2-N3-C4	-7.52	106.84	110.60
25	BA	690	G	C5-C6-O6	-7.52	124.09	128.60
25	BA	1968	G	N7-C8-N9	7.52	116.86	113.10
25	BA	2881	C	C6-N1-C2	-7.52	117.29	120.30
25	BA	970	C	C6-N1-C2	7.52	123.31	120.30
25	BA	2436	G	C5-C6-N1	7.51	115.26	111.50
25	BA	1694	C	C6-N1-C2	-7.51	117.30	120.30
25	BA	1678	G	C8-N9-C4	-7.51	103.40	106.40
25	BA	71	A	N7-C8-N9	7.50	117.55	113.80
25	BA	679	C	N1-C2-O2	-7.50	114.40	118.90
25	BA	1409	C	C6-N1-C2	7.50	123.30	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	928	G	C6-C5-N7	-7.50	125.90	130.40
25	BA	257	A	N1-C6-N6	7.50	123.10	118.60
25	BA	528	A	C8-N9-C4	-7.50	102.80	105.80
25	BA	1390	U	N3-C4-O4	7.50	124.65	119.40
1	CA	1197	G	N3-C4-C5	-7.50	124.85	128.60
25	BA	2872	G	C6-C5-N7	-7.49	125.90	130.40
25	BA	2540	C	N3-C4-C5	7.49	124.90	121.90
1	AA	684	A	N9-C4-C5	7.49	108.80	105.80
25	BA	139(A)	G	C6-C5-N7	-7.49	125.91	130.40
25	BA	245	G	C4-C5-N7	7.49	113.80	110.80
25	BA	283	A	N1-C6-N6	-7.49	114.11	118.60
25	BA	1187	G	C6-N1-C2	-7.49	120.61	125.10
1	AA	1150	U	C6-N1-C2	-7.49	116.51	121.00
1	AA	1255	G	C4-C5-N7	7.49	113.79	110.80
25	DA	2207	G	N7-C8-N9	7.49	116.84	113.10
26	BB	81	G	N1-C6-O6	7.48	124.39	119.90
26	BB	115	G	N9-C4-C5	-7.48	102.41	105.40
25	BA	1592	C	C6-N1-C2	7.48	123.29	120.30
25	DA	2224	G	N1-C6-O6	7.48	124.39	119.90
25	BA	694	U	N1-C2-O2	7.48	128.03	122.80
25	BA	2624	G	C4-C5-N7	7.48	113.79	110.80
1	AA	595	G	N1-C6-O6	-7.48	115.41	119.90
25	BA	1596	A	C6-N1-C2	-7.48	114.11	118.60
25	BA	271(J)	C	N1-C2-O2	7.47	123.39	118.90
25	BA	1204	A	C4-C5-N7	7.47	114.44	110.70
1	AA	73	G	C5-C6-O6	-7.47	124.12	128.60
25	BA	197	A	C5-N7-C8	-7.47	100.17	103.90
25	BA	695	G	N1-C6-O6	7.47	124.38	119.90
25	BA	1489	U	C5-C4-O4	7.47	130.38	125.90
26	BB	81	G	C2-N3-C4	-7.47	108.17	111.90
1	CA	893	C	N1-C2-O2	7.47	123.38	118.90
25	BA	1225	G	N1-C2-N3	7.47	128.38	123.90
1	CA	1366	C	C5-C4-N4	7.47	125.43	120.20
1	AA	266	G	C4-N9-C1'	7.47	136.21	126.50
1	AA	1530	G	N3-C4-N9	-7.46	121.52	126.00
25	BA	64	A	N1-C2-N3	7.46	133.03	129.30
25	BA	330	A	C4-C5-N7	7.46	114.43	110.70
25	BA	1001	A	C2-N3-C4	7.46	114.33	110.60
25	BA	1941	C	C6-N1-C2	-7.46	117.31	120.30
1	CA	299	G	C6-C5-N7	-7.46	125.92	130.40
25	DA	2235	G	N7-C8-N9	7.46	116.83	113.10
25	BA	1570	A	N9-C4-C5	-7.46	102.82	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2030	A	C6-C5-N7	-7.46	127.08	132.30
25	BA	1350	C	C2-N3-C4	-7.46	116.17	119.90
1	CA	314	C	C6-N1-C2	-7.46	117.32	120.30
1	CA	685	G	N3-C4-N9	-7.46	121.53	126.00
25	DA	2207	G	C6-C5-N7	-7.46	125.93	130.40
1	AA	896	C	N3-C4-C5	7.45	124.88	121.90
25	BA	1296	G	N3-C4-C5	-7.45	124.87	128.60
25	DA	36	G	N1-C6-O6	7.45	124.37	119.90
1	CA	1279	A	C4-C5-C6	7.45	120.73	117.00
1	CA	728	A	N7-C8-N9	7.45	117.53	113.80
25	BA	308	G	N1-C2-N2	-7.45	109.50	116.20
25	BA	1427	A	C5-C6-N1	7.45	121.42	117.70
25	BA	2585	U	C2-N1-C1'	7.45	126.63	117.70
25	DA	1123	C	C6-N1-C2	7.45	123.28	120.30
25	BA	2767	C	N1-C2-N3	7.44	124.41	119.20
1	AA	1091	U	C6-N1-C2	-7.44	116.53	121.00
25	BA	2319	G	N3-C2-N2	-7.44	114.69	119.90
25	BA	2720	U	C6-N1-C2	7.44	125.47	121.00
25	BA	997	G	C8-N9-C4	7.44	109.38	106.40
25	BA	1839	G	C6-C5-N7	-7.44	125.94	130.40
25	DA	391	G	C6-C5-N7	-7.44	125.94	130.40
25	BA	931	G	N3-C4-C5	-7.43	124.88	128.60
25	BA	2056	G	C5-C6-O6	-7.43	124.14	128.60
1	CA	893	C	N3-C4-C5	7.43	124.87	121.90
25	DA	980	A	N1-C6-N6	7.43	123.06	118.60
25	DA	1314	C	C6-N1-C1'	-7.43	111.89	120.80
25	DA	932	G	C4-N9-C1'	-7.43	116.84	126.50
25	BA	962	G	C6-C5-N7	-7.43	125.94	130.40
1	AA	1467	G	C4-C5-N7	-7.42	107.83	110.80
25	BA	2783	G	N1-C6-O6	7.42	124.35	119.90
25	BA	1983	C	C6-N1-C2	7.42	123.27	120.30
25	BA	1047	G	C2-N3-C4	7.42	115.61	111.90
25	BA	1959	G	C4-C5-N7	-7.42	107.83	110.80
25	BA	2700	C	C6-N1-C2	7.42	123.27	120.30
25	BA	271(S)	G	C5-C6-N1	-7.42	107.79	111.50
25	BA	1558	A	C5-C6-N1	-7.42	113.99	117.70
25	BA	1830	C	N3-C2-O2	7.42	127.09	121.90
25	BA	269	U	N1-C2-N3	-7.42	110.45	114.90
25	BA	2690	C	C6-N1-C2	-7.41	117.33	120.30
25	DA	594	U	N1-C2-O2	-7.41	117.61	122.80
25	DA	932	G	C8-N9-C1'	7.41	136.64	127.00
25	DA	645	C	C5-C6-N1	7.41	124.71	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1552	G	C4-C5-N7	-7.41	107.84	110.80
25	BA	688	U	C5-C6-N1	-7.41	119.00	122.70
25	BA	793	A	N1-C6-N6	7.41	123.04	118.60
25	DA	972	G	N1-C6-O6	-7.40	115.46	119.90
25	DA	90	U	C5-C6-N1	7.40	126.40	122.70
25	DA	2207	G	N1-C6-O6	7.40	124.34	119.90
25	BA	763	G	C6-C5-N7	-7.40	125.96	130.40
25	BA	1107	G	N3-C4-N9	7.40	130.44	126.00
1	AA	1064	G	N3-C4-N9	-7.39	121.56	126.00
25	BA	1321	A	N1-C2-N3	7.39	133.00	129.30
25	BA	2085	C	C6-N1-C2	7.39	123.26	120.30
25	BA	1815	A	C6-N1-C2	-7.39	114.16	118.60
25	DA	2599	G	N3-C2-N2	-7.39	114.72	119.90
1	AA	1519	A	C8-N9-C4	-7.39	102.84	105.80
25	DA	1828	G	N3-C4-C5	-7.39	124.91	128.60
25	BA	986	C	N3-C4-C5	7.38	124.85	121.90
25	DA	1204	A	N9-C4-C5	-7.38	102.85	105.80
25	BA	1395	A	N1-C6-N6	-7.38	114.17	118.60
1	CA	1358	U	C5-C6-N1	-7.38	119.01	122.70
25	BA	2769	C	C5-C6-N1	-7.38	117.31	121.00
1	AA	721	G	C8-N9-C1'	-7.37	117.42	127.00
25	DA	298	G	C5-C6-O6	-7.37	124.18	128.60
25	BA	2675	A	C5-N7-C8	7.37	107.58	103.90
25	BA	534	U	N1-C2-O2	-7.37	117.64	122.80
25	BA	1622	G	N3-C2-N2	-7.37	114.74	119.90
25	BA	211	A	C2-N3-C4	-7.37	106.92	110.60
25	BA	1145	C	N3-C2-O2	7.37	127.06	121.90
25	BA	1334	G	C6-C5-N7	-7.36	125.98	130.40
25	DA	1937	A	N1-C6-N6	7.36	123.02	118.60
25	BA	918	A	C5-N7-C8	-7.36	100.22	103.90
25	DA	1293	C	C4-C5-C6	-7.36	113.72	117.40
25	BA	2053	G	C5-C6-O6	-7.36	124.19	128.60
25	DA	837	C	C6-N1-C2	-7.36	117.36	120.30
25	BA	204	A	N1-C6-N6	-7.36	114.19	118.60
25	BA	1202	C	N1-C2-O2	-7.36	114.49	118.90
25	BA	777	A	N1-C2-N3	7.35	132.98	129.30
1	AA	117	G	C5-C6-O6	-7.35	124.19	128.60
25	BA	1033	U	N3-C4-C5	7.35	119.01	114.60
25	BA	1710	C	C6-N1-C2	7.35	123.24	120.30
1	AA	435	C	C5-C6-N1	7.35	124.67	121.00
25	BA	736	C	N3-C2-O2	7.35	127.05	121.90
25	BA	1302	A	C8-N9-C4	7.35	108.74	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1409	C	N3-C4-C5	7.35	124.84	121.90
25	BA	1532	C	N3-C2-O2	-7.35	116.76	121.90
1	CA	363	A	N1-C6-N6	-7.35	114.19	118.60
25	BA	2317	C	C6-N1-C2	-7.35	117.36	120.30
25	BA	2501	C	C2-N3-C4	-7.35	116.23	119.90
25	BA	2826	A	N1-C2-N3	7.34	132.97	129.30
25	BA	265	A	C5-C6-N1	-7.34	114.03	117.70
1	AA	129(A)	G	O4'-C1'-N9	7.34	114.07	108.20
25	BA	2634	G	N1-C6-O6	7.34	124.31	119.90
25	BA	2860	A	C8-N9-C4	7.34	108.74	105.80
1	AA	266	G	N7-C8-N9	7.34	116.77	113.10
25	BA	1948	G	C5-C6-O6	7.34	133.00	128.60
25	DA	337	C	C2-N3-C4	-7.34	116.23	119.90
47	D1	61	ARG	NE-CZ-NH1	-7.34	116.63	120.30
25	BA	1929	G	C4-C5-N7	-7.34	107.86	110.80
25	DA	923	C	C6-N1-C2	-7.34	117.36	120.30
25	DA	2877	G	C2-N3-C4	-7.34	108.23	111.90
25	BA	962	G	N3-C2-N2	-7.34	114.77	119.90
25	BA	2318	G	N1-C6-O6	7.33	124.30	119.90
25	DA	932	G	N3-C4-C5	7.33	132.27	128.60
25	DA	786	C	C6-N1-C2	7.33	123.23	120.30
25	DA	2412	A	N9-C4-C5	7.33	108.73	105.80
25	DA	2589	A	C8-N9-C4	7.33	108.73	105.80
25	BA	2018	G	C5-C6-O6	-7.33	124.20	128.60
25	BA	652(H)	C	C2-N3-C4	7.33	123.56	119.90
25	BA	308	G	N9-C4-C5	-7.33	102.47	105.40
25	BA	780	G	C8-N9-C1'	-7.33	117.48	127.00
25	BA	2319	G	C2-N3-C4	-7.33	108.24	111.90
25	BA	973	A	N1-C2-N3	7.32	132.96	129.30
25	BA	2736	G	C5-C6-O6	-7.32	124.20	128.60
25	BA	2820	A	C8-N9-C4	7.32	108.73	105.80
25	BA	134	C	N3-C2-O2	-7.32	116.78	121.90
25	BA	2820	A	C4-C5-N7	7.32	114.36	110.70
25	BA	1237	A	N1-C6-N6	-7.32	114.21	118.60
25	DA	265	A	C2-N3-C4	-7.32	106.94	110.60
25	DA	2644	G	C5-C6-O6	7.32	132.99	128.60
25	BA	575	A	C6-C5-N7	-7.32	127.18	132.30
25	BA	1558	A	C4-C5-N7	7.32	114.36	110.70
25	BA	2686	G	C5-C6-N1	-7.32	107.84	111.50
25	DA	2700	C	C6-N1-C2	7.31	123.23	120.30
1	AA	1145	C	N1-C2-O2	7.31	123.29	118.90
25	BA	1333	C	N3-C4-C5	7.31	124.83	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2700	C	C5-C6-N1	-7.31	117.34	121.00
25	BA	1435	G	C6-C5-N7	-7.31	126.01	130.40
25	DA	1210	A	C4-C5-N7	7.31	114.36	110.70
1	AA	129(A)	G	C8-N9-C1'	-7.31	117.50	127.00
25	BA	139(A)	G	N9-C4-C5	-7.31	102.48	105.40
25	BA	2624	G	N9-C4-C5	-7.31	102.48	105.40
25	BA	2738	A	C8-N9-C4	7.31	108.72	105.80
25	BA	113	G	N1-C6-O6	7.30	124.28	119.90
25	DA	620	G	C8-N9-C4	-7.30	103.48	106.40
1	AA	541	G	C6-C5-N7	7.30	134.78	130.40
1	CA	853	G	C8-N9-C4	-7.30	103.48	106.40
1	AA	1519	A	C5-C6-N6	7.30	129.54	123.70
25	BA	804	A	N1-C2-N3	7.30	132.95	129.30
25	DA	748	G	C5-C6-N1	7.30	115.15	111.50
25	BA	229	A	C8-N9-C4	-7.30	102.88	105.80
25	DA	1983	C	C5-C6-N1	-7.30	117.35	121.00
25	BA	2232	U	N3-C2-O2	-7.29	117.09	122.20
1	CA	816	A	N1-C6-N6	-7.29	114.22	118.60
25	BA	1204	A	C4-C5-C6	7.29	120.65	117.00
25	DA	614	U	C5-C4-O4	7.29	130.27	125.90
26	BB	53	A	N7-C8-N9	7.29	117.44	113.80
25	BA	2240	C	C6-N1-C2	7.29	123.22	120.30
1	AA	76	C	N1-C2-O2	7.29	123.27	118.90
25	BA	2054	A	N1-C2-N3	7.28	132.94	129.30
25	BA	941	A	C6-C5-N7	-7.28	127.20	132.30
25	BA	190	A	N7-C8-N9	7.28	117.44	113.80
25	BA	2052	G	C4-C5-N7	7.28	113.71	110.80
1	AA	336	C	N3-C2-O2	7.28	126.99	121.90
25	BA	2429	G	C6-N1-C2	-7.28	120.73	125.10
1	AA	791	G	N1-C6-O6	7.27	124.26	119.90
1	AA	1431	C	N3-C2-O2	7.27	126.99	121.90
25	BA	1210	A	N1-C6-N6	7.27	122.96	118.60
25	BA	1295	C	N3-C4-N4	-7.27	112.91	118.00
1	CA	1356	G	C8-N9-C4	-7.27	103.49	106.40
25	DA	178	G	N9-C4-C5	7.27	108.31	105.40
25	BA	503	A	C8-N9-C4	-7.27	102.89	105.80
25	BA	686	G	N1-C2-N2	-7.27	109.66	116.20
1	AA	781	A	N1-C6-N6	7.27	122.96	118.60
1	AA	863	U	C2-N1-C1'	-7.27	108.98	117.70
25	BA	2450	A	N7-C8-N9	7.27	117.43	113.80
25	BA	772	C	C5-C6-N1	-7.27	117.37	121.00
25	BA	1721	G	N3-C4-N9	-7.27	121.64	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1926	U	N3-C2-O2	-7.27	117.11	122.20
25	BA	2083	G	C2-N3-C4	-7.26	108.27	111.90
25	DA	2733	A	C8-N9-C4	-7.26	102.89	105.80
25	BA	12	U	C2-N1-C1'	7.26	126.41	117.70
25	BA	1415	U	C5-C6-N1	-7.26	119.07	122.70
25	BA	2755	C	C5-C6-N1	7.26	124.63	121.00
1	CA	73	G	N1-C6-O6	-7.26	115.54	119.90
43	DX	57	LEU	CA-CB-CG	7.26	132.00	115.30
25	BA	529	A	C5-C6-N6	-7.26	117.89	123.70
25	DA	1293	C	C5-C4-N4	-7.25	115.12	120.20
25	BA	13	A	N1-C6-N6	-7.25	114.25	118.60
25	BA	1605	C	C6-N1-C2	-7.25	117.40	120.30
25	DA	80	G	N3-C4-C5	-7.25	124.97	128.60
25	BA	1334	G	C2-N3-C4	-7.25	108.28	111.90
26	BB	68	C	C6-N1-C2	7.25	123.20	120.30
25	BA	2273	A	C8-N9-C4	-7.25	102.90	105.80
25	DA	2755	C	C5-C6-N1	7.25	124.62	121.00
25	BA	2014	A	C8-N9-C4	7.25	108.70	105.80
25	BA	2625	G	C4-C5-N7	-7.24	107.90	110.80
25	DA	303	U	C5-C6-N1	-7.24	119.08	122.70
25	DA	2501	C	N3-C4-C5	7.24	124.80	121.90
25	BA	1123	C	N1-C2-O2	-7.24	114.56	118.90
25	DA	188	G	C4-C5-N7	7.24	113.70	110.80
1	AA	1496	C	C5-C6-N1	-7.24	117.38	121.00
25	BA	399	G	C8-N9-C4	7.24	109.30	106.40
25	BA	2377	A	N1-C6-N6	7.24	122.94	118.60
25	DA	778	G	C2-N3-C4	-7.24	108.28	111.90
25	BA	127	A	C4-C5-C6	-7.23	113.38	117.00
25	BA	2512	C	N3-C4-C5	7.23	124.79	121.90
25	DA	933	A	C8-N9-C4	-7.23	102.91	105.80
25	BA	803	U	C5-C6-N1	-7.23	119.08	122.70
25	BA	2489	G	N9-C4-C5	-7.23	102.51	105.40
25	DA	399	G	C5-C6-O6	-7.23	124.26	128.60
1	AA	1260	C	C6-N1-C2	-7.23	117.41	120.30
25	BA	727	A	C5-N7-C8	-7.23	100.29	103.90
25	DA	1618	A	C8-N9-C4	-7.23	102.91	105.80
1	AA	157	G	C8-N9-C4	-7.23	103.51	106.40
25	BA	2605	U	N3-C2-O2	-7.23	117.14	122.20
25	DA	71	A	C8-N9-C4	-7.22	102.91	105.80
25	BA	847	U	C2-N3-C4	-7.22	122.67	127.00
25	BA	1234	U	N3-C4-O4	7.22	124.45	119.40
25	DA	458	G	N1-C6-O6	-7.22	115.57	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	185	U	N3-C2-O2	-7.22	117.15	122.20
25	BA	308	G	C4-C5-C6	7.22	123.13	118.80
25	BA	2322	A	N1-C6-N6	7.22	122.93	118.60
25	DA	1965	C	C6-N1-C2	7.22	123.19	120.30
1	CA	1158	C	N3-C2-O2	-7.21	116.85	121.90
1	CA	1410	G	C8-N9-C4	7.21	109.29	106.40
25	DA	2624	G	N1-C6-O6	7.21	124.23	119.90
25	BA	1781	C	N3-C4-C5	7.21	124.78	121.90
25	BA	1972	A	C5-N7-C8	-7.21	100.29	103.90
25	BA	1977	A	C8-N9-C4	7.21	108.69	105.80
25	BA	186	G	C8-N9-C4	7.21	109.28	106.40
25	BA	506	G	C5-C6-N1	7.21	115.11	111.50
25	BA	659	C	N3-C4-C5	7.21	124.78	121.90
25	BA	2252	G	C8-N9-C4	7.21	109.28	106.40
25	BA	2511	U	N1-C2-N3	7.21	119.23	114.90
25	BA	2387	U	N1-C2-O2	-7.21	117.75	122.80
1	CA	1373	G	N3-C4-C5	-7.21	125.00	128.60
1	AA	883	C	C2-N1-C1'	7.21	126.73	118.80
1	CA	1518	A	C8-N9-C4	-7.21	102.92	105.80
25	BA	127	A	N9-C4-C5	-7.21	102.92	105.80
1	AA	873	A	C8-N9-C4	-7.20	102.92	105.80
25	BA	1928	A	C2-N3-C4	7.20	114.20	110.60
25	DA	2609	U	N1-C2-N3	7.20	119.22	114.90
1	CA	1519	A	N7-C8-N9	7.20	117.40	113.80
25	BA	2716	U	C5-C6-N1	-7.20	119.10	122.70
33	BN	25	ARG	NE-CZ-NH1	-7.20	116.70	120.30
25	DA	1960	A	C8-N9-C4	7.20	108.68	105.80
25	BA	525	U	N1-C2-N3	7.19	119.22	114.90
25	BA	1251	C	C6-N1-C2	-7.19	117.42	120.30
25	BA	1487	G	N7-C8-N9	7.19	116.69	113.10
25	BA	1619	G	N7-C8-N9	7.19	116.69	113.10
25	DA	2058	A	N7-C8-N9	7.19	117.39	113.80
25	BA	2105	C	N1-C2-O2	7.19	123.21	118.90
25	BA	216	A	N1-C2-N3	7.19	132.89	129.30
25	DA	975	C	N3-C2-O2	-7.19	116.87	121.90
25	BA	1128	A	C8-N9-C4	7.19	108.67	105.80
1	AA	1363(A)	A	C5-C6-N1	7.18	121.29	117.70
25	BA	435	C	N1-C2-O2	7.18	123.21	118.90
26	BB	20	C	C5-C6-N1	7.18	124.59	121.00
25	DA	2595	G	C5-N7-C8	-7.18	100.71	104.30
1	AA	365	U	C2-N1-C1'	-7.18	109.08	117.70
25	BA	204	A	N9-C4-C5	7.18	108.67	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1241	A	C8-N9-C4	7.18	108.67	105.80
25	BA	1838	C	C6-N1-C2	7.18	123.17	120.30
25	BA	1125	G	C5-C6-N1	-7.18	107.91	111.50
25	BA	1989	G	N1-C6-O6	7.18	124.21	119.90
25	BA	2768	C	C5-C6-N1	-7.18	117.41	121.00
1	CA	1373	G	N3-C4-N9	7.18	130.31	126.00
25	DA	1820	U	C6-N1-C2	7.18	125.31	121.00
25	BA	759	G	C8-N9-C4	7.17	109.27	106.40
25	BA	807	U	N1-C2-N3	7.17	119.20	114.90
25	BA	947	G	C4-C5-N7	7.17	113.67	110.80
25	DA	1607	C	C6-N1-C2	7.17	123.17	120.30
25	BA	575	A	N1-C6-N6	7.17	122.90	118.60
25	BA	1373	A	C5-C6-N1	7.17	121.29	117.70
25	BA	2520	C	N1-C2-O2	-7.17	114.60	118.90
25	DA	728	G	C8-N9-C4	7.17	109.27	106.40
25	DA	1970	A	C8-N9-C4	-7.17	102.93	105.80
1	AA	1482	G	N3-C4-N9	7.17	130.30	126.00
25	BA	1188	U	N3-C4-O4	7.17	124.42	119.40
1	CA	917	G	C8-N9-C4	-7.17	103.53	106.40
25	DA	1670	C	N3-C4-C5	-7.17	119.03	121.90
25	BA	1258	C	C5-C6-N1	-7.17	117.42	121.00
25	BA	2468	G	C6-C5-N7	-7.17	126.10	130.40
25	DA	271(O)	C	N1-C2-O2	7.17	123.20	118.90
1	AA	307	C	C6-N1-C2	-7.17	117.43	120.30
25	BA	272	G	N3-C4-C5	-7.17	125.02	128.60
25	BA	2388	A	N9-C4-C5	7.17	108.67	105.80
25	BA	749	C	C6-N1-C2	7.16	123.17	120.30
25	DA	1353	A	N9-C4-C5	7.16	108.67	105.80
25	BA	734	A	C2-N3-C4	-7.16	107.02	110.60
25	BA	941	A	N1-C6-N6	7.16	122.90	118.60
25	BA	2512	C	N1-C2-O2	-7.16	114.60	118.90
25	DA	1932	A	N7-C8-N9	7.16	117.38	113.80
1	AA	219	C	C6-N1-C2	-7.16	117.44	120.30
25	DA	2781	A	N1-C6-N6	-7.16	114.31	118.60
25	BA	561	G	N1-C6-O6	-7.15	115.61	119.90
25	BA	1007	C	C2-N3-C4	-7.15	116.32	119.90
25	BA	15	G	C2-N3-C4	-7.15	108.33	111.90
25	BA	1306	C	N1-C2-O2	-7.15	114.61	118.90
25	DA	450	G	C4-C5-C6	7.15	123.09	118.80
25	DA	1223	G	N3-C4-N9	-7.15	121.71	126.00
1	AA	1206	G	C5-C6-O6	-7.14	124.31	128.60
25	BA	688	U	N1-C2-O2	-7.14	117.80	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2020	A	N1-C2-N3	7.14	132.87	129.30
25	BA	2588	G	C5-C6-O6	7.14	132.89	128.60
25	BA	236	C	C2-N3-C4	-7.14	116.33	119.90
25	DA	2607	G	N3-C4-N9	7.14	130.29	126.00
25	BA	777	A	N1-C6-N6	-7.14	114.31	118.60
25	BA	1937	A	N1-C6-N6	7.14	122.88	118.60
25	BA	2445	G	N1-C2-N3	7.14	128.19	123.90
25	DA	820	A	N1-C6-N6	-7.14	114.32	118.60
1	AA	1430	C	C6-N1-C2	7.14	123.16	120.30
25	BA	1034	G	N3-C2-N2	-7.14	114.91	119.90
1	CA	1187	G	N3-C2-N2	-7.13	114.91	119.90
25	BA	1781	C	C5-C4-N4	-7.13	115.21	120.20
25	BA	2776	A	C2-N3-C4	-7.13	107.03	110.60
25	BA	2855	C	N3-C4-C5	7.13	124.75	121.90
25	DA	1934	C	N3-C4-C5	7.13	124.75	121.90
1	AA	317	G	C5-C6-O6	-7.13	124.32	128.60
1	AA	1266	G	N1-C6-O6	7.13	124.18	119.90
22	AY	26	GLY	N-CA-C	7.13	130.93	113.10
25	BA	1377	G	N9-C4-C5	7.13	108.25	105.40
25	BA	1602	U	C5-C6-N1	-7.13	119.14	122.70
25	BA	192	C	N3-C4-C5	7.13	124.75	121.90
25	BA	2088	G	N1-C2-N3	7.13	128.18	123.90
25	BA	1333	C	C2-N1-C1'	7.12	126.64	118.80
25	DA	1769	G	C8-N9-C4	-7.12	103.55	106.40
25	DA	2373	G	C8-N9-C4	7.12	109.25	106.40
25	BA	139(A)	G	C4-N9-C1'	7.12	135.76	126.50
25	BA	141	A	C4-C5-C6	7.12	120.56	117.00
25	BA	148	C	C2-N3-C4	-7.12	116.34	119.90
25	BA	461	C	C6-N1-C2	-7.12	117.45	120.30
25	BA	2729	G	C2-N3-C4	-7.12	108.34	111.90
25	BA	113	G	N3-C4-N9	-7.12	121.73	126.00
25	BA	1142(A)	A	C4-C5-N7	7.12	114.26	110.70
25	DA	2755	C	C2-N1-C1'	7.12	126.63	118.80
25	BA	1107	G	N3-C4-C5	-7.12	125.04	128.60
25	DA	1979	C	N3-C4-C5	-7.12	119.05	121.90
25	BA	763	G	N1-C2-N3	7.12	128.17	123.90
25	BA	1607	C	C2-N1-C1'	7.12	126.63	118.80
25	BA	1950	G	N1-C6-O6	7.12	124.17	119.90
25	DA	1776	G	C6-C5-N7	-7.12	126.13	130.40
25	BA	1933	G	N1-C6-O6	7.11	124.17	119.90
25	BA	1204	A	C4-N9-C1'	7.11	139.10	126.30
25	BA	122	G	C5-C6-N1	-7.11	107.94	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2730	C	C6-N1-C2	7.11	123.14	120.30
26	BB	95	C	N3-C2-O2	7.11	126.88	121.90
25	BA	2512	C	C2-N3-C4	-7.11	116.35	119.90
25	BA	2228	G	C4-N9-C1'	7.10	135.74	126.50
25	DA	2423	U	C2-N1-C1'	-7.10	109.18	117.70
1	AA	890	G	C5-C6-O6	7.10	132.86	128.60
1	CA	1391	U	C5-C4-O4	7.10	130.16	125.90
1	AA	1255	G	N3-C4-N9	7.10	130.26	126.00
25	BA	801	G	N1-C6-O6	-7.10	115.64	119.90
25	BA	878	A	C8-N9-C4	-7.10	102.96	105.80
25	DA	1273	U	C5-C6-N1	-7.10	119.15	122.70
1	AA	166	G	N3-C4-N9	7.10	130.26	126.00
1	AA	721	G	C4-N9-C1'	7.10	135.73	126.50
1	AA	1518	A	C5-C6-N6	7.10	129.38	123.70
25	BA	457	A	N1-C6-N6	-7.10	114.34	118.60
25	BA	809	G	C8-N9-C4	-7.10	103.56	106.40
25	BA	2067	G	C5-C6-N1	7.10	115.05	111.50
25	BA	1807	G	C6-C5-N7	-7.10	126.14	130.40
25	DA	2286	A	C2-N3-C4	-7.10	107.05	110.60
25	BA	1197	G	C8-N9-C4	7.09	109.24	106.40
1	CA	129(A)	G	O4'-C1'-N9	7.09	113.88	108.20
25	DA	512	G	N9-C4-C5	7.09	108.24	105.40
25	BA	580	C	C6-N1-C2	7.09	123.14	120.30
25	DA	1135	C	N1-C2-O2	7.09	123.16	118.90
25	BA	1285	G	N3-C4-C5	-7.09	125.05	128.60
1	AA	794	A	C2-N3-C4	-7.09	107.06	110.60
25	BA	97	C	N3-C4-C5	-7.09	119.06	121.90
25	BA	1130	U	N3-C2-O2	-7.09	117.24	122.20
25	BA	2072	G	C6-C5-N7	-7.09	126.15	130.40
25	DA	1999	C	C5-C6-N1	-7.09	117.45	121.00
25	BA	179	G	C4-C5-C6	7.09	123.05	118.80
25	BA	1889	A	N1-C6-N6	7.09	122.85	118.60
25	BA	2719	G	C4-C5-N7	7.09	113.64	110.80
25	BA	569	U	N1-C2-O2	-7.08	117.84	122.80
25	BA	2522	U	N3-C4-O4	7.08	124.36	119.40
1	CA	892	A	N1-C6-N6	7.08	122.85	118.60
25	DA	747	U	C2-N1-C1'	7.08	126.20	117.70
1	CA	831	U	C6-N1-C2	-7.08	116.75	121.00
25	BA	205	G	C8-N9-C4	7.08	109.23	106.40
25	BA	2686	G	C4-C5-C6	7.08	123.05	118.80
25	BA	151	C	C5-C6-N1	-7.08	117.46	121.00
25	BA	1012	U	N3-C4-O4	7.08	124.35	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1338	G	N9-C4-C5	-7.08	102.57	105.40
25	BA	1972	A	N7-C8-N9	7.08	117.34	113.80
4	CD	31	CYS	N-CA-CB	7.08	123.34	110.60
1	CA	546	G	N1-C6-O6	-7.08	115.65	119.90
25	DA	1830	C	C4-C5-C6	-7.08	113.86	117.40
25	DA	1355	G	N1-C6-O6	7.07	124.14	119.90
25	BA	1238	G	C5-C6-O6	-7.07	124.36	128.60
18	AR	55	ARG	NE-CZ-NH1	7.07	123.83	120.30
25	BA	2260	C	N3-C2-O2	-7.07	116.95	121.90
1	AA	1519	A	C5-C6-N1	-7.07	114.17	117.70
25	BA	1149	G	C2-N3-C4	-7.07	108.37	111.90
25	BA	1966	A	C8-N9-C4	7.07	108.63	105.80
25	BA	2247	A	N1-C2-N3	7.07	132.83	129.30
1	CA	579	G	N3-C4-C5	-7.07	125.07	128.60
25	DA	803	U	N3-C2-O2	-7.07	117.25	122.20
25	BA	1570	A	C4-C5-N7	7.06	114.23	110.70
1	AA	1456	G	C8-N9-C4	7.06	109.22	106.40
25	BA	179	G	N1-C6-O6	7.06	124.14	119.90
25	BA	211	A	N1-C2-N3	7.06	132.83	129.30
25	BA	2869	G	C4-C5-N7	-7.06	107.97	110.80
9	AI	107	ARG	NE-CZ-NH1	7.06	123.83	120.30
25	DA	113	G	N3-C4-C5	7.06	132.13	128.60
25	BA	2040	C	N3-C2-O2	7.06	126.84	121.90
25	BA	2380	C	N3-C4-N4	-7.06	113.06	118.00
25	BA	2848	G	C8-N9-C4	-7.06	103.58	106.40
25	DA	2512	C	N1-C2-O2	-7.06	114.67	118.90
25	BA	1769	G	C5-C6-O6	-7.06	124.37	128.60
1	CA	1277	C	N1-C2-O2	7.05	123.13	118.90
25	DA	1201	C	C6-N1-C2	7.05	123.12	120.30
25	DA	1531	C	C6-N1-C2	-7.05	117.48	120.30
25	BA	961	C	C4-C5-C6	7.05	120.92	117.40
25	BA	1410	G	C8-N9-C4	7.05	109.22	106.40
25	BA	1796	U	N3-C2-O2	7.05	127.13	122.20
25	BA	432	A	C8-N9-C4	7.05	108.62	105.80
25	BA	1213	A	N1-C2-N3	7.05	132.82	129.30
25	BA	2768	C	N3-C4-C5	7.05	124.72	121.90
25	BA	1417	C	C4-C5-C6	7.04	120.92	117.40
35	DP	45	LEU	CA-CB-CG	-7.04	99.10	115.30
1	AA	511	C	N1-C2-O2	-7.04	114.68	118.90
1	AA	817	C	N1-C2-N3	-7.04	114.27	119.20
25	BA	856	C	C5-C6-N1	7.04	124.52	121.00
25	BA	866	A	N7-C8-N9	7.04	117.32	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1761	C	C5-C4-N4	-7.04	115.27	120.20
25	BA	2351	G	N1-C6-O6	-7.04	115.67	119.90
25	DA	774	A	C8-N9-C4	-7.04	102.98	105.80
25	BA	1793	C	C6-N1-C2	-7.04	117.48	120.30
25	BA	1904	G	N7-C8-N9	-7.04	109.58	113.10
25	BA	611	C	C6-N1-C2	7.04	123.11	120.30
25	BA	1337	G	C5-C6-O6	-7.04	124.38	128.60
25	BA	128	C	C6-N1-C2	7.03	123.11	120.30
25	BA	1579	A	C6-C5-N7	-7.03	127.38	132.30
25	DA	991	C	C5-C6-N1	7.03	124.52	121.00
1	AA	1363(A)	A	C8-N9-C4	-7.03	102.99	105.80
25	BA	699	A	C5-C6-N6	-7.03	118.08	123.70
1	AA	928	G	C4-C5-N7	7.03	113.61	110.80
25	BA	122	G	N3-C2-N2	-7.03	114.98	119.90
25	BA	2585	U	N3-C4-C5	7.03	118.82	114.60
1	CA	1523	G	N9-C4-C5	7.03	108.21	105.40
25	DA	12	U	N1-C2-O2	7.03	127.72	122.80
25	DA	2023	G	N3-C4-N9	7.03	130.22	126.00
25	BA	72	U	N1-C2-O2	-7.03	117.88	122.80
25	BA	2323	G	C5-C6-O6	-7.03	124.38	128.60
1	AA	812	C	N3-C2-O2	-7.02	116.98	121.90
25	BA	784	A	C8-N9-C4	-7.02	102.99	105.80
25	BA	2820	A	N1-C6-N6	7.02	122.81	118.60
25	BA	333	G	C8-N9-C4	-7.02	103.59	106.40
25	BA	645	C	C6-N1-C1'	-7.02	112.38	120.80
25	DA	303	U	C6-N1-C2	7.02	125.21	121.00
23	AV	1	C	C5-C6-N1	7.02	124.51	121.00
25	DA	2583	G	N1-C6-O6	-7.02	115.69	119.90
25	BA	733	G	C6-N1-C2	-7.01	120.89	125.10
25	BA	1301	A	C4-C5-C6	7.01	120.51	117.00
25	BA	1603	A	C8-N9-C4	-7.01	102.99	105.80
25	BA	1619	G	C5-N7-C8	-7.01	100.79	104.30
25	BA	1664	A	N1-C6-N6	-7.01	114.39	118.60
25	DA	2033	A	N1-C6-N6	-7.01	114.39	118.60
25	DA	2714	G	N1-C6-O6	7.01	124.11	119.90
25	BA	2581	G	N7-C8-N9	7.01	116.61	113.10
25	BA	1340	U	N1-C2-O2	-7.01	117.89	122.80
25	BA	1435	G	N1-C6-O6	7.01	124.11	119.90
1	CA	194	C	C5-C6-N1	7.01	124.50	121.00
25	DA	2206	G	N3-C4-C5	7.01	132.10	128.60
1	AA	299	G	N3-C4-N9	-7.00	121.80	126.00
25	BA	736	C	N1-C2-O2	-7.00	114.70	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	333	G	N1-C6-O6	7.00	124.10	119.90
25	DA	265	A	C4-C5-C6	7.00	120.50	117.00
25	BA	1555	G	C5-C6-O6	-7.00	124.40	128.60
25	BA	1675	C	N3-C4-C5	-7.00	119.10	121.90
25	BA	2616	C	N3-C4-C5	7.00	124.70	121.90
25	DA	503	A	N1-C6-N6	-7.00	114.40	118.60
25	BA	693	C	N1-C2-O2	7.00	123.10	118.90
25	BA	2431	U	N1-C2-N3	7.00	119.10	114.90
1	AA	15	G	C4-N9-C1'	6.99	135.59	126.50
25	BA	458	G	C4-C5-N7	-6.99	108.00	110.80
25	DA	2624	G	C5-C6-O6	-6.99	124.41	128.60
25	BA	404	C	C6-N1-C1'	6.99	129.19	120.80
25	BA	648	G	N1-C2-N2	-6.99	109.91	116.20
25	BA	807	U	C2-N3-C4	-6.99	122.81	127.00
25	BA	1709	U	C5-C4-O4	6.99	130.09	125.90
25	BA	97	C	C4-C5-C6	6.99	120.89	117.40
25	BA	812	C	N1-C2-O2	-6.99	114.71	118.90
25	DA	1273	U	C2-N3-C4	-6.99	122.81	127.00
25	DA	1798	U	C5-C6-N1	-6.98	119.21	122.70
25	BA	531	C	C5-C6-N1	-6.98	117.51	121.00
25	DA	2326	C	N1-C2-O2	-6.98	114.71	118.90
25	BA	702	G	C8-N9-C4	6.98	109.19	106.40
25	BA	727	A	C5-C6-N6	-6.98	118.12	123.70
25	BA	2008	C	N3-C4-N4	6.98	122.89	118.00
25	DA	2238	G	N1-C6-O6	6.98	124.09	119.90
25	DA	1408	C	N3-C4-N4	6.98	122.88	118.00
25	BA	115	C	C6-N1-C2	6.97	123.09	120.30
25	BA	645	C	C4-C5-C6	-6.97	113.91	117.40
25	BA	1210	A	N3-C4-C5	6.97	131.68	126.80
25	DA	1235	G	C5-C6-O6	6.97	132.78	128.60
25	DA	1425	G	C5-C6-N1	-6.97	108.01	111.50
25	DA	2587	A	C6-C5-N7	-6.97	127.42	132.30
1	AA	785	G	N1-C6-O6	6.97	124.08	119.90
25	BA	1372	U	C5-C4-O4	-6.97	121.72	125.90
25	BA	582	G	N1-C6-O6	-6.97	115.72	119.90
25	DA	972	G	C8-N9-C4	-6.97	103.61	106.40
25	BA	1304	C	C6-N1-C2	6.97	123.09	120.30
1	AA	1358	U	N1-C2-N3	6.97	119.08	114.90
25	BA	143	G	C8-N9-C4	6.97	109.19	106.40
25	BA	179	G	C6-C5-N7	-6.97	126.22	130.40
25	BA	1823	G	N9-C4-C5	-6.97	102.61	105.40
25	DA	1553	A	N1-C6-N6	-6.96	114.42	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1005	C	N3-C2-O2	-6.96	117.03	121.90
25	BA	2605	U	N3-C4-O4	-6.96	114.53	119.40
26	BB	85	G	N3-C4-C5	-6.96	125.12	128.60
25	DA	1672	C	C6-N1-C2	6.96	123.08	120.30
1	AA	1150	U	C5-C6-N1	6.96	126.18	122.70
25	BA	2232	U	N1-C2-N3	6.96	119.08	114.90
25	DA	51	G	N3-C4-C5	-6.96	125.12	128.60
25	BA	2628	C	N3-C4-C5	6.96	124.68	121.90
25	BA	941	A	C4-C5-C6	6.95	120.48	117.00
25	BA	1314	C	C6-N1-C2	6.95	123.08	120.30
25	BA	1555	G	N1-C6-O6	6.95	124.07	119.90
25	DA	783	A	C2-N3-C4	6.95	114.08	110.60
25	DA	1558	A	C4-C5-C6	6.95	120.48	117.00
25	BA	2877	G	N3-C4-C5	6.95	132.08	128.60
25	DA	1926	U	N1-C2-N3	6.95	119.07	114.90
25	DA	2253	G	C5-C6-O6	-6.95	124.43	128.60
25	BA	765	G	N1-C6-O6	6.95	124.07	119.90
25	BA	1315	C	N1-C2-N3	6.95	124.06	119.20
1	CA	1502	A	C5-N7-C8	-6.95	100.43	103.90
25	BA	1133	U	C5-C6-N1	-6.95	119.23	122.70
25	BA	2624	G	C6-C5-N7	-6.95	126.23	130.40
25	BA	1983	C	C5-C6-N1	-6.94	117.53	121.00
25	BA	2228	G	N3-C4-N9	6.94	130.16	126.00
25	DA	271(M)	G	C6-C5-N7	-6.94	126.23	130.40
25	BA	652(S)	C	C5-C6-N1	6.94	124.47	121.00
1	AA	1496	C	C2-N3-C4	-6.94	116.43	119.90
25	BA	51	G	C4-C5-N7	-6.94	108.03	110.80
25	BA	463	G	N3-C2-N2	6.94	124.76	119.90
1	AA	1475	G	N7-C8-N9	6.94	116.57	113.10
25	BA	1776	G	C4-C5-N7	6.94	113.57	110.80
25	DA	2689	U	N1-C2-N3	6.94	119.06	114.90
25	BA	1275	A	C4-C5-C6	6.93	120.47	117.00
25	DA	2286	A	C4-C5-N7	6.93	114.17	110.70
25	BA	774	A	C8-N9-C4	-6.93	103.03	105.80
25	DA	2039	C	C2-N1-C1'	6.93	126.43	118.80
25	DA	459	U	C5-C4-O4	6.93	130.06	125.90
25	DA	1905	C	N3-C2-O2	-6.93	117.05	121.90
25	BA	149	A	N1-C2-N3	6.93	132.76	129.30
25	BA	2447	G	C6-N1-C2	-6.93	120.94	125.10
1	CA	1324	A	C8-N9-C4	-6.93	103.03	105.80
25	BA	1286	A	N1-C2-N3	6.92	132.76	129.30
25	BA	1570	A	C5-C6-N6	-6.92	118.16	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2607	G	C6-C5-N7	-6.92	126.25	130.40
1	AA	731	G	N3-C2-N2	-6.92	115.05	119.90
25	BA	90	U	N1-C2-O2	6.92	127.64	122.80
25	BA	179	G	C8-N9-C1'	-6.92	118.00	127.00
26	BB	45	A	N1-C2-N3	6.92	132.76	129.30
25	BA	1028	A	C5-C6-N1	6.92	121.16	117.70
25	BA	1187	G	N3-C2-N2	-6.92	115.06	119.90
25	BA	2721	A	N1-C6-N6	6.92	122.75	118.60
25	BA	203	C	N1-C2-O2	-6.92	114.75	118.90
25	BA	1701	A	N1-C6-N6	6.92	122.75	118.60
25	DA	1372	U	C2-N1-C1'	6.92	126.00	117.70
25	BA	231	C	C4-C5-C6	6.92	120.86	117.40
25	BA	320	A	N1-C6-N6	6.92	122.75	118.60
25	BA	132	G	C8-N9-C4	6.91	109.17	106.40
25	BA	1332	G	C8-N9-C4	-6.91	103.63	106.40
25	DA	1531	C	C5-C6-N1	6.91	124.46	121.00
25	BA	185	U	C2-N3-C4	-6.91	122.85	127.00
25	BA	568	U	C5-C6-N1	-6.91	119.25	122.70
25	BA	700	G	N9-C4-C5	6.91	108.17	105.40
25	BA	1142(A)	A	N1-C6-N6	6.91	122.75	118.60
25	BA	2261	C	C4-C5-C6	6.91	120.86	117.40
25	BA	2508	G	N1-C6-O6	6.91	124.05	119.90
25	BA	1949	G	C2-N3-C4	-6.91	108.45	111.90
25	BA	2894	G	C5-C6-N1	-6.91	108.05	111.50
26	BB	80	U	N3-C4-C5	-6.91	110.45	114.60
25	DA	2732	G	C5-C6-N1	6.91	114.95	111.50
25	BA	689	A	C5-C6-N6	6.91	129.22	123.70
25	BA	2056	G	N9-C4-C5	-6.91	102.64	105.40
25	BA	1333	C	C6-N1-C1'	-6.91	112.51	120.80
25	DA	2695	C	N3-C4-C5	6.91	124.66	121.90
1	AA	319	G	C5-C6-O6	-6.90	124.46	128.60
25	BA	430	G	C6-C5-N7	-6.90	126.26	130.40
25	BA	1430	C	N3-C4-C5	-6.90	119.14	121.90
25	DA	399	G	N1-C6-O6	6.90	124.04	119.90
25	BA	412	A	C8-N9-C4	6.90	108.56	105.80
25	BA	1604	C	C5-C4-N4	-6.90	115.37	120.20
1	CA	1267	C	N3-C2-O2	-6.90	117.07	121.90
1	AA	576	G	N3-C4-N9	6.90	130.14	126.00
25	DA	2063	C	N1-C2-O2	-6.90	114.76	118.90
1	AA	576	G	C6-C5-N7	-6.90	126.26	130.40
25	BA	224	G	N3-C4-N9	6.89	130.14	126.00
25	BA	236	C	N3-C4-C5	6.89	124.66	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	259	G	C2-N3-C4	-6.89	108.45	111.90
25	BA	530	G	C5-N7-C8	-6.89	100.85	104.30
25	BA	2374	C	C5-C6-N1	-6.89	117.55	121.00
25	DA	2622	C	C6-N1-C2	6.89	123.06	120.30
25	BA	587	C	C5-C4-N4	6.89	125.02	120.20
25	BA	2033	A	N7-C8-N9	-6.89	110.36	113.80
25	BA	205	G	C6-C5-N7	-6.89	126.27	130.40
25	BA	2510	C	C5-C6-N1	-6.89	117.56	121.00
25	BA	973	A	C4-C5-C6	6.88	120.44	117.00
25	BA	1003	G	C5-C6-O6	-6.88	124.47	128.60
25	BA	1937	A	C4-C5-C6	6.88	120.44	117.00
25	DA	2877	G	N3-C4-C5	6.88	132.04	128.60
25	BA	113	G	N3-C2-N2	-6.88	115.08	119.90
25	BA	1828	G	N3-C4-N9	6.88	130.13	126.00
1	AA	513	C	C6-N1-C1'	-6.88	112.54	120.80
25	BA	708	C	N1-C2-O2	6.88	123.03	118.90
25	BA	2201	C	N3-C4-C5	6.88	124.65	121.90
25	BA	503	A	N1-C2-N3	6.88	132.74	129.30
25	BA	2791	C	C5-C6-N1	6.88	124.44	121.00
26	BB	41	U	C2-N3-C4	-6.88	122.87	127.00
1	AA	740	U	C2-N1-C1'	-6.88	109.45	117.70
25	BA	1494	A	C8-N9-C4	-6.88	103.05	105.80
25	DA	2324	C	C6-N1-C2	6.88	123.05	120.30
1	AA	1431	C	C6-N1-C2	6.87	123.05	120.30
25	BA	479	A	N7-C8-N9	-6.87	110.36	113.80
25	BA	692	C	N3-C4-C5	6.87	124.65	121.90
25	BA	1121	C	N1-C2-O2	-6.87	114.78	118.90
25	BA	1199	U	N3-C4-C5	6.87	118.72	114.60
26	BB	102	A	N1-C6-N6	-6.87	114.48	118.60
25	DA	71	A	N1-C6-N6	6.87	122.72	118.60
25	BA	437	G	C5-N7-C8	-6.87	100.86	104.30
25	BA	1321	A	N1-C6-N6	6.87	122.72	118.60
1	CA	1267	C	C6-N1-C2	-6.87	117.55	120.30
25	BA	2551	C	N1-C2-O2	-6.87	114.78	118.90
1	CA	1260	C	C6-N1-C2	-6.87	117.55	120.30
1	AA	1484	C	C6-N1-C2	6.87	123.05	120.30
25	BA	23	G	C5-C6-N1	-6.87	108.06	111.50
1	AA	791	G	C5-C6-N1	-6.87	108.07	111.50
25	BA	2729	G	C8-N9-C4	6.87	109.15	106.40
25	BA	532	A	C5-C6-N1	6.86	121.13	117.70
25	BA	1792	G	C6-C5-N7	6.86	134.52	130.40
25	DA	2039	C	C6-N1-C2	-6.86	117.56	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	34	C	C6-N1-C2	-6.86	117.56	120.30
1	CA	1205	U	C6-N1-C2	-6.86	116.88	121.00
25	DA	932	G	N1-C6-O6	-6.86	115.78	119.90
25	BA	123	G	N1-C6-O6	6.86	124.02	119.90
25	BA	955	C	N1-C2-O2	-6.86	114.78	118.90
1	CA	976	G	N3-C4-C5	-6.86	125.17	128.60
25	DA	1653	G	N3-C4-C5	-6.86	125.17	128.60
26	DB	70	C	C6-N1-C2	-6.86	117.56	120.30
1	AA	1149	C	C5-C6-N1	6.86	124.43	121.00
25	BA	952	G	C6-C5-N7	-6.86	126.29	130.40
25	BA	529	A	N1-C6-N6	6.85	122.71	118.60
25	BA	930	U	C5-C4-O4	-6.85	121.79	125.90
25	BA	1721	G	C5-N7-C8	-6.85	100.87	104.30
25	BA	1970	A	C5-C6-N6	-6.85	118.22	123.70
25	DA	1845	G	N3-C2-N2	-6.85	115.10	119.90
25	BA	474	G	C5-N7-C8	-6.85	100.87	104.30
25	BA	949	C	N1-C2-O2	-6.85	114.79	118.90
25	BA	2459	A	C8-N9-C4	-6.85	103.06	105.80
25	BA	139(A)	G	N1-C6-O6	6.85	124.01	119.90
25	BA	775	G	C5-C6-N1	6.85	114.92	111.50
25	BA	1662	C	C2-N1-C1'	6.85	126.33	118.80
25	BA	1820	U	C5-C6-N1	-6.85	119.28	122.70
25	BA	2226	C	C5-C6-N1	-6.85	117.58	121.00
26	BB	85	G	C5-C6-O6	-6.85	124.49	128.60
25	BA	1406	U	N3-C4-C5	6.85	118.71	114.60
25	BA	2070	G	C6-C5-N7	-6.85	126.29	130.40
25	BA	2486	G	N3-C4-N9	6.85	130.11	126.00
1	CA	851	G	C4-N9-C1'	6.85	135.40	126.50
25	BA	600	G	C2-N3-C4	-6.84	108.48	111.90
25	BA	1966	A	N9-C4-C5	-6.84	103.06	105.80
1	CA	1279	A	C4-N9-C1'	6.84	138.62	126.30
25	BA	2503	A	C4-C5-N7	6.84	114.12	110.70
1	CA	354	G	C6-C5-N7	-6.84	126.30	130.40
25	DA	391	G	C4-N9-C1'	6.84	135.39	126.50
25	BA	800	A	C6-N1-C2	-6.84	114.50	118.60
1	AA	299	G	C5-C6-O6	6.84	132.70	128.60
25	BA	525	U	N1-C2-O2	-6.84	118.01	122.80
25	BA	2091	U	C6-N1-C2	-6.84	116.90	121.00
1	CA	908	A	C8-N9-C4	6.84	108.53	105.80
25	DA	265	A	C5-C6-N1	-6.84	114.28	117.70
25	BA	461	C	C4-C5-C6	6.83	120.82	117.40
25	BA	933	A	N3-C4-C5	6.83	131.58	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1482	G	N3-C4-C5	-6.83	125.18	128.60
25	BA	796	C	C5-C6-N1	-6.83	117.58	121.00
25	BA	1497	U	N1-C2-N3	6.83	119.00	114.90
25	BA	1897	G	C6-C5-N7	-6.83	126.30	130.40
25	BA	2828	C	C5-C6-N1	-6.83	117.58	121.00
25	DA	1026	U	C2-N1-C1'	6.83	125.90	117.70
25	DA	2007	C	C6-N1-C2	6.83	123.03	120.30
25	DA	2340	G	N3-C4-C5	6.83	132.02	128.60
25	DA	2689	U	C2-N3-C4	-6.83	122.90	127.00
1	AA	554	C	C5-C6-N1	6.83	124.42	121.00
1	AA	1507	A	N1-C6-N6	-6.83	114.50	118.60
25	BA	2550	G	N1-C6-O6	6.83	124.00	119.90
25	DA	761	A	C4-C5-C6	6.83	120.42	117.00
25	DA	1964	G	N3-C4-N9	6.83	130.10	126.00
25	BA	1231	G	C2-N3-C4	-6.83	108.48	111.90
25	BA	1532	C	N1-C2-O2	6.83	123.00	118.90
1	CA	513	C	C2-N1-C1'	6.83	126.31	118.80
1	CA	1281	U	C5-C6-N1	6.83	126.11	122.70
25	DA	1791	A	C2-N3-C4	6.83	114.01	110.60
25	BA	990	A	C8-N9-C4	-6.83	103.07	105.80
25	BA	2250	G	C8-N9-C4	-6.83	103.67	106.40
25	BA	2775	A	C8-N9-C4	6.83	108.53	105.80
25	DA	1963	U	C2-N1-C1'	6.83	125.89	117.70
25	BA	2070	G	C2-N3-C4	-6.83	108.49	111.90
1	CA	1129	C	C6-N1-C2	-6.83	117.57	120.30
25	DA	1962	C	N1-C2-O2	-6.83	114.81	118.90
25	BA	2517	C	C6-N1-C2	6.82	123.03	120.30
25	BA	2543	G	N1-C6-O6	-6.82	115.81	119.90
1	CA	691	G	C8-N9-C4	6.82	109.13	106.40
25	DA	530	G	N7-C8-N9	6.82	116.51	113.10
1	AA	1531	A	C8-N9-C4	-6.82	103.07	105.80
25	BA	259	G	C5-C6-N1	-6.82	108.09	111.50
25	BA	2291	U	N3-C4-C5	-6.82	110.51	114.60
25	BA	2503	A	C5-C6-N1	6.82	121.11	117.70
25	DA	1698	A	C5-C6-N1	-6.82	114.29	117.70
25	BA	1222	C	N1-C2-O2	-6.82	114.81	118.90
25	BA	2603	G	C5-C6-O6	-6.82	124.51	128.60
26	BB	82	G	C8-N9-C4	6.82	109.13	106.40
1	AA	767	A	N1-C6-N6	-6.82	114.51	118.60
25	BA	646	A	N1-C6-N6	6.82	122.69	118.60
25	BA	975	C	C2-N3-C4	-6.82	116.49	119.90
25	BA	1685	C	C6-N1-C2	-6.82	117.57	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BU	12	ARG	NE-CZ-NH1	6.81	123.71	120.30
25	DA	1552	G	N1-C6-O6	-6.81	115.81	119.90
25	BA	216	A	C5-C6-N6	6.81	129.15	123.70
25	BA	513	A	N7-C8-N9	6.81	117.21	113.80
25	BA	530	G	N1-C2-N3	6.81	127.99	123.90
25	BA	448	U	N1-C2-N3	6.81	118.99	114.90
25	BA	2024	G	C8-N9-C1'	-6.81	118.14	127.00
25	DA	972	G	N9-C4-C5	6.81	108.12	105.40
25	BA	1709	U	C5-C6-N1	-6.81	119.30	122.70
25	BA	2053	G	N1-C6-O6	6.81	123.98	119.90
25	DA	1703	G	C6-C5-N7	-6.81	126.31	130.40
25	BA	44	G	C5-C6-N1	6.81	114.90	111.50
25	BA	74	A	N9-C4-C5	6.81	108.52	105.80
41	DV	35	LEU	CA-CB-CG	6.81	130.96	115.30
25	BA	245	G	N9-C4-C5	-6.80	102.68	105.40
25	BA	2703	C	N3-C2-O2	-6.80	117.14	121.90
25	DA	1294	U	N1-C2-N3	6.80	118.98	114.90
25	BA	175	G	N7-C8-N9	-6.80	109.70	113.10
1	AA	1429	C	N1-C2-O2	-6.80	114.82	118.90
25	BA	234	C	C6-N1-C2	-6.80	117.58	120.30
25	BA	2024	G	C8-N9-C4	6.80	109.12	106.40
25	BA	1154	G	C6-C5-N7	-6.80	126.32	130.40
25	DA	1814	G	C8-N9-C4	-6.80	103.68	106.40
23	AV	9	G	C8-N9-C1'	6.80	135.84	127.00
25	BA	524	U	N3-C2-O2	-6.80	117.44	122.20
25	BA	1170	G	C5-N7-C8	-6.80	100.90	104.30
25	BA	1669	A	N1-C2-N3	6.80	132.70	129.30
25	BA	2565	A	C8-N9-C4	6.80	108.52	105.80
25	BA	1802	A	C6-N1-C2	-6.79	114.52	118.60
1	AA	1406	U	C5-C6-N1	-6.79	119.30	122.70
25	BA	90	U	C2-N3-C4	6.79	131.08	127.00
25	DA	1377	G	N3-C4-C5	-6.79	125.20	128.60
25	DA	2618	G	C5-C6-O6	6.79	132.67	128.60
1	AA	872	A	N1-C6-N6	6.79	122.67	118.60
25	BA	636	G	N3-C2-N2	-6.79	115.15	119.90
25	BA	207	A	N1-C6-N6	6.79	122.67	118.60
25	BA	1047	G	N3-C4-N9	6.78	130.07	126.00
25	BA	1792	G	C8-N9-C1'	6.78	135.82	127.00
25	BA	681	G	N1-C2-N2	-6.78	110.10	116.20
25	DA	461	C	N3-C4-C5	-6.78	119.19	121.90
25	BA	2352	A	N9-C4-C5	-6.78	103.09	105.80
25	DA	429	A	N1-C6-N6	6.78	122.67	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2848	G	C5-C6-O6	6.78	132.67	128.60
25	BA	2374	C	C5-C4-N4	-6.78	115.45	120.20
1	AA	93	G	N3-C4-N9	6.78	130.07	126.00
25	BA	745	G	C6-C5-N7	-6.78	126.33	130.40
25	BA	2231	C	N1-C2-O2	-6.78	114.83	118.90
25	BA	1333	C	C2-N3-C4	-6.78	116.51	119.90
1	AA	652	U	N3-C2-O2	6.77	126.94	122.20
25	BA	645	C	N1-C2-N3	-6.77	114.46	119.20
25	BA	2764	A	N9-C4-C5	6.77	108.51	105.80
25	DA	51	G	N1-C6-O6	-6.77	115.84	119.90
25	BA	940	G	C5-C6-O6	-6.77	124.54	128.60
25	BA	841	A	N1-C6-N6	6.76	122.66	118.60
25	BA	1332	G	N1-C2-N2	-6.76	110.11	116.20
25	DA	1377	G	C8-N9-C1'	-6.76	118.20	127.00
25	BA	1389	G	N7-C8-N9	-6.76	109.72	113.10
25	BA	1427	A	C6-N1-C2	-6.76	114.54	118.60
25	BA	1929	G	C5-C6-O6	6.76	132.66	128.60
25	DA	2080	G	C8-N9-C4	-6.76	103.69	106.40
25	DA	2103	C	N3-C4-N4	-6.76	113.27	118.00
25	BA	1572	A	C8-N9-C4	6.76	108.50	105.80
25	BA	1989	G	N1-C2-N2	-6.76	110.12	116.20
25	BA	2371	G	C2-N3-C4	6.76	115.28	111.90
1	AA	243	A	C8-N9-C4	-6.76	103.10	105.80
1	AA	521	G	C6-N1-C2	-6.76	121.05	125.10
1	AA	754	C	C6-N1-C2	-6.76	117.60	120.30
25	BA	1200	C	C2-N3-C4	-6.76	116.52	119.90
25	BA	1831	G	N3-C2-N2	-6.76	115.17	119.90
1	CA	904	C	N3-C4-C5	6.75	124.60	121.90
25	DA	530	G	C5-N7-C8	-6.75	100.92	104.30
25	DA	668	G	N1-C2-N3	6.75	127.95	123.90
25	DA	2628	C	C5-C6-N1	-6.75	117.62	121.00
25	BA	949	C	C6-N1-C2	6.75	123.00	120.30
25	BA	1708	C	C5-C4-N4	-6.75	115.47	120.20
1	AA	1530	G	C8-N9-C4	6.75	109.10	106.40
1	AA	792	A	C2-N3-C4	-6.75	107.23	110.60
25	BA	1569	A	N9-C4-C5	6.75	108.50	105.80
25	BA	2260	C	C2-N3-C4	-6.75	116.53	119.90
25	BA	1156	A	C4-C5-N7	6.75	114.07	110.70
54	B8	34	TRP	N-CA-C	-6.75	92.78	111.00
25	BA	727	A	N1-C6-N6	6.75	122.65	118.60
25	BA	2070	G	N9-C4-C5	-6.75	102.70	105.40
25	DA	2599	G	C5-C6-O6	6.75	132.65	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1204	A	C5-C6-N1	-6.74	114.33	117.70
25	BA	1587	A	C5-C6-N1	6.74	121.07	117.70
25	BA	2783	G	C4-C5-C6	6.74	122.85	118.80
1	CA	629	G	N3-C4-N9	-6.74	121.95	126.00
25	DA	1332	G	C5-C6-N1	-6.74	108.13	111.50
25	DA	2089	U	N1-C2-O2	-6.74	118.08	122.80
25	BA	117	G	C8-N9-C1'	-6.74	118.24	127.00
25	BA	2578	G	N1-C6-O6	-6.74	115.86	119.90
25	DA	298	G	C4-C5-N7	6.74	113.50	110.80
25	BA	272	G	N3-C4-N9	6.74	130.04	126.00
25	BA	1199	U	N3-C4-O4	-6.74	114.68	119.40
25	BA	2636	U	C2-N3-C4	-6.74	122.96	127.00
25	BA	780	G	C4-N9-C1'	6.74	135.26	126.50
25	BA	2542	A	C2-N3-C4	-6.74	107.23	110.60
26	BB	86	G	C8-N9-C4	6.74	109.09	106.40
1	CA	622	A	C2-N3-C4	-6.74	107.23	110.60
23	CV	76	A	C4-C5-C6	-6.74	113.63	117.00
25	DA	2519	U	C6-N1-C2	6.74	125.04	121.00
25	BA	2807	G	C8-N9-C4	-6.73	103.71	106.40
1	AA	576	G	C8-N9-C1'	-6.73	118.25	127.00
25	BA	1701	A	C4-C5-C6	6.73	120.36	117.00
25	BA	1948	G	N9-C4-C5	6.73	108.09	105.40
25	BA	2232	U	C5-C4-O4	6.73	129.94	125.90
25	BA	2646	C	C5-C4-N4	-6.73	115.49	120.20
25	BA	2814	C	N1-C2-O2	-6.73	114.86	118.90
25	BA	730	C	C4-C5-C6	-6.73	114.04	117.40
25	BA	1194	A	C5-C6-N1	6.73	121.06	117.70
25	BA	1607	C	C6-N1-C1'	-6.73	112.73	120.80
25	DA	22	C	N3-C4-C5	6.73	124.59	121.90
25	DA	1958	C	C6-N1-C2	6.73	122.99	120.30
25	BA	379	G	N3-C2-N2	-6.72	115.19	119.90
1	CA	976	G	N3-C4-N9	6.72	130.03	126.00
25	BA	486	C	N1-C2-O2	-6.72	114.87	118.90
25	BA	1695	G	N1-C2-N2	-6.72	110.15	116.20
25	BA	2381	C	C2-N3-C4	-6.72	116.54	119.90
25	BA	2426	A	N9-C4-C5	6.72	108.49	105.80
25	DA	445	C	N1-C2-O2	-6.72	114.87	118.90
25	BA	90	U	N1-C2-N3	-6.72	110.87	114.90
25	BA	2589	A	C8-N9-C4	6.72	108.49	105.80
1	CA	421	U	N1-C2-O2	6.72	127.50	122.80
25	BA	1950	G	C5-C6-O6	-6.72	124.57	128.60
25	BA	759	G	N1-C6-O6	6.71	123.93	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1695	G	N1-C6-O6	6.71	123.93	119.90
25	BA	784	A	C5-C6-N6	6.71	129.07	123.70
26	BB	77	U	N3-C4-C5	6.71	118.63	114.60
25	DA	1625	C	N3-C2-O2	-6.71	117.20	121.90
25	BA	2607	G	N3-C4-N9	6.71	130.03	126.00
26	BB	113	G	C6-C5-N7	-6.71	126.37	130.40
25	BA	1678	G	N9-C4-C5	6.71	108.08	105.40
1	CA	100	C	C6-N1-C2	-6.71	117.62	120.30
25	DA	2023	G	C8-N9-C4	-6.71	103.72	106.40
25	DA	733	G	N9-C4-C5	-6.71	102.72	105.40
25	DA	2083	G	C2-N3-C4	-6.71	108.55	111.90
1	AA	1227	A	N3-C4-C5	6.71	131.50	126.80
25	BA	1030	G	C2-N3-C4	-6.71	108.55	111.90
1	CA	832	C	C2-N1-C1'	6.71	126.17	118.80
25	DA	2430	A	C4-C5-C6	6.71	120.35	117.00
25	DA	2724	C	N3-C4-N4	-6.71	113.31	118.00
25	BA	763	G	C4-C5-C6	6.70	122.82	118.80
25	BA	2441	C	N1-C2-O2	6.70	122.92	118.90
25	DA	13	A	C8-N9-C4	-6.70	103.12	105.80
25	BA	1831	G	C8-N9-C4	-6.70	103.72	106.40
25	DA	1624	G	C5-C6-O6	-6.70	124.58	128.60
1	AA	754	C	N3-C2-O2	-6.70	117.21	121.90
25	BA	139(A)	G	C8-N9-C1'	-6.70	118.29	127.00
25	BA	975(A)	G	C4-C5-N7	6.70	113.48	110.80
25	BA	2377	A	N3-C4-C5	6.70	131.49	126.80
1	AA	576	G	C4-C5-C6	6.70	122.82	118.80
25	BA	1830	C	C4-C5-C6	-6.70	114.05	117.40
25	DA	204	A	C8-N9-C4	-6.70	103.12	105.80
25	BA	2447	G	C8-N9-C4	6.69	109.08	106.40
25	BA	1292	U	C5-C6-N1	6.69	126.05	122.70
25	DA	962	G	N1-C6-O6	6.69	123.92	119.90
25	DA	1992	G	N3-C4-C5	-6.69	125.25	128.60
25	BA	1992	G	N1-C6-O6	-6.69	115.89	119.90
25	BA	2011	U	C4-C5-C6	6.69	123.72	119.70
25	BA	2330	G	C2-N3-C4	-6.69	108.56	111.90
25	BA	2581	G	N9-C4-C5	6.69	108.08	105.40
1	AA	1530	G	C8-N9-C1'	6.69	135.69	127.00
25	BA	146	G	N1-C6-O6	6.68	123.91	119.90
25	BA	2762	G	C2-N3-C4	-6.68	108.56	111.90
25	BA	2467	C	N3-C4-C5	6.68	124.57	121.90
1	CA	266	G	C8-N9-C4	-6.68	103.73	106.40
25	DA	2263	C	C6-N1-C2	6.68	122.97	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2791	C	C5-C6-N1	6.68	124.34	121.00
1	AA	1519	A	N1-C2-N3	6.68	132.64	129.30
25	BA	2499	C	C6-N1-C2	-6.68	117.63	120.30
25	BA	1706	U	N1-C2-O2	6.68	127.47	122.80
1	AA	1400	C	N1-C2-O2	6.68	122.91	118.90
25	BA	266	G	C5-C6-O6	-6.68	124.59	128.60
25	DA	833	U	N3-C2-O2	6.68	126.87	122.20
25	DA	2396	G	C6-C5-N7	-6.67	126.39	130.40
25	BA	2638	G	C2-N3-C4	6.67	115.24	111.90
25	BA	522	G	N9-C4-C5	-6.67	102.73	105.40
44	BY	11	ASP	CB-CG-OD1	-6.67	112.30	118.30
25	BA	1288	U	N3-C2-O2	-6.67	117.53	122.20
25	BA	1721	G	N1-C2-N2	6.67	122.20	116.20
25	BA	220	G	N9-C4-C5	-6.67	102.73	105.40
25	BA	246	C	C6-N1-C2	6.67	122.97	120.30
25	BA	451	C	C6-N1-C2	6.67	122.97	120.30
26	BB	53	A	C5-N7-C8	-6.67	100.56	103.90
25	DA	2565	A	C8-N9-C4	6.67	108.47	105.80
25	BA	258	G	C8-N9-C4	-6.67	103.73	106.40
25	BA	1125	G	N3-C4-N9	-6.67	122.00	126.00
1	CA	1323	G	C8-N9-C4	-6.67	103.73	106.40
25	DA	1369	G	C6-N1-C2	-6.67	121.10	125.10
25	DA	2341	G	C5-C6-O6	-6.67	124.60	128.60
26	DB	115	G	N7-C8-N9	-6.67	109.77	113.10
25	DA	2224	G	C6-C5-N7	-6.67	126.40	130.40
25	BA	2069	G	C4-C5-N7	-6.66	108.14	110.80
25	BA	2887	U	C6-N1-C2	6.66	125.00	121.00
25	DA	1607	C	N1-C2-N3	-6.66	114.54	119.20
25	BA	1675	C	N3-C4-N4	6.66	122.66	118.00
25	BA	2499	C	C5-C6-N1	6.66	124.33	121.00
1	CA	916	G	C8-N9-C4	-6.66	103.73	106.40
25	BA	1650	G	C2-N3-C4	-6.66	108.57	111.90
1	AA	492	G	C8-N9-C4	-6.66	103.74	106.40
25	BA	1034	G	C5-C6-O6	-6.66	124.61	128.60
25	BA	1967	C	C2-N3-C4	-6.66	116.57	119.90
25	BA	2386	C	C5-C6-N1	-6.66	117.67	121.00
25	BA	761	A	C5-C6-N6	-6.66	118.38	123.70
25	BA	677	A	C4-C5-C6	6.66	120.33	117.00
25	BA	2584	U	N1-C2-O2	-6.66	118.14	122.80
25	BA	2745	C	C6-N1-C2	-6.66	117.64	120.30
25	BA	139	G	N3-C4-C5	-6.65	125.27	128.60
25	BA	179	G	C4-N9-C1'	6.65	135.15	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	14	A	C8-N9-C4	-6.65	103.14	105.80
25	DA	2512	C	C2-N1-C1'	-6.65	111.48	118.80
25	BA	460	A	C8-N9-C4	6.65	108.46	105.80
25	BA	543	C	N1-C2-O2	-6.65	114.91	118.90
25	BA	1649	G	C5-C6-O6	-6.65	124.61	128.60
25	BA	2063	C	C6-N1-C2	6.65	122.96	120.30
25	BA	1278	A	C6-N1-C2	-6.65	114.61	118.60
26	BB	104	U	N3-C4-C5	6.65	118.59	114.60
25	DA	2235	G	C6-C5-N7	-6.65	126.41	130.40
1	AA	511	C	C5-C6-N1	-6.65	117.68	121.00
25	BA	1386	C	C5-C6-N1	-6.65	117.68	121.00
23	CV	67	C	C6-N1-C2	-6.65	117.64	120.30
1	AA	882	C	N3-C4-C5	-6.65	119.24	121.90
25	BA	34	C	C5-C6-N1	6.65	124.32	121.00
25	BA	1997	G	N9-C4-C5	6.65	108.06	105.40
25	BA	133	C	C4-C5-C6	6.64	120.72	117.40
25	BA	2237	G	N9-C4-C5	-6.64	102.74	105.40
1	AA	1324	A	N1-C2-N3	6.64	132.62	129.30
25	BA	126	A	C5-C6-N6	6.64	129.01	123.70
25	BA	787	U	N1-C2-N3	6.64	118.89	114.90
25	BA	1026	U	N3-C2-O2	-6.64	117.55	122.20
25	BA	1963	U	C5-C6-N1	6.64	126.02	122.70
1	CA	1378	C	N3-C4-C5	-6.64	119.24	121.90
25	DA	2430	A	C6-C5-N7	-6.64	127.65	132.30
25	BA	815	C	C2-N3-C4	-6.64	116.58	119.90
1	CA	848	C	C6-N1-C2	-6.64	117.64	120.30
1	AA	7	G	N3-C4-C5	6.64	131.92	128.60
25	BA	955	C	C2-N3-C4	-6.64	116.58	119.90
25	DA	589	C	N1-C2-O2	-6.64	114.92	118.90
25	DA	2680	C	N3-C4-N4	-6.64	113.35	118.00
25	DA	2457	U	C6-N1-C2	-6.64	117.02	121.00
25	BA	1137	G	C5-C6-O6	-6.64	124.62	128.60
25	BA	2237	G	C8-N9-C4	6.64	109.05	106.40
25	BA	676	A	C1'-O4'-C4'	-6.63	104.59	109.90
25	DA	1531	C	C2-N1-C1'	6.63	126.10	118.80
25	BA	2884	U	C5-C4-O4	6.63	129.88	125.90
25	DA	2253	G	C4-C5-N7	6.63	113.45	110.80
23	AV	76	A	N1-C2-N3	-6.63	125.98	129.30
1	CA	442	C	C2-N1-C1'	6.63	126.09	118.80
1	AA	317	G	N3-C2-N2	-6.63	115.26	119.90
25	BA	2860	A	N7-C8-N9	-6.63	110.49	113.80
4	CD	12	CYS	CA-CB-SG	6.63	125.93	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2200	C	C2-N1-C1'	6.63	126.09	118.80
1	AA	1312	G	N9-C4-C5	6.63	108.05	105.40
25	BA	614	U	N3-C4-C5	-6.63	110.62	114.60
25	BA	2584	U	N3-C2-O2	6.63	126.84	122.20
25	BA	566	U	C6-N1-C2	6.62	124.97	121.00
25	BA	1219	G	N3-C4-N9	-6.62	122.03	126.00
25	BA	1515	G	N9-C4-C5	-6.62	102.75	105.40
25	BA	2852	G	C6-C5-N7	6.62	134.38	130.40
1	CA	129(A)	G	C8-N9-C4	-6.62	103.75	106.40
1	AA	1126	U	N3-C4-O4	6.62	124.04	119.40
25	BA	627	A	N7-C8-N9	-6.62	110.49	113.80
1	CA	470	C	N1-C2-O2	6.62	122.87	118.90
25	DA	450	G	N9-C4-C5	6.62	108.05	105.40
25	DA	1259	G	C8-N9-C4	6.62	109.05	106.40
25	DA	2387	U	C2-N3-C4	-6.62	123.03	127.00
25	BA	1223	G	N1-C6-O6	-6.62	115.93	119.90
25	BA	2486	G	C5-C6-N1	6.62	114.81	111.50
26	BB	99	G	C6-C5-N7	-6.62	126.43	130.40
25	DA	1614	A	C5-C6-N6	6.62	129.00	123.70
1	AA	814	A	C2-N3-C4	-6.62	107.29	110.60
25	BA	461	C	N1-C2-N3	6.62	123.83	119.20
25	BA	1236	G	N9-C4-C5	-6.62	102.75	105.40
25	BA	1992	G	P-O3'-C3'	6.62	127.64	119.70
1	AA	359	U	C6-N1-C2	-6.62	117.03	121.00
25	BA	950	G	C8-N9-C4	6.62	109.05	106.40
1	CA	308	C	C6-N1-C2	6.62	122.95	120.30
25	DA	25	U	N1-C2-O2	-6.62	118.17	122.80
25	BA	1596	A	C5-C6-N1	6.61	121.01	117.70
25	BA	1695	G	C6-C5-N7	-6.61	126.43	130.40
25	BA	1829	A	C8-N9-C4	6.61	108.44	105.80
25	BA	2827	C	N1-C2-O2	-6.61	114.93	118.90
1	CA	266	G	C6-C5-N7	-6.61	126.43	130.40
25	BA	452	G	N1-C6-O6	-6.61	115.93	119.90
25	DA	2607	G	N9-C4-C5	-6.61	102.75	105.40
1	AA	165	C	C6-N1-C2	-6.61	117.66	120.30
1	AA	191	G	C8-N9-C4	-6.61	103.76	106.40
25	BA	775	G	C6-N1-C2	-6.61	121.13	125.10
25	BA	1198	U	C5-C4-O4	6.61	129.87	125.90
25	BA	2051	A	C4-C5-C6	6.61	120.31	117.00
1	CA	685	G	N3-C4-C5	6.61	131.91	128.60
25	BA	2019	A	C2-N3-C4	-6.61	107.30	110.60
1	CA	1278	U	C5-C6-N1	6.61	126.00	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	620	G	C2-N3-C4	6.61	115.20	111.90
25	BA	1259	G	C6-C5-N7	-6.61	126.44	130.40
23	CV	22	G	C8-N9-C4	-6.61	103.76	106.40
25	DA	1906	G	N1-C6-O6	6.61	123.86	119.90
1	CA	413	G	N3-C4-N9	6.60	129.96	126.00
1	AA	19	C	C6-N1-C2	-6.60	117.66	120.30
26	BB	19	G	C6-C5-N7	-6.60	126.44	130.40
23	AV	74	C	N1-C2-O2	6.60	122.86	118.90
25	BA	2286	A	C8-N9-C1'	-6.60	115.82	127.70
1	CA	839	U	C2-N1-C1'	6.60	125.62	117.70
1	CA	1126	U	C5-C6-N1	6.60	126.00	122.70
1	CA	1474	G	C8-N9-C4	6.60	109.04	106.40
23	CV	76	A	N7-C8-N9	-6.60	110.50	113.80
25	DA	213	A	C5-N7-C8	-6.60	100.60	103.90
25	DA	1841	U	N3-C2-O2	-6.60	117.58	122.20
25	BA	1496	A	C8-N9-C4	-6.60	103.16	105.80
25	BA	2709	G	C8-N9-C4	-6.60	103.76	106.40
25	DA	778	G	N1-C2-N3	6.60	127.86	123.90
25	DA	2587	A	C4-C5-C6	6.60	120.30	117.00
25	BA	780	G	C6-C5-N7	-6.60	126.44	130.40
25	DA	1663	C	C6-N1-C2	6.60	122.94	120.30
25	DA	2476	A	N1-C6-N6	-6.60	114.64	118.60
25	BA	192	C	C5-C6-N1	-6.60	117.70	121.00
25	BA	2238	G	C2-N3-C4	6.60	115.20	111.90
25	DA	2502	G	C4-C5-N7	6.60	113.44	110.80
25	BA	53	A	C5-C6-N6	-6.59	118.42	123.70
25	DA	1492	G	N1-C6-O6	6.59	123.86	119.90
1	AA	1524	C	C5-C6-N1	-6.59	117.70	121.00
25	BA	1985	G	N1-C2-N3	6.59	127.86	123.90
25	BA	1792	G	N1-C6-O6	-6.59	115.95	119.90
25	BA	2500	U	C5-C6-N1	-6.59	119.41	122.70
25	DA	1529	G	C8-N9-C4	6.59	109.03	106.40
1	AA	1108	G	N3-C4-C5	-6.59	125.31	128.60
25	BA	2243	U	C5-C4-O4	6.59	129.85	125.90
25	BA	2440	C	C6-N1-C2	6.59	122.94	120.30
25	DA	1807	G	N9-C4-C5	-6.59	102.77	105.40
1	AA	343	U	C5-C6-N1	-6.59	119.41	122.70
25	BA	509	C	N1-C2-O2	-6.59	114.95	118.90
25	BA	646	A	C5-C6-N1	-6.59	114.41	117.70
25	BA	1210	A	N3-C4-N9	-6.59	122.13	127.40
25	BA	1942	C	C6-N1-C2	-6.59	117.67	120.30
25	DA	385	C	N1-C2-O2	6.59	122.85	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1371	G	C5-C6-N1	-6.58	108.21	111.50
25	BA	2363	C	C5-C6-N1	-6.58	117.71	121.00
25	DA	489	G	C4-C5-N7	-6.58	108.17	110.80
25	BA	652(B)	A	C2-N3-C4	6.58	113.89	110.60
25	BA	686	G	C4-C5-N7	6.58	113.43	110.80
1	CA	1356	G	C6-N1-C2	6.58	129.05	125.10
1	AA	529	G	C6-C5-N7	-6.58	126.45	130.40
25	BA	1709	U	N1-C2-N3	6.58	118.85	114.90
25	DA	450	G	C5-N7-C8	6.58	107.59	104.30
25	DA	1974	C	C6-N1-C2	6.58	122.93	120.30
25	BA	122	G	C4-C5-C6	6.57	122.74	118.80
25	BA	2709	G	N9-C4-C5	6.57	108.03	105.40
25	DA	1908	C	C6-N1-C2	-6.57	117.67	120.30
25	BA	176	G	C6-C5-N7	-6.57	126.46	130.40
25	BA	2509	G	C8-N9-C4	6.57	109.03	106.40
25	DA	1832	C	C2-N1-C1'	-6.57	111.57	118.80
25	DA	2440	C	C5-C4-N4	6.57	124.80	120.20
26	DB	113	G	N1-C6-O6	6.57	123.84	119.90
1	AA	1495	U	C2-N3-C4	6.57	130.94	127.00
25	BA	1344	G	N3-C2-N2	-6.57	115.30	119.90
25	BA	1199	U	C2-N3-C4	-6.57	123.06	127.00
25	BA	1769	G	N1-C6-O6	6.57	123.84	119.90
1	CA	129(A)	G	N9-C4-C5	6.57	108.03	105.40
25	BA	1574	C	C6-N1-C2	6.56	122.93	120.30
25	DA	540	C	N3-C2-O2	-6.56	117.31	121.90
25	BA	1500	G	C5-C6-O6	-6.56	124.66	128.60
25	BA	2717	G	C6-C5-N7	-6.56	126.46	130.40
26	BB	99	G	N3-C4-N9	6.56	129.94	126.00
1	CA	1484	C	C2-N1-C1'	-6.56	111.58	118.80
25	DA	2512	C	N3-C2-O2	6.56	126.49	121.90
26	DB	30	C	C6-N1-C2	-6.56	117.67	120.30
1	AA	1401	G	C5-N7-C8	-6.56	101.02	104.30
25	DA	689	A	C2-N3-C4	6.56	113.88	110.60
25	BA	176	G	C2-N3-C4	-6.56	108.62	111.90
1	CA	204	U	C2-N1-C1'	6.56	125.57	117.70
1	CA	858	G	C4-N9-C1'	6.56	135.03	126.50
25	BA	1586	A	N1-C6-N6	6.56	122.53	118.60
25	BA	2697	G	C6-C5-N7	-6.55	126.47	130.40
25	DA	504	U	C6-N1-C1'	-6.55	112.02	121.20
25	DA	1703	G	C4-C5-N7	6.55	113.42	110.80
25	DA	2714	G	C5-C6-O6	-6.55	124.67	128.60
25	BA	2473	U	C2-N1-C1'	6.55	125.56	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1323	G	C6-C5-N7	-6.55	126.47	130.40
25	BA	1031	G	C6-N1-C2	-6.55	121.17	125.10
1	CA	887	G	C5-C6-O6	-6.55	124.67	128.60
25	DA	754	C	C5-C4-N4	-6.55	115.61	120.20
25	BA	1338	G	C6-C5-N7	-6.55	126.47	130.40
25	BA	1443	G	C6-C5-N7	-6.55	126.47	130.40
25	BA	1506	C	N1-C2-O2	6.55	122.83	118.90
25	BA	1937	A	C2-N3-C4	-6.55	107.33	110.60
26	BB	89	G	N7-C8-N9	6.55	116.38	113.10
1	CA	1373	G	C6-C5-N7	-6.55	126.47	130.40
25	BA	1527	G	N9-C4-C5	6.55	108.02	105.40
25	DA	2007	C	N1-C2-O2	-6.54	114.97	118.90
25	BA	122	G	N1-C2-N3	6.54	127.83	123.90
25	BA	589	C	N3-C4-N4	-6.54	113.42	118.00
25	BA	814	C	C6-N1-C2	6.54	122.92	120.30
25	BA	1193	G	N1-C2-N2	-6.54	110.31	116.20
25	BA	2050	C	C4-C5-C6	6.54	120.67	117.40
1	AA	893	C	C6-N1-C2	6.54	122.92	120.30
25	BA	2356	C	N3-C2-O2	-6.54	117.32	121.90
25	DA	1927	A	C8-N9-C4	-6.54	103.18	105.80
25	BA	729	G	C8-N9-C4	-6.54	103.78	106.40
25	BA	1660	C	C6-N1-C2	-6.54	117.68	120.30
25	BA	99	U	N3-C2-O2	-6.54	117.62	122.20
25	BA	1343	G	C5-C6-N1	6.54	114.77	111.50
25	BA	1408	C	C2-N3-C4	-6.54	116.63	119.90
25	BA	2056	G	N1-C6-O6	6.54	123.82	119.90
1	CA	421	U	N3-C2-O2	-6.54	117.62	122.20
1	AA	839	U	C2-N1-C1'	6.54	125.54	117.70
25	BA	1792	G	C4-N9-C1'	-6.54	118.00	126.50
25	BA	613	G	C5-C6-O6	-6.54	124.68	128.60
25	BA	795	C	C2-N1-C1'	6.54	125.99	118.80
25	DA	945	A	C5-N7-C8	-6.54	100.63	103.90
25	DA	1142(A)	A	N1-C6-N6	6.54	122.52	118.60
25	BA	765	G	N1-C2-N2	6.53	122.08	116.20
25	DA	1650	G	C4-C5-N7	6.53	113.41	110.80
25	BA	475	U	C2-N1-C1'	6.53	125.54	117.70
25	DA	2723	C	C6-N1-C2	-6.53	117.69	120.30
25	BA	1342	A	C5-C6-N6	-6.53	118.48	123.70
1	CA	365	U	C5-C4-O4	6.53	129.82	125.90
25	DA	1367	A	C5-C6-N6	-6.53	118.47	123.70
25	DA	2595	G	C4-C5-N7	6.53	113.41	110.80
1	AA	1502	A	N7-C8-N9	6.53	117.06	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	746	A	N1-C6-N6	6.53	122.52	118.60
25	BA	750	A	C8-N9-C4	-6.53	103.19	105.80
25	BA	2073	C	C2-N1-C1'	-6.53	111.62	118.80
25	BA	457	A	C5-C6-N6	6.53	128.92	123.70
25	BA	975	C	N3-C4-C5	6.53	124.51	121.90
25	BA	1334	G	C8-N9-C1'	-6.53	118.52	127.00
25	BA	1970	A	C6-N1-C2	-6.53	114.69	118.60
25	BA	2187	G	C5-C6-O6	-6.53	124.68	128.60
41	BV	13	ARG	NE-CZ-NH1	-6.53	117.04	120.30
25	DA	271(Z)	C	C2-N1-C1'	6.53	125.98	118.80
25	DA	2054	A	C6-N1-C2	-6.53	114.69	118.60
25	BA	1843	C	N3-C4-C5	6.52	124.51	121.90
1	CA	1321	C	C5-C6-N1	6.52	124.26	121.00
1	CA	1363(A)	A	N9-C4-C5	6.52	108.41	105.80
1	AA	1064	G	N9-C4-C5	6.52	108.01	105.40
25	BA	198	C	C2-N3-C4	-6.52	116.64	119.90
25	BA	621	A	C8-N9-C4	-6.52	103.19	105.80
25	BA	632	A	C2-N3-C4	-6.52	107.34	110.60
25	BA	777	A	C6-N1-C2	-6.52	114.69	118.60
25	BA	2051	A	C6-N1-C2	-6.52	114.69	118.60
25	DA	2430	A	N1-C2-N3	6.52	132.56	129.30
25	DA	2023	G	C6-C5-N7	-6.52	126.49	130.40
1	AA	1524	C	N3-C4-C5	6.52	124.51	121.90
25	BA	1319	G	C8-N9-C4	-6.52	103.79	106.40
25	BA	1488	G	N7-C8-N9	6.52	116.36	113.10
1	AA	572	A	N1-C6-N6	-6.52	114.69	118.60
25	BA	1698	A	C4-C5-C6	6.52	120.26	117.00
25	DA	1638	C	N3-C4-C5	6.52	124.51	121.90
25	BA	1140	C	C6-N1-C2	-6.52	117.69	120.30
26	BB	64	C	C5-C6-N1	-6.52	117.74	121.00
25	DA	461	C	N3-C4-N4	6.51	122.56	118.00
25	DA	696	G	C8-N9-C4	6.51	109.01	106.40
25	BA	1399	C	C6-N1-C2	6.51	122.91	120.30
25	BA	1106	G	N3-C4-N9	6.51	129.91	126.00
25	BA	117	G	N1-C2-N2	-6.51	110.34	116.20
25	BA	686	G	C2-N3-C4	-6.51	108.64	111.90
25	BA	1426	G	N7-C8-N9	-6.51	109.85	113.10
25	BA	1661	G	C8-N9-C4	6.51	109.00	106.40
25	DA	1781	C	N3-C4-N4	-6.51	113.44	118.00
25	DA	932	G	N9-C4-C5	6.51	108.00	105.40
1	AA	1108	G	C4-C5-N7	-6.51	108.20	110.80
25	BA	418	G	C8-N9-C4	6.51	109.00	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	905	U	N3-C2-O2	-6.51	117.65	122.20
26	BB	64	C	N1-C2-O2	6.51	122.80	118.90
1	AA	595	G	C5-C6-O6	6.50	132.50	128.60
25	BA	820	A	N1-C2-N3	6.50	132.55	129.30
25	BA	1033	U	N3-C4-O4	-6.50	114.85	119.40
25	BA	2501	C	N1-C2-N3	6.50	123.75	119.20
25	BA	122	G	N7-C8-N9	-6.50	109.85	113.10
25	BA	1695	G	N3-C4-N9	6.50	129.90	126.00
25	BA	1769	G	C4-N9-C1'	6.50	134.95	126.50
25	BA	2063	C	N3-C4-N4	6.50	122.55	118.00
25	BA	2354	G	C6-N1-C2	-6.50	121.20	125.10
1	AA	347	G	N3-C4-C5	-6.50	125.35	128.60
25	DA	139(A)	G	N3-C4-N9	6.50	129.90	126.00
25	DA	184	C	C5-C4-N4	-6.50	115.65	120.20
25	DA	1805	U	N3-C2-O2	-6.50	117.65	122.20
1	AA	857	C	C4-C5-C6	6.50	120.65	117.40
25	BA	1668	A	N1-C6-N6	6.50	122.50	118.60
26	BB	116	G	C8-N9-C4	6.50	109.00	106.40
25	DA	141	A	C5-C6-N6	-6.50	118.50	123.70
25	DA	391	G	N1-C6-O6	6.50	123.80	119.90
1	AA	1526	G	C6-C5-N7	-6.50	126.50	130.40
1	CA	616	G	C4-N9-C1'	6.50	134.94	126.50
25	DA	271(M)	G	N3-C2-N2	6.50	124.45	119.90
1	CA	546	G	N3-C4-C5	-6.50	125.35	128.60
25	DA	203	C	C5-C6-N1	6.50	124.25	121.00
1	AA	575	G	N1-C6-O6	-6.49	116.00	119.90
1	AA	598	U	N3-C4-O4	6.49	123.94	119.40
1	AA	1442	G	N3-C4-C5	6.49	131.85	128.60
1	AA	1467	G	C5-C6-N1	-6.49	108.25	111.50
25	BA	515	A	C8-N9-C4	-6.49	103.20	105.80
25	BA	733	G	N3-C4-N9	6.49	129.90	126.00
25	BA	1325	G	N1-C6-O6	6.49	123.80	119.90
25	DA	776	G	C4-N9-C1'	6.49	134.94	126.50
25	BA	2038	G	C6-C5-N7	-6.49	126.50	130.40
25	DA	1038	C	C6-N1-C2	-6.49	117.70	120.30
25	BA	838	C	C4-C5-C6	6.49	120.64	117.40
25	BA	2252	G	C2-N3-C4	-6.49	108.65	111.90
25	BA	2548	G	N1-C2-N3	6.49	127.79	123.90
25	BA	2585	U	C4-C5-C6	-6.49	115.81	119.70
1	CA	960	U	C6-N1-C1'	-6.49	112.11	121.20
1	CA	963	G	C8-N9-C4	-6.49	103.80	106.40
25	DA	2724	C	C5-C6-N1	-6.49	117.75	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	24	G	C4-C5-N7	-6.49	108.20	110.80
25	BA	534	U	C5-C6-N1	-6.49	119.46	122.70
25	BA	695	G	C5-C6-N1	-6.49	108.26	111.50
25	BA	2729	G	C5-C6-O6	6.49	132.49	128.60
25	DA	797	C	N3-C4-N4	6.49	122.54	118.00
1	AA	1281	U	N1-C2-O2	6.49	127.34	122.80
25	BA	1843	C	C5-C6-N1	-6.49	117.76	121.00
25	BA	2807	G	C5-C6-O6	6.49	132.49	128.60
26	BB	53	A	C4-C5-N7	6.49	113.94	110.70
25	BA	1721	G	N7-C8-N9	6.48	116.34	113.10
25	DA	178	G	C8-N9-C4	-6.48	103.81	106.40
25	BA	437	G	N9-C4-C5	-6.48	102.81	105.40
25	BA	2605	U	N1-C2-O2	6.48	127.34	122.80
25	DA	645	C	C6-N1-C1'	-6.48	113.02	120.80
1	AA	921	U	C2-N3-C4	6.48	130.89	127.00
25	BA	1018	C	N3-C2-O2	6.48	126.44	121.90
25	BA	1247	A	C2-N3-C4	-6.48	107.36	110.60
25	BA	2675	A	C2-N3-C4	6.48	113.84	110.60
25	BA	1218	C	N3-C4-C5	-6.48	119.31	121.90
1	AA	117	G	C6-C5-N7	-6.47	126.52	130.40
25	BA	1939	U	N3-C2-O2	6.47	126.73	122.20
1	CA	832	C	C6-N1-C1'	-6.47	113.03	120.80
11	AK	13	GLN	N-CA-C	6.47	128.48	111.00
25	BA	304	G	C5-C6-O6	-6.47	124.72	128.60
25	BA	1253	A	N1-C2-N3	-6.47	126.06	129.30
25	DA	407	G	C4-N9-C1'	6.47	134.91	126.50
25	DA	1142(A)	A	C6-C5-N7	-6.47	127.77	132.30
25	DA	1638	C	C6-N1-C2	6.47	122.89	120.30
25	BA	71	A	N3-C4-N9	-6.47	122.22	127.40
25	BA	271(B)	C	C6-N1-C2	6.47	122.89	120.30
25	BA	1847	A	C8-N9-C4	-6.47	103.21	105.80
25	BA	2466	C	C6-N1-C2	6.47	122.89	120.30
1	CA	495	A	N1-C6-N6	-6.47	114.72	118.60
25	BA	71	A	N3-C4-C5	6.47	131.33	126.80
25	BA	2249	U	C5-C4-O4	6.47	129.78	125.90
25	BA	2545	G	C8-N9-C4	-6.47	103.81	106.40
1	CA	1269	A	N1-C6-N6	-6.47	114.72	118.60
25	BA	949	C	C5-C6-N1	-6.47	117.77	121.00
25	BA	1940	U	C4-C5-C6	6.47	123.58	119.70
25	DA	429	A	C5-C6-N6	-6.47	118.53	123.70
23	AV	35	A	C8-N9-C4	6.47	108.39	105.80
25	BA	224	G	C8-N9-C1'	-6.47	118.59	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	420	C	N3-C4-C5	6.47	124.49	121.90
25	BA	1030	G	N9-C4-C5	-6.47	102.81	105.40
25	BA	2083	G	C6-C5-N7	-6.47	126.52	130.40
25	BA	72	U	C5-C4-O4	-6.46	122.02	125.90
25	BA	231	C	N1-C2-O2	-6.46	115.02	118.90
25	DA	450	G	C5-C6-O6	6.46	132.48	128.60
25	BA	1819	A	C5-C6-N6	6.46	128.87	123.70
25	DA	1266	G	C8-N9-C4	6.46	108.98	106.40
25	BA	473	G	C8-N9-C4	6.46	108.98	106.40
25	BA	1438	U	N3-C4-O4	6.46	123.92	119.40
25	BA	1664	A	N9-C4-C5	6.46	108.39	105.80
1	AA	598	U	N3-C4-C5	-6.46	110.72	114.60
25	BA	1311	G	N3-C2-N2	-6.46	115.38	119.90
25	BA	1938	A	C8-N9-C4	-6.46	103.22	105.80
25	DA	6	A	C6-N1-C2	-6.46	114.72	118.60
1	AA	1502	A	C5-C6-N6	-6.46	118.53	123.70
25	BA	1446	C	C5-C6-N1	6.46	124.23	121.00
25	BA	1648	C	C2-N3-C4	-6.46	116.67	119.90
25	BA	2308	G	N9-C4-C5	-6.46	102.82	105.40
25	BA	2392	A	C2-N3-C4	-6.46	107.37	110.60
25	DA	80	G	N3-C4-N9	6.46	129.87	126.00
25	BA	673	C	C2-N3-C4	-6.46	116.67	119.90
25	BA	29	U	C5-C4-O4	-6.45	122.03	125.90
25	BA	1243	G	C8-N9-C4	6.45	108.98	106.40
25	BA	2486	G	N3-C4-C5	-6.45	125.37	128.60
1	CA	895	G	C5-C6-O6	-6.45	124.73	128.60
1	CA	1290	G	N3-C4-N9	6.45	129.87	126.00
25	DA	2897	U	C5-C4-O4	-6.45	122.03	125.90
25	BA	2751	G	C8-N9-C1'	-6.45	118.61	127.00
1	CA	629	G	N3-C4-C5	6.45	131.82	128.60
25	DA	1959	G	N9-C4-C5	6.45	107.98	105.40
1	AA	789	U	C6-N1-C2	-6.45	117.13	121.00
25	BA	566	U	C5-C4-O4	-6.45	122.03	125.90
25	BA	1816	G	C5-C6-O6	-6.45	124.73	128.60
25	BA	2686	G	C8-N9-C4	-6.45	103.82	106.40
25	DA	1559	G	N1-C6-O6	-6.45	116.03	119.90
1	AA	1324	A	C6-N1-C2	-6.45	114.73	118.60
25	BA	567	A	C5-N7-C8	-6.45	100.68	103.90
25	BA	600	G	N3-C4-C5	6.45	131.82	128.60
25	BA	1007	C	N1-C2-O2	-6.45	115.03	118.90
26	BB	85	G	C8-N9-C1'	-6.45	118.62	127.00
25	DA	710	G	N1-C6-O6	6.45	123.77	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2058	A	C5-N7-C8	-6.45	100.68	103.90
25	BA	1363	C	N3-C2-O2	-6.44	117.39	121.90
1	AA	511	C	C4-C5-C6	6.44	120.62	117.40
25	DA	2504	U	C6-N1-C2	6.44	124.86	121.00
25	BA	1232	G	C6-N1-C2	-6.44	121.24	125.10
26	DB	56	G	C8-N9-C4	-6.44	103.83	106.40
1	AA	1282	C	C2-N1-C1'	6.44	125.88	118.80
25	BA	1500	G	N1-C6-O6	6.44	123.76	119.90
25	BA	1610	A	N1-C2-N3	-6.44	126.08	129.30
25	BA	2820	A	C2-N3-C4	-6.44	107.38	110.60
25	DA	2709	G	N1-C6-O6	6.44	123.76	119.90
25	BA	121	G	N3-C2-N2	-6.43	115.40	119.90
25	DA	706	A	N9-C4-C5	-6.43	103.23	105.80
25	DA	1493	C	N3-C2-O2	-6.43	117.40	121.90
48	D2	45	SER	N-CA-C	-6.43	93.63	111.00
1	AA	231	G	N1-C6-O6	6.43	123.76	119.90
25	BA	675	A	C5-C6-N6	-6.43	118.55	123.70
25	BA	2674	G	N3-C2-N2	-6.43	115.40	119.90
25	DA	2695	C	N3-C4-N4	-6.43	113.50	118.00
1	AA	1352	C	C6-N1-C2	-6.43	117.73	120.30
25	BA	1816	G	N3-C4-N9	6.43	129.86	126.00
25	BA	1825	A	C8-N9-C4	6.43	108.37	105.80
1	AA	1467	G	C8-N9-C4	-6.43	103.83	106.40
1	AA	1502	A	C5-C6-N1	-6.43	114.48	117.70
25	BA	399	G	N3-C4-C5	6.43	131.81	128.60
25	BA	1584	C	C5-C6-N1	6.43	124.22	121.00
25	BA	2560	C	C2-N3-C4	-6.43	116.69	119.90
25	BA	434	U	N1-C2-N3	6.43	118.76	114.90
25	BA	482	A	N1-C2-N3	6.43	132.51	129.30
25	BA	2835	A	C6-N1-C2	-6.43	114.74	118.60
25	BA	656	G	N1-C6-O6	6.43	123.76	119.90
25	BA	1170	G	C6-C5-N7	-6.43	126.54	130.40
25	BA	2225	A	C6-N1-C2	-6.43	114.74	118.60
25	BA	2227	A	N1-C6-N6	-6.43	114.74	118.60
25	BA	2783	G	C8-N9-C1'	-6.43	118.65	127.00
26	BB	75	G	C8-N9-C1'	-6.42	118.65	127.00
1	CA	398	C	C5-C4-N4	6.42	124.70	120.20
25	BA	1208	C	C4-C5-C6	6.42	120.61	117.40
25	BA	1332	G	N3-C2-N2	-6.42	115.40	119.90
1	CA	499	A	C8-N9-C4	6.42	108.37	105.80
1	AA	728	A	N1-C6-N6	6.42	122.45	118.60
25	DA	982	C	N3-C4-C5	-6.42	119.33	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	72	G	N9-C4-C5	-6.42	102.83	105.40
25	BA	567	A	C4-C5-N7	6.42	113.91	110.70
25	DA	1314	C	C5-C4-N4	-6.42	115.71	120.20
1	AA	1401	G	C4-C5-N7	6.42	113.37	110.80
25	BA	130	C	C5-C6-N1	-6.42	117.79	121.00
25	BA	213	A	C4-C5-C6	-6.42	113.79	117.00
1	CA	1414	U	N3-C2-O2	-6.42	117.71	122.20
25	DA	269	U	N1-C2-O2	6.42	127.29	122.80
25	DA	1516	C	C6-N1-C2	6.42	122.87	120.30
25	BA	2200	C	C6-N1-C2	-6.42	117.73	120.30
2	AB	169	LYS	N-CA-C	-6.41	93.69	111.00
25	BA	974	G	C5-C6-O6	-6.41	124.75	128.60
25	BA	1278	A	C4-C5-C6	6.41	120.21	117.00
25	BA	2348	U	C5-C6-N1	-6.41	119.49	122.70
25	DA	1204	A	C3'-C2'-C1'	-6.41	96.37	101.50
25	DA	2105	C	C6-N1-C2	-6.41	117.73	120.30
25	BA	16	G	N1-C2-N3	6.41	127.75	123.90
25	BA	1628	G	C8-N9-C4	-6.41	103.83	106.40
25	BA	2869	G	C4-C5-C6	6.41	122.65	118.80
25	DA	676	A	C6-C5-N7	-6.41	127.81	132.30
25	BA	590	A	N1-C6-N6	-6.41	114.75	118.60
25	BA	2352	A	C8-N9-C4	6.41	108.36	105.80
25	DA	1260	G	C8-N9-C4	6.41	108.96	106.40
25	BA	939	G	N3-C2-N2	6.41	124.39	119.90
25	BA	1421	G	C8-N9-C4	-6.41	103.84	106.40
25	BA	2791	C	C6-N1-C2	-6.41	117.74	120.30
25	DA	201	C	C2-N3-C4	-6.41	116.70	119.90
1	AA	1206	G	N3-C4-N9	6.41	129.84	126.00
26	BB	91	C	N3-C4-C5	6.41	124.46	121.90
25	DA	12	U	N3-C2-O2	-6.41	117.72	122.20
26	BB	104	U	C5-C6-N1	-6.41	119.50	122.70
1	CA	638	G	C4-N9-C1'	-6.41	118.17	126.50
25	DA	1552	G	C5-C6-O6	6.41	132.44	128.60
25	BA	733	G	N3-C4-C5	-6.40	125.40	128.60
25	BA	2377	A	N9-C4-C5	-6.40	103.24	105.80
25	BA	1207	C	N3-C4-C5	6.40	124.46	121.90
25	BA	1293	C	N3-C4-C5	6.40	124.46	121.90
25	BA	2736	G	N3-C2-N2	-6.40	115.42	119.90
1	CA	1259	C	C5-C6-N1	6.40	124.20	121.00
25	DA	1654	A	N1-C6-N6	-6.40	114.76	118.60
25	DA	2503	A	C2-N3-C4	6.40	113.80	110.60
25	BA	298	G	C5-C6-N1	-6.40	108.30	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2729	G	N1-C6-O6	-6.40	116.06	119.90
25	BA	1973	G	C2-N3-C4	-6.40	108.70	111.90
25	BA	532	A	C8-N9-C4	-6.39	103.24	105.80
1	CA	1358	U	N3-C4-C5	6.39	118.44	114.60
25	DA	480	A	N7-C8-N9	6.39	117.00	113.80
25	DA	787	U	N3-C2-O2	-6.39	117.72	122.20
25	DA	1488	G	C8-N9-C4	-6.39	103.84	106.40
23	AV	13	C	C2-N1-C1'	6.39	125.83	118.80
25	BA	768	G	C6-C5-N7	-6.39	126.56	130.40
25	BA	1230	C	C6-N1-C2	6.39	122.86	120.30
25	BA	1781	C	N1-C2-N3	-6.39	114.72	119.20
1	AA	36	C	N3-C2-O2	-6.39	117.43	121.90
25	BA	1035	U	C5-C6-N1	-6.39	119.50	122.70
25	BA	2869	G	N3-C4-C5	-6.39	125.40	128.60
25	BA	686	G	N9-C4-C5	-6.39	102.84	105.40
25	BA	1325	G	N3-C4-N9	6.39	129.83	126.00
25	BA	1772	G	C8-N9-C4	6.39	108.96	106.40
1	CA	1274	G	C6-C5-N7	-6.39	126.57	130.40
25	BA	1152	C	N3-C4-C5	6.39	124.45	121.90
25	BA	1966	A	N1-C6-N6	6.39	122.43	118.60
25	BA	1257	C	C2-N1-C1'	6.39	125.83	118.80
25	BA	2614	A	N7-C8-N9	-6.39	110.61	113.80
25	DA	659	C	C6-N1-C2	6.39	122.86	120.30
25	DA	2206	G	C4-N9-C1'	-6.39	118.20	126.50
25	BA	1196	C	N1-C2-O2	-6.38	115.07	118.90
25	BA	1246	A	N1-C2-N3	6.38	132.49	129.30
34	DO	8	LEU	CA-CB-CG	6.38	129.98	115.30
1	AA	224	C	C6-N1-C2	-6.38	117.75	120.30
25	BA	1769	G	C8-N9-C1'	-6.38	118.71	127.00
25	BA	2715	C	C6-N1-C2	6.38	122.85	120.30
25	BA	2726	U	C6-N1-C2	6.38	124.83	121.00
1	CA	1502	A	C4-C5-N7	6.38	113.89	110.70
25	DA	834	C	C6-N1-C2	-6.38	117.75	120.30
1	CA	979	C	C6-N1-C2	-6.38	117.75	120.30
25	DA	725	G	C8-N9-C4	-6.38	103.85	106.40
25	DA	759	G	N3-C2-N2	-6.38	115.44	119.90
25	BA	984	A	C8-N9-C4	6.37	108.35	105.80
25	BA	2091	U	N1-C2-N3	6.37	118.72	114.90
25	BA	2383	G	C8-N9-C1'	-6.37	118.72	127.00
25	BA	2446	G	N1-C6-O6	6.37	123.72	119.90
4	CD	31	CYS	CB-CA-C	6.37	123.15	110.40
25	BA	151	C	C2-N1-C1'	-6.37	111.79	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	190	A	N1-C6-N6	6.37	122.42	118.60
25	BA	202	U	N1-C2-N3	-6.37	111.08	114.90
25	BA	2051	A	N1-C2-N3	6.37	132.49	129.30
25	BA	2512	C	C5-C6-N1	-6.37	117.81	121.00
25	BA	2597	G	C5-C6-O6	6.37	132.42	128.60
25	DA	794	G	C8-N9-C4	6.37	108.95	106.40
25	DA	1142	U	N3-C2-O2	-6.37	117.74	122.20
25	DA	2080	G	N7-C8-N9	6.37	116.29	113.10
1	AA	1290	G	N7-C8-N9	6.37	116.28	113.10
25	BA	630	G	C8-N9-C4	6.37	108.95	106.40
25	BA	729	G	C6-C5-N7	-6.37	126.58	130.40
25	DA	2031	A	N1-C6-N6	6.37	122.42	118.60
25	DA	2695	C	C6-N1-C2	6.37	122.85	120.30
1	AA	107	G	C8-N9-C4	6.37	108.95	106.40
25	BA	117	G	N3-C4-N9	6.37	129.82	126.00
25	BA	139	G	C5-C6-N1	6.37	114.68	111.50
25	BA	2789	C	C5-C6-N1	6.37	124.18	121.00
25	DA	184	C	N3-C4-N4	6.36	122.45	118.00
25	DA	812	C	N3-C4-C5	-6.36	119.35	121.90
1	AA	15	G	C8-N9-C1'	-6.36	118.73	127.00
25	BA	1193	G	C2-N3-C4	-6.36	108.72	111.90
25	DA	745	G	C8-N9-C4	-6.36	103.86	106.40
25	BA	210	C	C2-N3-C4	-6.36	116.72	119.90
25	BA	624	C	C6-N1-C2	6.36	122.84	120.30
25	BA	2083	G	N1-C2-N3	6.36	127.72	123.90
25	BA	2185	C	C6-N1-C2	-6.36	117.75	120.30
1	AA	770	C	C6-N1-C2	6.36	122.84	120.30
25	BA	2267	A	N1-C2-N3	6.36	132.48	129.30
25	BA	2409	G	C5-C6-N1	6.36	114.68	111.50
25	DA	748	G	C2-N3-C4	6.36	115.08	111.90
25	BA	106	C	N3-C2-O2	6.36	126.35	121.90
25	BA	2228	G	C8-N9-C1'	-6.36	118.73	127.00
1	CA	904	C	C5-C4-N4	-6.36	115.75	120.20
25	DA	1831	G	N1-C2-N3	6.36	127.72	123.90
1	AA	541	G	N3-C2-N2	-6.36	115.45	119.90
18	AR	85	LEU	CA-CB-CG	6.36	129.92	115.30
25	BA	748	G	C6-N1-C2	-6.35	121.29	125.10
25	BA	1655	A	N1-C6-N6	6.35	122.41	118.60
25	BA	2564	A	C6-N1-C2	-6.35	114.79	118.60
25	BA	336	C	C4-C5-C6	6.35	120.58	117.40
25	BA	481	G	C4-N9-C1'	6.35	134.76	126.50
25	BA	2430	A	C5-N7-C8	-6.35	100.72	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2644	G	C8-N9-C4	-6.35	103.86	106.40
25	BA	2436	G	N1-C6-O6	-6.35	116.09	119.90
25	BA	2587	A	N1-C2-N3	6.35	132.47	129.30
25	BA	1753	G	N3-C4-N9	-6.35	122.19	126.00
1	CA	1290	G	N3-C4-C5	-6.35	125.43	128.60
25	DA	148	C	N3-C4-C5	6.35	124.44	121.90
25	BA	657	U	N1-C2-N3	6.35	118.71	114.90
25	BA	770	G	C6-N1-C2	-6.35	121.29	125.10
25	BA	2574	G	C4-C5-N7	6.35	113.34	110.80
25	BA	2582	G	N3-C2-N2	6.35	124.34	119.90
26	BB	89	G	C8-N9-C1'	-6.35	118.75	127.00
25	BA	2008	C	C5-C4-N4	-6.34	115.76	120.20
25	BA	2371	G	N1-C2-N3	-6.34	120.09	123.90
25	BA	2458	G	N3-C2-N2	-6.34	115.46	119.90
25	BA	2510	C	N1-C2-O2	6.34	122.71	118.90
25	BA	1297	C	N1-C2-O2	-6.34	115.09	118.90
1	CA	740	U	C5-C6-N1	-6.34	119.53	122.70
26	DB	115	G	N3-C4-C5	6.34	131.77	128.60
1	AA	231	G	C6-C5-N7	-6.34	126.60	130.40
25	BA	1632	A	C5-C6-N6	-6.34	118.63	123.70
25	BA	1776	G	N3-C2-N2	6.34	124.34	119.90
25	BA	2576	G	N3-C2-N2	-6.34	115.46	119.90
1	CA	416	G	C5-C6-O6	-6.34	124.80	128.60
25	DA	141	A	C4-C5-C6	6.34	120.17	117.00
25	DA	297	C	C6-N1-C2	-6.34	117.76	120.30
25	DA	1677	A	N9-C4-C5	-6.34	103.26	105.80
25	BA	928	G	C8-N9-C1'	-6.34	118.76	127.00
25	BA	1245	G	C6-N1-C2	-6.34	121.30	125.10
25	BA	1976	U	C5-C4-O4	6.34	129.70	125.90
1	CA	546	G	C8-N9-C4	-6.34	103.87	106.40
25	BA	2894	G	C4-N9-C1'	6.33	134.74	126.50
1	CA	525	C	C5-C6-N1	6.33	124.17	121.00
25	DA	1246	A	C2-N3-C4	-6.33	107.43	110.60
1	AA	488	C	C5-C6-N1	6.33	124.17	121.00
25	BA	967	C	N3-C4-C5	6.33	124.43	121.90
25	BA	2050	C	N1-C2-O2	-6.33	115.10	118.90
25	BA	2538	C	C5-C6-N1	-6.33	117.83	121.00
25	BA	2827	C	C5-C4-N4	-6.33	115.77	120.20
26	BB	99	G	N9-C4-C5	-6.33	102.87	105.40
1	AA	898	G	N7-C8-N9	-6.33	109.94	113.10
25	BA	926	A	C5-C6-N1	6.33	120.87	117.70
25	BA	1154	G	N7-C8-N9	6.33	116.27	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1403	C	C5-C6-N1	-6.33	117.83	121.00
25	BA	1799	G	N1-C6-O6	-6.33	116.10	119.90
25	BA	1237	A	C5-C6-N6	6.33	128.76	123.70
25	DA	1781	C	C6-N1-C2	6.33	122.83	120.30
25	BA	377	C	C5-C4-N4	-6.33	115.77	120.20
25	BA	208	C	N3-C4-C5	6.33	124.43	121.90
1	CA	297	G	C8-N9-C4	6.33	108.93	106.40
1	CA	917	G	N7-C8-N9	6.33	116.26	113.10
25	DA	154(A)	C	N1-C2-O2	6.33	122.69	118.90
25	BA	204	A	C4-C5-N7	-6.32	107.54	110.70
1	AA	336	C	C6-N1-C2	6.32	122.83	120.30
1	AA	1429	C	N3-C2-O2	6.32	126.33	121.90
25	BA	2592	G	C8-N9-C4	-6.32	103.87	106.40
25	DA	2723	C	N1-C2-O2	-6.32	115.11	118.90
1	AA	1312	G	C8-N9-C4	-6.32	103.87	106.40
26	BB	20	C	N3-C4-N4	6.32	122.42	118.00
25	DA	1369	G	C5-C6-N1	6.32	114.66	111.50
1	CA	219	C	C6-N1-C2	-6.32	117.77	120.30
25	BA	793	A	C6-C5-N7	-6.32	127.88	132.30
25	BA	1801	G	N1-C6-O6	6.32	123.69	119.90
25	BA	336	C	N1-C2-O2	-6.32	115.11	118.90
25	BA	1753	G	C5-N7-C8	-6.32	101.14	104.30
25	DA	391	G	C8-N9-C1'	-6.32	118.79	127.00
25	DA	944	G	C5-C6-N1	-6.32	108.34	111.50
25	BA	2015	A	C8-N9-C4	6.31	108.33	105.80
25	DA	498	G	N1-C2-N3	-6.31	120.11	123.90
25	DA	734	A	N1-C6-N6	6.31	122.39	118.60
1	AA	1227	A	C2-N3-C4	-6.31	107.44	110.60
25	BA	798	G	N1-C2-N2	-6.31	110.52	116.20
25	BA	990	A	N7-C8-N9	6.31	116.96	113.80
25	BA	1843	C	C5-C4-N4	-6.31	115.78	120.20
25	BA	2072	G	C4-C5-N7	6.31	113.33	110.80
25	DA	2506	U	N3-C2-O2	-6.31	117.78	122.20
25	DA	2396	G	N9-C4-C5	-6.31	102.88	105.40
25	BA	24	G	C4-C5-C6	6.31	122.59	118.80
1	CA	20	U	C5-C6-N1	-6.31	119.55	122.70
1	AA	77	G	N3-C2-N2	6.31	124.32	119.90
22	AY	68	GLY	N-CA-C	6.31	128.87	113.10
25	BA	994	C	C6-N1-C2	6.31	122.82	120.30
25	BA	1177	A	C8-N9-C4	-6.31	103.28	105.80
25	BA	1229	G	C2-N3-C4	-6.31	108.75	111.90
1	AA	1358	U	N3-C4-C5	6.30	118.38	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	725	G	C4-C5-C6	6.30	122.58	118.80
25	BA	1184	G	N1-C2-N2	6.30	121.87	116.20
1	AA	518	C	N3-C2-O2	-6.30	117.49	121.90
25	BA	36	G	C8-N9-C4	6.30	108.92	106.40
25	BA	1161	C	N1-C2-O2	6.30	122.68	118.90
26	BB	24	G	C4-C5-N7	6.30	113.32	110.80
25	BA	224	G	N1-C2-N2	-6.30	110.53	116.20
25	BA	518	G	N3-C2-N2	6.30	124.31	119.90
25	BA	646	A	C6-C5-N7	-6.30	127.89	132.30
25	BA	2246	G	C5-C6-N1	6.30	114.65	111.50
25	BA	2489	G	C8-N9-C4	6.30	108.92	106.40
25	BA	1701	A	C6-C5-N7	-6.30	127.89	132.30
1	AA	1145	C	C5-C6-N1	6.30	124.15	121.00
25	BA	545	G	N1-C6-O6	6.30	123.68	119.90
25	BA	1506	C	N3-C2-O2	-6.30	117.49	121.90
25	BA	1650	G	C6-C5-N7	-6.30	126.62	130.40
25	DA	730	C	C6-N1-C2	6.30	122.82	120.30
25	DA	297	C	N3-C2-O2	-6.29	117.49	121.90
25	BA	481	G	C8-N9-C1'	-6.29	118.82	127.00
25	BA	1472	A	C2-N3-C4	-6.29	107.45	110.60
25	BA	2616	C	C5-C4-N4	-6.29	115.80	120.20
50	B4	42	PHE	C-N-CA	6.29	137.44	121.70
25	BA	921	G	C4-C5-C6	6.29	122.58	118.80
25	BA	2434	A	C2-N3-C4	-6.29	107.45	110.60
26	BB	56	G	N3-C4-N9	6.29	129.78	126.00
25	DA	1640	C	N1-C2-O2	6.29	122.67	118.90
25	DA	2598	A	C6-C5-N7	-6.29	127.90	132.30
25	DA	2709	G	N3-C2-N2	-6.29	115.50	119.90
25	BA	1037	G	C8-N9-C4	6.29	108.92	106.40
25	BA	2614	A	N1-C2-N3	-6.29	126.16	129.30
25	DA	265	A	C8-N9-C4	-6.29	103.28	105.80
1	AA	1242	C	C6-N1-C2	6.29	122.81	120.30
25	BA	556	G	N1-C6-O6	6.29	123.67	119.90
25	DA	455	C	C6-N1-C2	6.29	122.81	120.30
25	BA	728	G	C8-N9-C4	6.29	108.91	106.40
25	BA	1427	A	C5-C6-N6	-6.29	118.67	123.70
25	BA	1525	G	C5-N7-C8	6.29	107.44	104.30
25	BA	1586	A	C8-N9-C4	-6.29	103.29	105.80
25	BA	1609	A	C8-N9-C4	6.29	108.31	105.80
25	DA	979	G	C8-N9-C4	-6.29	103.89	106.40
25	BA	218	A	C2-N3-C4	-6.28	107.46	110.60
25	BA	506	G	C5-C6-O6	-6.28	124.83	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1787	A	C2-N3-C4	-6.28	107.46	110.60
25	BA	2645	G	C8-N9-C4	-6.28	103.89	106.40
1	CA	395	C	C6-N1-C2	-6.28	117.79	120.30
25	DA	2423	U	C5-C6-N1	-6.28	119.56	122.70
25	BA	1464	C	C6-N1-C2	-6.28	117.79	120.30
25	BA	2567	G	C5-C6-N1	-6.28	108.36	111.50
25	DA	915	C	C6-N1-C2	-6.28	117.79	120.30
25	BA	484	C	N1-C2-O2	-6.28	115.13	118.90
1	AA	1285	A	C8-N9-C4	-6.28	103.29	105.80
25	BA	1774	C	C6-N1-C2	-6.28	117.79	120.30
25	BA	1855	G	C5-C6-N1	6.28	114.64	111.50
25	BA	2538	C	N3-C4-C5	6.28	124.41	121.90
25	DA	2200	C	C5-C6-N1	6.28	124.14	121.00
1	AA	261	U	N3-C4-C5	-6.28	110.83	114.60
25	BA	941	A	N9-C4-C5	-6.28	103.29	105.80
25	BA	2327	A	N1-C6-N6	-6.28	114.83	118.60
25	BA	2680	C	C6-N1-C2	6.28	122.81	120.30
25	DA	533	G	C5-C6-N1	-6.28	108.36	111.50
25	DA	1552	G	C6-C5-N7	6.28	134.16	130.40
25	DA	1644	C	N1-C2-O2	6.28	122.67	118.90
25	DA	90	U	N1-C2-O2	6.27	127.19	122.80
25	DA	1359	A	N1-C6-N6	-6.27	114.83	118.60
1	AA	511	C	N1-C2-N3	6.27	123.59	119.20
1	AA	1442	G	N3-C4-N9	-6.27	122.24	126.00
26	BB	62	C	C6-N1-C2	6.27	122.81	120.30
25	BA	1758	G	C8-N9-C4	-6.27	103.89	106.40
25	BA	2549	G	C5-C6-O6	-6.27	124.84	128.60
25	BA	448	U	C5-C6-N1	-6.27	119.57	122.70
25	BA	2364	C	N3-C4-C5	6.27	124.41	121.90
26	BB	85	G	N1-C6-O6	6.27	123.66	119.90
25	DA	494	G	N3-C4-C5	6.27	131.73	128.60
25	DA	1005	C	N3-C4-N4	-6.27	113.61	118.00
25	DA	2531	A	C8-N9-C4	6.27	108.31	105.80
23	AV	13	C	N3-C4-N4	6.27	122.39	118.00
25	BA	2686	G	C6-C5-N7	-6.27	126.64	130.40
26	BB	95	C	C6-N1-C2	6.27	122.81	120.30
25	DA	1372	U	N3-C4-O4	6.27	123.79	119.40
25	DA	2680	C	N3-C4-C5	6.27	124.41	121.90
25	BA	669	G	N9-C4-C5	-6.26	102.89	105.40
25	BA	685	A	C4-C5-N7	6.26	113.83	110.70
25	BA	810	U	N3-C2-O2	-6.26	117.81	122.20
25	BA	1669	A	C8-N9-C4	-6.26	103.29	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	254	G	C8-N9-C4	-6.26	103.89	106.40
25	DA	1656	C	C5-C6-N1	6.26	124.13	121.00
25	DA	2591	C	N1-C2-O2	-6.26	115.14	118.90
25	BA	2244	U	C5-C4-O4	6.26	129.66	125.90
25	DA	1340	U	C5-C4-O4	-6.26	122.14	125.90
1	AA	1113	C	C5-C6-N1	6.26	124.13	121.00
25	BA	2644	G	N3-C4-N9	-6.26	122.24	126.00
25	BA	935	C	N3-C4-C5	6.26	124.40	121.90
1	CA	129(A)	G	C5-C6-N1	-6.26	108.37	111.50
25	DA	857	C	C6-N1-C2	-6.26	117.80	120.30
25	DA	955	C	N3-C4-N4	-6.26	113.62	118.00
25	DA	1631(A)	A	C5-C6-N1	-6.26	114.57	117.70
25	BA	17	G	N3-C4-C5	-6.26	125.47	128.60
25	BA	1310	G	C5-C6-N1	6.26	114.63	111.50
25	DA	481	G	N7-C8-N9	6.26	116.23	113.10
25	DA	584	C	C6-N1-C2	6.26	122.80	120.30
25	DA	693	C	N3-C4-N4	-6.26	113.62	118.00
25	BA	2455	G	C6-N1-C2	-6.25	121.35	125.10
25	BA	1476	C	N3-C2-O2	-6.25	117.52	121.90
25	BA	1653	G	P-O3'-C3'	6.25	127.20	119.70
25	DA	353	G	C8-N9-C4	-6.25	103.90	106.40
25	BA	1906	G	N1-C6-O6	6.25	123.65	119.90
25	BA	2007	C	C4-C5-C6	6.25	120.53	117.40
25	BA	2726	U	C5-C6-N1	-6.25	119.58	122.70
1	CA	831	U	C5-C6-N1	6.25	125.83	122.70
1	AA	266	G	C4-C5-C6	6.25	122.55	118.80
1	AA	1149	C	C2-N3-C4	6.25	123.02	119.90
25	BA	556	G	C2-N3-C4	-6.25	108.78	111.90
25	BA	2052	G	C5-C6-N1	6.25	114.62	111.50
25	BA	2088	G	N1-C6-O6	6.25	123.65	119.90
25	BA	2692	C	N1-C2-O2	6.25	122.65	118.90
1	AA	166	G	C8-N9-C4	-6.25	103.90	106.40
1	AA	529	G	C4-C5-N7	6.25	113.30	110.80
1	AA	1412	C	C5-C6-N1	-6.25	117.88	121.00
25	BA	139	G	C2-N3-C4	6.25	115.02	111.90
25	BA	2348	U	C6-N1-C2	6.25	124.75	121.00
25	BA	798	G	C6-N1-C2	-6.24	121.35	125.10
25	BA	1325	G	C2-N3-C4	6.24	115.02	111.90
25	DA	330	A	C2-N3-C4	-6.24	107.48	110.60
25	DA	1408	C	N1-C2-O2	-6.24	115.15	118.90
25	DA	1650	G	C5-C6-O6	-6.24	124.85	128.60
25	BA	522	G	N1-C6-O6	6.24	123.64	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	688	U	C4-C5-C6	6.24	123.44	119.70
25	BA	71	A	C6-C5-N7	-6.24	127.93	132.30
25	BA	927	G	C2-N3-C4	-6.24	108.78	111.90
1	AA	22	G	N1-C6-O6	6.24	123.64	119.90
1	AA	163	C	C6-N1-C2	-6.24	117.81	120.30
25	BA	506	G	C6-N1-C2	-6.24	121.36	125.10
25	BA	942	G	N3-C2-N2	-6.24	115.53	119.90
25	BA	1115	G	C8-N9-C4	6.24	108.89	106.40
25	BA	1194	A	C8-N9-C4	6.24	108.30	105.80
26	BB	87	G	N1-C6-O6	-6.24	116.16	119.90
25	DA	2689	U	N3-C4-O4	-6.24	115.03	119.40
1	AA	59	A	C2-N3-C4	6.24	113.72	110.60
25	BA	1668	A	C5-C6-N6	-6.24	118.71	123.70
26	BB	80	U	N1-C2-N3	6.24	118.64	114.90
25	BA	109	G	N1-C6-O6	-6.24	116.16	119.90
25	BA	1816	G	N9-C4-C5	-6.24	102.91	105.40
25	BA	2429	G	N3-C4-C5	-6.24	125.48	128.60
25	BA	679	C	N3-C4-C5	6.23	124.39	121.90
25	BA	1042	G	C5-C6-O6	-6.23	124.86	128.60
25	BA	1374	G	N1-C6-O6	6.23	123.64	119.90
25	BA	2228	G	N3-C4-C5	-6.23	125.48	128.60
25	DA	2283	C	C6-N1-C2	6.23	122.79	120.30
25	DA	2647	U	C5-C4-O4	6.23	129.64	125.90
1	AA	802	A	N1-C6-N6	6.23	122.34	118.60
25	BA	337	C	N3-C2-O2	6.23	126.26	121.90
25	BA	1133	U	C5-C4-O4	-6.23	122.16	125.90
25	BA	1223	G	N3-C2-N2	6.23	124.26	119.90
25	BA	2885	C	N1-C2-O2	-6.23	115.16	118.90
25	BA	905	U	N1-C2-N3	6.23	118.64	114.90
25	DA	2081	C	N3-C2-O2	6.23	126.26	121.90
1	AA	1442	G	C2-N3-C4	-6.23	108.79	111.90
25	BA	841	A	C2-N3-C4	-6.23	107.49	110.60
25	BA	1156	A	N1-C6-N6	6.23	122.34	118.60
25	BA	1457	A	C4-C5-C6	6.23	120.11	117.00
25	BA	1602	U	N1-C2-O2	6.23	127.16	122.80
25	DA	765	G	C5-C6-O6	-6.23	124.86	128.60
25	DA	2587	A	C5-C6-N6	-6.23	118.72	123.70
1	AA	860	A	N1-C6-N6	6.23	122.34	118.60
25	BA	1331	A	N1-C2-N3	6.23	132.41	129.30
25	DA	1678	G	C4-N9-C1'	6.23	134.59	126.50
25	BA	188	G	N1-C2-N3	6.22	127.63	123.90
25	BA	1933	G	C6-C5-N7	-6.22	126.67	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2002	G	C5-N7-C8	6.22	107.41	104.30
25	BA	2318	G	C5-N7-C8	-6.22	101.19	104.30
25	BA	1672	C	N3-C4-N4	6.22	122.36	118.00
25	BA	2268	A	N1-C2-N3	6.22	132.41	129.30
25	DA	2005	A	C2-N3-C4	-6.22	107.49	110.60
1	AA	1286	A	C8-N9-C4	-6.22	103.31	105.80
25	BA	59	U	N3-C2-O2	-6.22	117.84	122.20
25	BA	2639	A	C2-N3-C4	-6.22	107.49	110.60
26	BB	47	C	N3-C2-O2	6.22	126.25	121.90
1	CA	1516	G	C8-N9-C4	6.22	108.89	106.40
25	BA	71	A	C8-N9-C4	-6.22	103.31	105.80
25	BA	556	G	C4-C5-N7	6.22	113.29	110.80
1	CA	363	A	N7-C8-N9	-6.22	110.69	113.80
25	BA	1527	G	C4-C5-N7	-6.22	108.31	110.80
1	AA	319	G	N9-C4-C5	-6.21	102.91	105.40
1	AA	900	A	C4-C5-N7	6.21	113.81	110.70
1	AA	1127	G	N3-C4-C5	6.21	131.71	128.60
25	BA	1153	C	C6-N1-C2	-6.21	117.81	120.30
25	BA	198	C	N1-C2-O2	6.21	122.63	118.90
25	BA	818	G	C5-C6-O6	-6.21	124.87	128.60
26	BB	78	A	N1-C2-N3	6.21	132.41	129.30
25	DA	1968	G	C5-C6-O6	-6.21	124.87	128.60
1	AA	672	U	N3-C2-O2	-6.21	117.85	122.20
1	AA	1044	A	C5-C6-N6	6.21	128.67	123.70
25	BA	732	C	N1-C2-N3	6.21	123.55	119.20
25	DA	2686	G	N3-C2-N2	-6.21	115.55	119.90
25	BA	1027	A	N1-C2-N3	6.21	132.41	129.30
25	DA	139	G	C6-C5-N7	-6.21	126.67	130.40
1	AA	1501	C	C2-N3-C4	-6.21	116.80	119.90
25	BA	769	G	C8-N9-C4	6.21	108.88	106.40
25	BA	824	A	C2-N3-C4	-6.21	107.50	110.60
25	BA	1036	G	C8-N9-C4	6.21	108.88	106.40
25	BA	1156	A	N9-C4-C5	-6.21	103.32	105.80
25	BA	1392	A	N7-C8-N9	-6.21	110.70	113.80
25	BA	1626	G	C5-C6-O6	6.21	132.32	128.60
25	BA	437	G	C5-C6-O6	-6.21	124.88	128.60
25	BA	2438	U	C5-C6-N1	-6.21	119.60	122.70
1	AA	187	C	C5-C6-N1	6.21	124.10	121.00
25	BA	768	G	N7-C8-N9	6.20	116.20	113.10
25	BA	920	G	N1-C2-N2	-6.20	110.62	116.20
25	BA	1793	C	C4-C5-C6	6.20	120.50	117.40
25	BA	1824	G	C5-C6-O6	-6.20	124.88	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	12	U	C2-N1-C1'	6.20	125.14	117.70
25	DA	428	A	C2-N3-C4	6.20	113.70	110.60
25	DA	1981	A	C2-N3-C4	-6.20	107.50	110.60
25	DA	1997	G	N3-C4-N9	6.20	129.72	126.00
1	AA	1136	U	C6-N1-C2	-6.20	117.28	121.00
1	AA	1267	C	C6-N1-C2	-6.20	117.82	120.30
25	BA	363(E)	U	N3-C2-O2	6.20	126.54	122.20
1	AA	1188	A	C4-C5-N7	-6.20	107.60	110.70
1	AA	1267	C	C5-C6-N1	6.20	124.10	121.00
25	BA	99	U	C5-C4-O4	6.20	129.62	125.90
25	BA	1271	G	C2-N3-C4	-6.20	108.80	111.90
25	BA	1359	A	C4-C5-C6	-6.20	113.90	117.00
1	CA	473	G	N9-C4-C5	6.20	107.88	105.40
1	CA	1192	C	C6-N1-C2	-6.20	117.82	120.30
25	DA	503	A	N1-C2-N3	6.20	132.40	129.30
25	BA	444	C	N1-C2-O2	-6.20	115.18	118.90
25	BA	2301	C	C6-N1-C2	-6.20	117.82	120.30
26	BB	56	G	C4-N9-C1'	6.20	134.56	126.50
25	DA	975	C	N3-C4-C5	6.20	124.38	121.90
25	DA	1579	A	C6-C5-N7	-6.20	127.96	132.30
25	DA	2592	G	C8-N9-C4	-6.20	103.92	106.40
25	BA	334	C	C4-C5-C6	6.20	120.50	117.40
25	BA	587	C	C4-C5-C6	6.20	120.50	117.40
25	BA	2726	U	N3-C2-O2	6.20	126.54	122.20
25	BA	468	G	N1-C2-N3	6.19	127.62	123.90
25	BA	577	G	C8-N9-C4	6.19	108.88	106.40
25	BA	1570	A	N3-C4-C5	6.19	131.13	126.80
25	DA	1631	C	N1-C2-O2	-6.19	115.19	118.90
1	AA	1061	G	N3-C2-N2	-6.19	115.57	119.90
25	BA	746	A	C6-C5-N7	-6.19	127.97	132.30
25	BA	1342	A	N1-C6-N6	6.19	122.31	118.60
25	BA	1363	C	N1-C2-N3	6.19	123.53	119.20
25	BA	1674	G	C4-N9-C1'	6.19	134.55	126.50
25	BA	2053	G	N1-C2-N2	6.19	121.77	116.20
1	CA	299	G	C8-N9-C1'	-6.19	118.95	127.00
25	DA	127	A	N9-C4-C5	-6.19	103.32	105.80
25	DA	2894	G	C4-N9-C1'	6.19	134.55	126.50
25	BA	147	U	C4-C5-C6	6.19	123.41	119.70
25	BA	2758	A	C8-N9-C4	6.19	108.28	105.80
35	BP	41	ARG	NE-CZ-NH1	6.19	123.39	120.30
1	CA	416	G	N1-C6-O6	6.19	123.61	119.90
1	CA	858	G	N3-C4-N9	6.19	129.71	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	512	G	C4-C5-N7	-6.19	108.32	110.80
25	DA	271(M)	G	N1-C2-N2	-6.19	110.63	116.20
25	DA	1906	G	C5-C6-O6	-6.19	124.89	128.60
25	DA	2238	G	C5-C6-O6	-6.19	124.89	128.60
25	DA	2447	G	C4-N9-C1'	-6.19	118.46	126.50
25	DA	2765	A	N1-C2-N3	6.19	132.39	129.30
25	DA	127	A	C5-C6-N6	-6.19	118.75	123.70
25	DA	533	G	N1-C2-N2	-6.19	110.63	116.20
25	DA	807	U	N3-C4-O4	6.19	123.73	119.40
25	BA	474	G	N3-C4-N9	-6.18	122.29	126.00
25	BA	556	G	C6-C5-N7	-6.18	126.69	130.40
26	BB	106	G	C5-C6-O6	-6.18	124.89	128.60
1	CA	662	G	N3-C4-C5	-6.18	125.51	128.60
1	CA	1356	G	N7-C8-N9	6.18	116.19	113.10
25	DA	2577	A	N1-C6-N6	6.18	122.31	118.60
1	AA	1256	A	C8-N9-C4	-6.18	103.33	105.80
25	BA	178	G	N1-C2-N3	6.18	127.61	123.90
25	BA	1531	C	C2-N1-C1'	6.18	125.60	118.80
25	BA	2229	C	N3-C2-O2	-6.18	117.57	121.90
25	BA	2449	U	C6-N1-C2	6.18	124.71	121.00
25	BA	2511	U	C5-C6-N1	-6.18	119.61	122.70
25	DA	184	C	N1-C2-O2	-6.18	115.19	118.90
1	AA	129(A)	G	N3-C4-C5	-6.18	125.51	128.60
25	BA	1573	G	N3-C2-N2	-6.18	115.57	119.90
25	DA	900	A	C8-N9-C4	-6.18	103.33	105.80
25	DA	1437	C	N1-C2-O2	6.18	122.61	118.90
25	DA	1997	G	N3-C4-C5	-6.18	125.51	128.60
25	DA	2510	C	N3-C4-C5	-6.18	119.43	121.90
1	AA	513	C	C2-N1-C1'	6.18	125.60	118.80
25	BA	476	G	C4-C5-N7	-6.18	108.33	110.80
25	BA	481	G	N3-C4-N9	6.18	129.71	126.00
25	BA	1831	G	N7-C8-N9	6.18	116.19	113.10
25	BA	2040	C	C6-N1-C2	6.18	122.77	120.30
25	BA	2585	U	C5-C4-O4	-6.18	122.19	125.90
25	DA	2053	G	C5-C6-O6	-6.18	124.89	128.60
1	AA	190	U	C5-C6-N1	6.17	125.79	122.70
1	AA	1188	A	N1-C6-N6	-6.17	114.89	118.60
25	BA	498	G	C4-C5-N7	-6.17	108.33	110.80
25	BA	1018	C	C5-C4-N4	-6.17	115.88	120.20
25	BA	2027	G	C5-C6-N1	6.17	114.59	111.50
1	CA	300	A	N1-C6-N6	-6.17	114.89	118.60
25	DA	576	U	N3-C2-O2	6.17	126.52	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2057	A	N1-C2-N3	6.17	132.39	129.30
25	DA	2690	C	N1-C2-O2	-6.17	115.19	118.90
25	DA	2773	C	C4-C5-C6	6.17	120.49	117.40
1	CA	857	C	C6-N1-C2	6.17	122.77	120.30
25	BA	2620	C	C6-N1-C2	6.17	122.77	120.30
25	DA	2235	G	C5-N7-C8	-6.17	101.21	104.30
1	AA	572	A	C6-C5-N7	6.17	136.62	132.30
25	BA	530	G	C8-N9-C1'	6.17	135.02	127.00
27	BD	229	VAL	CB-CA-C	-6.17	99.68	111.40
25	DA	928	G	N3-C4-C5	-6.17	125.52	128.60
25	DA	1115	G	N3-C4-C5	6.17	131.69	128.60
23	AV	9	G	C6-C5-N7	6.17	134.10	130.40
25	BA	458	G	C5-N7-C8	6.17	107.38	104.30
25	BA	1245	G	C6-C5-N7	6.17	134.10	130.40
25	BA	2352	A	C2-N3-C4	-6.17	107.52	110.60
1	CA	833	U	C5-C4-O4	6.17	129.60	125.90
25	DA	455	C	N3-C4-N4	-6.17	113.68	118.00
25	DA	1663	C	C5-C6-N1	-6.17	117.92	121.00
1	AA	134	A	N1-C6-N6	-6.17	114.90	118.60
25	BA	2368	C	C4-C5-C6	6.17	120.48	117.40
25	BA	2762	G	N1-C2-N2	-6.17	110.65	116.20
26	BB	85	G	C6-C5-N7	-6.17	126.70	130.40
25	DA	90	U	C2-N1-C1'	6.17	125.10	117.70
1	AA	691	G	C8-N9-C4	6.16	108.86	106.40
25	BA	400	G	N1-C6-O6	6.16	123.60	119.90
25	BA	610	G	N1-C6-O6	-6.16	116.20	119.90
25	BA	2241	A	N3-C4-C5	-6.16	122.49	126.80
25	DA	1941	C	C2-N1-C1'	6.16	125.58	118.80
25	DA	2731	G	N9-C4-C5	-6.16	102.94	105.40
25	BA	474	G	C5-C6-O6	6.16	132.30	128.60
25	BA	1827	C	N1-C2-O2	6.16	122.60	118.90
25	BA	1977	A	C2-N3-C4	-6.16	107.52	110.60
25	BA	2570	G	N3-C4-N9	-6.16	122.30	126.00
25	DA	1022	G	C4-C5-N7	-6.16	108.33	110.80
25	BA	974	G	C6-N1-C2	-6.16	121.40	125.10
25	BA	2249	U	C2-N3-C4	6.16	130.70	127.00
25	BA	2319	G	C8-N9-C4	-6.16	103.94	106.40
25	BA	2578	G	N9-C4-C5	-6.16	102.94	105.40
25	BA	2823	A	C6-C5-N7	-6.16	127.99	132.30
26	BB	80	U	C6-N1-C2	-6.16	117.30	121.00
25	DA	975	C	C5-C6-N1	6.16	124.08	121.00
25	DA	1807	G	N7-C8-N9	-6.16	110.02	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2585	U	N3-C2-O2	-6.16	117.89	122.20
25	BA	271(M)	G	C4-N9-C1'	6.16	134.51	126.50
26	BB	41	U	C4-C5-C6	6.16	123.39	119.70
25	DA	13	A	N9-C4-C5	6.16	108.26	105.80
25	DA	1298	C	C6-N1-C2	-6.16	117.84	120.30
25	DA	2246	G	N1-C2-N3	6.16	127.59	123.90
25	BA	13	A	C8-N9-C4	-6.16	103.34	105.80
25	BA	1204	A	O4'-C1'-N9	6.16	113.13	108.20
25	BA	2471	C	N3-C2-O2	-6.16	117.59	121.90
25	BA	2725	A	C8-N9-C4	6.16	108.26	105.80
25	DA	139(A)	G	C5-C6-O6	-6.16	124.91	128.60
25	DA	533	G	C8-N9-C4	6.16	108.86	106.40
1	AA	756	C	C6-N1-C2	6.16	122.76	120.30
25	BA	430	G	C4-C5-C6	6.16	122.49	118.80
25	BA	706	A	N7-C8-N9	-6.16	110.72	113.80
25	DA	827	U	C6-N1-C2	6.16	124.69	121.00
25	BA	828	U	C4-C5-C6	6.15	123.39	119.70
25	BA	1616	A	C5-N7-C8	-6.15	100.82	103.90
25	DA	2437	U	N1-C2-O2	-6.15	118.49	122.80
25	BA	2447	G	C5-C6-O6	-6.15	124.91	128.60
25	BA	2824	C	C4-C5-C6	-6.15	114.32	117.40
26	BB	16	G	N9-C4-C5	-6.15	102.94	105.40
25	DA	788	A	C6-C5-N7	-6.15	127.99	132.30
25	DA	1348	G	N1-C6-O6	6.15	123.59	119.90
25	DA	2599	G	C6-C5-N7	6.15	134.09	130.40
1	AA	503	C	C6-N1-C2	-6.15	117.84	120.30
25	BA	820	A	N9-C4-C5	6.15	108.26	105.80
1	CA	266	G	C2-N3-C4	-6.15	108.83	111.90
25	DA	385	C	C2-N1-C1'	6.15	125.57	118.80
25	DA	2447	G	C8-N9-C1'	6.15	135.00	127.00
1	CA	1401	G	N1-C6-O6	6.15	123.59	119.90
25	BA	117	G	C6-C5-N7	-6.15	126.71	130.40
25	BA	793	A	N7-C8-N9	6.15	116.87	113.80
25	BA	1335	U	N1-C2-N3	6.15	118.59	114.90
25	BA	2054	A	C6-N1-C2	-6.15	114.91	118.60
25	BA	2462	U	C5-C6-N1	6.15	125.77	122.70
26	BB	91	C	C5-C6-N1	-6.15	117.93	121.00
25	DA	530	G	N3-C4-N9	-6.15	122.31	126.00
25	DA	565	C	N1-C2-O2	6.15	122.59	118.90
1	AA	189(B)	C	C6-N1-C2	-6.14	117.84	120.30
1	AA	792	A	N3-C4-C5	6.14	131.10	126.80
25	BA	19	C	C4-C5-C6	6.14	120.47	117.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1141	U	N3-C4-O4	-6.14	115.10	119.40
25	BA	1296	G	C5-C6-O6	-6.14	124.91	128.60
25	BA	1688	U	N1-C2-O2	-6.14	118.50	122.80
1	CA	907	A	C2-N3-C4	-6.14	107.53	110.60
1	CA	1299	A	C8-N9-C4	-6.14	103.34	105.80
25	DA	371	A	C8-N9-C4	6.14	108.26	105.80
23	AV	7	G	N3-C4-C5	6.14	131.67	128.60
25	BA	201	C	C6-N1-C2	6.14	122.76	120.30
25	BA	727	A	C4-C5-N7	6.14	113.77	110.70
25	BA	1801	G	C5-C6-O6	-6.14	124.92	128.60
26	BB	56	G	C8-N9-C1'	-6.14	119.01	127.00
1	CA	509	A	C8-N9-C4	-6.14	103.34	105.80
25	DA	58	G	C4-N9-C1'	6.14	134.49	126.50
25	BA	62	C	C6-N1-C2	6.14	122.76	120.30
25	BA	205	G	C4-C5-N7	6.14	113.26	110.80
25	BA	495	G	N1-C6-O6	6.14	123.58	119.90
25	BA	1973	G	N1-C2-N3	6.14	127.58	123.90
25	BA	2645	G	N7-C8-N9	6.14	116.17	113.10
25	BA	737	C	N3-C2-O2	6.14	126.20	121.90
25	BA	1706	U	N3-C2-O2	-6.14	117.90	122.20
25	BA	2249	U	N3-C4-C5	-6.14	110.92	114.60
25	BA	65	C	N3-C4-C5	-6.14	119.44	121.90
25	BA	1823	G	C6-C5-N7	-6.14	126.72	130.40
25	BA	2372	G	N3-C2-N2	-6.14	115.60	119.90
25	DA	113	G	N3-C4-N9	-6.14	122.32	126.00
25	DA	849	A	N1-C6-N6	-6.14	114.92	118.60
25	BA	992	C	C2-N3-C4	-6.13	116.83	119.90
25	BA	2762	G	N1-C2-N3	6.13	127.58	123.90
1	AA	1519	A	N9-C4-C5	6.13	108.25	105.80
1	AA	22	G	C5-C6-O6	-6.13	124.92	128.60
1	AA	928	G	C5-C6-O6	-6.13	124.92	128.60
25	BA	28	A	C2-N3-C4	6.13	113.67	110.60
25	BA	555	U	C6-N1-C2	6.13	124.68	121.00
25	BA	1666	G	C5-C6-O6	-6.13	124.92	128.60
25	BA	2283	C	N3-C2-O2	6.13	126.19	121.90
25	BA	2603	G	N1-C6-O6	6.13	123.58	119.90
25	DA	502	A	C8-N9-C4	6.13	108.25	105.80
1	AA	1236	A	N9-C4-C5	-6.13	103.35	105.80
25	BA	994	C	C5-C6-N1	-6.13	117.94	121.00
1	AA	572	A	C4-N9-C1'	-6.13	115.27	126.30
25	BA	2505	G	N1-C2-N3	6.13	127.58	123.90
25	DA	139	G	N1-C6-O6	6.13	123.58	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2185	C	C5-C6-N1	6.13	124.06	121.00
25	BA	973	A	C6-N1-C2	-6.13	114.92	118.60
25	BA	1313	U	C6-N1-C2	-6.13	117.32	121.00
25	BA	1423	G	N3-C2-N2	-6.13	115.61	119.90
25	BA	1559	G	C8-N9-C4	6.13	108.85	106.40
25	DA	962	G	N7-C8-N9	6.13	116.16	113.10
25	DA	2440	C	C2-N1-C1'	-6.13	112.06	118.80
25	BA	139	G	C5-C6-O6	-6.12	124.93	128.60
25	BA	1417	C	C5-C6-N1	-6.12	117.94	121.00
1	CA	912	C	C6-N1-C2	6.12	122.75	120.30
25	DA	1390	U	C6-N1-C2	-6.12	117.33	121.00
25	DA	1966	A	C6-C5-N7	6.12	136.59	132.30
1	CA	865	A	C6-C5-N7	-6.12	128.01	132.30
25	DA	2423	U	C6-N1-C2	6.12	124.67	121.00
25	DA	2505	G	C8-N9-C4	-6.12	103.95	106.40
25	BA	531	C	N3-C4-N4	6.12	122.28	118.00
25	BA	570	G	C4-C5-N7	-6.12	108.35	110.80
25	BA	847	U	C6-N1-C2	6.12	124.67	121.00
25	BA	1156	A	C5-N7-C8	-6.12	100.84	103.90
25	BA	1698	A	N3-C4-C5	6.12	131.08	126.80
26	BB	89	G	C4-C5-C6	6.12	122.47	118.80
25	DA	2426	A	N1-C6-N6	6.12	122.27	118.60
25	DA	2644	G	N9-C4-C5	6.12	107.85	105.40
25	BA	1401	G	C8-N9-C4	-6.12	103.95	106.40
25	BA	2441	C	C5-C4-N4	6.12	124.48	120.20
25	DA	1758	G	C4-C5-N7	-6.12	108.35	110.80
25	DA	2103	C	C2-N3-C4	6.12	122.96	119.90
25	BA	228	A	N3-C4-C5	6.11	131.08	126.80
25	BA	1962	C	C6-N1-C2	-6.11	117.85	120.30
25	BA	2466	C	C5-C4-N4	-6.11	115.92	120.20
25	BA	2615	U	C2-N3-C4	-6.11	123.33	127.00
1	CA	721	G	N1-C6-O6	6.11	123.57	119.90
1	CA	1512	U	N1-C2-O2	-6.11	118.52	122.80
25	DA	614	U	N3-C2-O2	-6.11	117.92	122.20
25	BA	833	U	N1-C2-N3	6.11	118.57	114.90
25	BA	185	U	N1-C2-N3	6.11	118.57	114.90
25	BA	463	G	N1-C2-N2	-6.11	110.70	116.20
25	BA	944	G	C4-N9-C1'	6.11	134.44	126.50
25	BA	1428	C	N1-C2-O2	-6.11	115.23	118.90
1	CA	1274	G	N3-C4-N9	6.11	129.67	126.00
25	DA	733	G	N3-C4-N9	6.11	129.66	126.00
1	AA	1087	G	C8-N9-C4	-6.11	103.96	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	38	A	C4-C5-N7	-6.11	107.65	110.70
25	BA	737	C	C6-N1-C2	6.11	122.74	120.30
25	BA	1719	G	C8-N9-C4	-6.11	103.96	106.40
1	CA	360	A	N1-C6-N6	-6.11	114.94	118.60
25	BA	652(T)	C	C2-N3-C4	6.10	122.95	119.90
25	BA	1565	C	N3-C4-C5	6.10	124.34	121.90
25	BA	1767	C	C4-C5-C6	6.10	120.45	117.40
25	DA	893	C	N1-C2-O2	6.10	122.56	118.90
1	AA	513	C	C5-C4-N4	-6.10	115.93	120.20
25	BA	128	C	N3-C4-C5	6.10	124.34	121.90
25	BA	1558	A	C5-N7-C8	-6.10	100.85	103.90
25	BA	1579	A	C5-C6-N6	-6.10	118.82	123.70
25	BA	2546	U	C4-C5-C6	6.10	123.36	119.70
25	DA	754	C	N3-C4-N4	6.10	122.27	118.00
25	DA	574	C	C5-C4-N4	6.10	124.47	120.20
1	AA	1272	G	C8-N9-C4	-6.10	103.96	106.40
25	BA	793	A	C8-N9-C4	-6.10	103.36	105.80
25	BA	1135	C	C5-C6-N1	-6.10	117.95	121.00
25	BA	2350	C	N1-C2-N3	-6.10	114.93	119.20
1	AA	7	G	C4-N9-C1'	-6.10	118.57	126.50
1	AA	548	G	N1-C6-O6	6.10	123.56	119.90
25	BA	185	U	C5-C6-N1	-6.10	119.65	122.70
25	DA	528	A	N1-C6-N6	6.10	122.26	118.60
25	BA	112	U	N3-C4-O4	6.10	123.67	119.40
1	AA	1083	U	N1-C2-N3	6.09	118.56	114.90
25	BA	1281	G	C5-C6-O6	-6.09	124.94	128.60
25	DA	1008	C	N1-C2-O2	6.09	122.56	118.90
25	DA	1574	C	N3-C4-C5	6.09	124.34	121.90
25	DA	1831	G	C4-N9-C1'	6.09	134.42	126.50
1	AA	22	G	N9-C4-C5	-6.09	102.96	105.40
1	CA	1502	A	C2-N3-C4	-6.09	107.55	110.60
25	DA	2430	A	N1-C6-N6	6.09	122.26	118.60
25	BA	644	A	N9-C4-C5	6.09	108.24	105.80
25	BA	812	C	C2-N3-C4	-6.09	116.86	119.90
1	CA	530	G	C4-N9-C1'	6.09	134.42	126.50
1	CA	718	G	C4-N9-C1'	6.09	134.42	126.50
25	DA	1142(A)	A	C5-N7-C8	-6.09	100.85	103.90
25	BA	972	G	N1-C6-O6	-6.09	116.25	119.90
36	BQ	2	LEU	CA-CB-CG	6.09	129.30	115.30
25	DA	305	U	N1-C2-O2	-6.09	118.54	122.80
25	DA	1445(A)	C	C6-N1-C2	-6.09	117.86	120.30
1	AA	681	C	C6-N1-C2	-6.09	117.86	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2575	C	C4-C5-C6	6.09	120.44	117.40
25	DA	828	U	C5-C6-N1	-6.09	119.66	122.70
25	BA	1311	G	N9-C4-C5	6.09	107.83	105.40
1	CA	865	A	C2-N3-C4	-6.09	107.56	110.60
25	DA	1695	G	C6-C5-N7	-6.09	126.75	130.40
25	BA	706	A	N1-C6-N6	6.08	122.25	118.60
1	CA	317	G	N7-C8-N9	6.08	116.14	113.10
25	BA	2820	A	C5-C6-N6	-6.08	118.83	123.70
25	DA	668	G	N3-C4-C5	6.08	131.64	128.60
25	DA	1908	C	N3-C4-C5	-6.08	119.47	121.90
1	AA	400	C	C6-N1-C2	-6.08	117.87	120.30
1	AA	741	G	C2-N3-C4	-6.08	108.86	111.90
1	AA	741	G	C8-N9-C4	6.08	108.83	106.40
25	BA	186	G	C5-C6-O6	-6.08	124.95	128.60
25	BA	458	G	N9-C4-C5	6.08	107.83	105.40
25	BA	1378	A	N3-C4-N9	-6.08	122.53	127.40
25	BA	1815	A	N1-C6-N6	-6.08	114.95	118.60
25	BA	2231	C	C4-C5-C6	6.08	120.44	117.40
25	BA	2737	G	N3-C2-N2	-6.08	115.64	119.90
1	AA	266	G	C8-N9-C1'	-6.08	119.10	127.00
1	CA	1225	A	C8-N9-C4	-6.08	103.37	105.80
25	DA	1923	U	C6-N1-C2	-6.08	117.35	121.00
25	DA	2492	U	N3-C2-O2	-6.08	117.94	122.20
25	BA	184	C	C6-N1-C2	-6.08	117.87	120.30
25	BA	824	A	N1-C2-N3	6.08	132.34	129.30
25	BA	941	A	N1-C2-N3	6.08	132.34	129.30
25	DA	675	A	N1-C6-N6	6.08	122.25	118.60
25	DA	912	C	C5-C6-N1	6.08	124.04	121.00
25	BA	621	A	N1-C6-N6	-6.08	114.95	118.60
25	BA	962	G	N1-C2-N3	6.08	127.55	123.90
25	BA	1308	A	N1-C6-N6	-6.08	114.95	118.60
25	BA	2543	G	C5-C6-O6	6.08	132.25	128.60
25	BA	2588	G	N1-C6-O6	-6.08	116.25	119.90
1	CA	1312	G	C8-N9-C4	-6.08	103.97	106.40
25	DA	2049	G	C5-N7-C8	-6.08	101.26	104.30
25	DA	2104	G	C4-C5-N7	6.08	113.23	110.80
25	BA	1364	G	N1-C2-N2	-6.08	110.73	116.20
25	BA	1430	C	C4-C5-C6	6.08	120.44	117.40
25	BA	1586	A	C6-C5-N7	-6.08	128.05	132.30
25	BA	1760	A	C6-C5-N7	-6.08	128.05	132.30
25	BA	2069	G	N1-C2-N3	6.08	127.55	123.90
25	BA	2235	G	C2-N3-C4	-6.08	108.86	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1350	C	C5-C4-N4	-6.07	115.95	120.20
25	BA	823	G	C2-N3-C4	-6.07	108.86	111.90
25	DA	2318	G	C6-C5-N7	-6.07	126.76	130.40
25	DA	2647	U	C2-N1-C1'	-6.07	110.41	117.70
1	AA	721	G	N3-C4-N9	6.07	129.64	126.00
25	BA	1124	C	N3-C4-C5	6.07	124.33	121.90
1	CA	1063	C	C6-N1-C2	-6.07	117.87	120.30
25	DA	2439	A	N7-C8-N9	6.07	116.83	113.80
25	BA	139(A)	G	C6-N1-C2	-6.07	121.46	125.10
25	BA	518	G	N3-C4-C5	-6.07	125.57	128.60
1	CA	865	A	N7-C8-N9	6.07	116.83	113.80
25	BA	400	G	C8-N9-C4	-6.07	103.97	106.40
25	BA	1548	C	C2-N1-C1'	6.07	125.47	118.80
25	BA	2307	G	N3-C4-N9	6.07	129.64	126.00
25	BA	2582	G	C8-N9-C4	-6.07	103.97	106.40
1	AA	505	G	C4-N9-C1'	6.07	134.38	126.50
25	BA	1410	G	C5-C6-O6	-6.07	124.96	128.60
25	DA	179	G	N1-C6-O6	6.07	123.54	119.90
25	DA	1332	G	N1-C6-O6	6.07	123.54	119.90
25	BA	676	A	O4'-C1'-N9	6.06	113.05	108.20
25	BA	1408	C	C5-C4-N4	-6.06	115.95	120.20
25	BA	2595	G	N1-C6-O6	-6.06	116.26	119.90
25	BA	686	G	N3-C2-N2	6.06	124.14	119.90
25	BA	1450(A)	C	C2-N1-C1'	-6.06	112.13	118.80
25	BA	2289	G	C2-N3-C4	6.06	114.93	111.90
25	BA	2742	C	C5-C6-N1	-6.06	117.97	121.00
1	CA	1176	A	C8-N9-C4	-6.06	103.38	105.80
1	CA	1300	G	C6-C5-N7	6.06	134.04	130.40
25	BA	626	U	N3-C4-C5	-6.06	110.96	114.60
25	BA	1857	G	C4-N9-C1'	6.06	134.38	126.50
1	CA	1414	U	N1-C2-O2	6.06	127.04	122.80
23	CV	13	C	C6-N1-C2	-6.06	117.88	120.30
25	DA	1647	G	C8-N9-C4	6.06	108.82	106.40
25	DA	2623	G	N1-C6-O6	6.06	123.54	119.90
25	DA	2686	G	N3-C4-N9	-6.06	122.36	126.00
25	BA	259	G	C5-C6-O6	-6.06	124.97	128.60
25	BA	969	U	C5-C6-N1	-6.06	119.67	122.70
25	BA	2040	C	N1-C2-N3	-6.06	114.96	119.20
25	BA	2767	C	C2-N3-C4	-6.06	116.87	119.90
1	CA	1502	A	C6-C5-N7	-6.06	128.06	132.30
1	AA	96	U	C2-N3-C4	6.05	130.63	127.00
25	BA	264	C	N3-C4-C5	-6.05	119.48	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2562	U	C5-C6-N1	-6.05	119.67	122.70
1	CA	40	C	N3-C2-O2	-6.05	117.66	121.90
1	CA	365	U	C5-C6-N1	-6.05	119.67	122.70
25	DA	747	U	N3-C4-O4	6.05	123.64	119.40
25	BA	1557	C	C5-C6-N1	-6.05	117.97	121.00
1	AA	820	U	C2-N1-C1'	-6.05	110.44	117.70
1	AA	858	G	N3-C4-N9	6.05	129.63	126.00
25	BA	1415	U	N3-C4-O4	-6.05	115.16	119.40
25	BA	2605	U	C6-N1-C2	-6.05	117.37	121.00
25	BA	2686	G	N1-C6-O6	6.05	123.53	119.90
26	DB	103	G	N1-C6-O6	6.05	123.53	119.90
25	BA	860	U	N3-C4-C5	6.05	118.23	114.60
25	BA	1295	C	C4-C5-C6	-6.05	114.38	117.40
25	DA	735	A	N7-C8-N9	-6.05	110.78	113.80
1	CA	881	G	N1-C6-O6	6.05	123.53	119.90
25	BA	622	G	N9-C4-C5	-6.05	102.98	105.40
25	BA	1029	A	N1-C6-N6	6.05	122.23	118.60
25	BA	1137	G	N1-C6-O6	6.05	123.53	119.90
25	BA	2012	G	N9-C4-C5	-6.05	102.98	105.40
25	BA	2227	A	C5-C6-N6	6.05	128.54	123.70
1	CA	504	C	C5-C6-N1	6.05	124.02	121.00
25	BA	178	G	C2-N3-C4	-6.04	108.88	111.90
25	BA	1616	A	N1-C6-N6	6.04	122.23	118.60
25	BA	523	C	C2-N3-C4	-6.04	116.88	119.90
25	BA	1667	G	C8-N9-C4	6.04	108.82	106.40
25	BA	1799	G	N3-C4-C5	-6.04	125.58	128.60
25	BA	1899	G	N1-C2-N3	6.04	127.53	123.90
25	BA	1908	C	C6-N1-C2	-6.04	117.88	120.30
1	CA	522	C	N1-C2-O2	6.04	122.53	118.90
25	DA	752	A	N7-C8-N9	6.04	116.82	113.80
25	DA	1561	G	C5-C6-O6	-6.04	124.97	128.60
25	DA	1834	U	N3-C2-O2	-6.04	117.97	122.20
25	BA	1798	U	N3-C4-O4	-6.04	115.17	119.40
25	BA	2069	G	N3-C2-N2	-6.04	115.67	119.90
25	BA	658	C	C2-N3-C4	-6.04	116.88	119.90
25	BA	1252	G	C8-N9-C4	6.04	108.82	106.40
25	BA	1331	A	C6-N1-C2	-6.04	114.98	118.60
25	BA	2636	U	C5-C6-N1	-6.04	119.68	122.70
1	AA	541	G	C4-C5-N7	-6.04	108.38	110.80
15	AO	67	LEU	CA-CB-CG	-6.04	101.41	115.30
25	BA	657	U	C5-C4-O4	6.04	129.52	125.90
25	BA	1320	C	N3-C4-C5	6.04	124.32	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1609	A	N7-C8-N9	-6.04	110.78	113.80
25	DA	50	U	N1-C2-O2	6.04	127.03	122.80
25	DA	696	G	N7-C8-N9	-6.04	110.08	113.10
1	AA	1406	U	C2-N3-C4	-6.04	123.38	127.00
25	BA	473	G	N7-C8-N9	-6.04	110.08	113.10
25	BA	1636	C	C4-C5-C6	6.04	120.42	117.40
25	BA	2405	G	N3-C4-C5	-6.04	125.58	128.60
1	CA	343	U	N3-C2-O2	-6.04	117.97	122.20
1	AA	271	C	C6-N1-C2	-6.04	117.89	120.30
1	AA	925	G	C5-C6-O6	-6.04	124.98	128.60
23	AV	12	G	N1-C6-O6	-6.04	116.28	119.90
25	BA	1389	G	C8-N9-C4	6.04	108.81	106.40
1	CA	565	U	N3-C4-O4	6.04	123.62	119.40
25	DA	856	C	C5-C6-N1	6.04	124.02	121.00
25	DA	2361	A	C2-N3-C4	-6.04	107.58	110.60
25	BA	566	U	N3-C2-O2	6.03	126.42	122.20
25	BA	2454	G	C5-C6-N1	6.03	114.52	111.50
25	BA	2542	A	N1-C6-N6	6.03	122.22	118.60
25	DA	1313	U	N3-C4-C5	-6.03	110.98	114.60
25	BA	1368	G	N3-C2-N2	-6.03	115.68	119.90
1	CA	1241	G	C8-N9-C4	6.03	108.81	106.40
25	DA	809	G	C8-N9-C4	-6.03	103.99	106.40
25	BA	180	G	C4-C5-N7	6.03	113.21	110.80
27	BD	275	LYS	N-CA-C	-6.03	94.72	111.00
25	BA	2771	C	C2-N3-C4	-6.03	116.89	119.90
35	BP	21	ARG	NE-CZ-NH2	-6.03	117.29	120.30
25	BA	850	C	C5-C4-N4	-6.03	115.98	120.20
25	BA	1266	G	C8-N9-C4	6.03	108.81	106.40
25	BA	1862	G	N1-C6-O6	-6.03	116.28	119.90
25	DA	390	A	N1-C2-N3	6.03	132.31	129.30
25	DA	1947	C	N3-C4-C5	6.03	124.31	121.90
25	BA	1681	G	N3-C4-N9	-6.03	122.39	126.00
25	BA	2361	A	N1-C2-N3	6.03	132.31	129.30
25	BA	2494	G	C2-N3-C4	-6.03	108.89	111.90
1	CA	292	G	C6-C5-N7	-6.03	126.78	130.40
25	DA	1277	G	C8-N9-C4	6.03	108.81	106.40
25	DA	2678	C	C6-N1-C2	6.03	122.71	120.30
25	BA	2287	A	N3-C4-N9	-6.02	122.58	127.40
1	AA	706	A	C8-N9-C4	6.02	108.21	105.80
25	BA	1907	G	N3-C2-N2	-6.02	115.69	119.90
25	BA	1970	A	N3-C4-C5	-6.02	122.58	126.80
25	BA	971	C	N1-C2-O2	-6.02	115.29	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1038	C	N1-C2-O2	6.02	122.51	118.90
25	DA	838	C	N3-C4-N4	-6.02	113.78	118.00
25	DA	2412	A	C5-C6-N6	6.02	128.52	123.70
1	AA	738	C	C5-C6-N1	6.02	124.01	121.00
25	BA	205	G	C5-C6-O6	-6.02	124.99	128.60
25	DA	1558	A	P-O3'-C3'	6.02	126.92	119.70
25	DA	2399	G	C8-N9-C4	-6.02	103.99	106.40
25	DA	2498	C	C5-C6-N1	-6.02	117.99	121.00
25	BA	735	A	C8-N9-C4	6.02	108.21	105.80
25	BA	1311	G	C4-C5-N7	-6.02	108.39	110.80
25	DA	2755	C	N1-C2-O2	6.02	122.51	118.90
25	BA	271(Y)	U	N3-C2-O2	-6.02	117.99	122.20
25	BA	600	G	C4-N9-C1'	-6.02	118.68	126.50
25	DA	480	A	C2-N3-C4	6.02	113.61	110.60
1	AA	693	G	C4-C5-N7	6.01	113.20	110.80
1	AA	1149	C	C6-N1-C2	-6.01	117.89	120.30
23	AV	9	G	C8-N9-C4	-6.01	103.99	106.40
25	BA	1545	A	C2-N3-C4	-6.01	107.59	110.60
25	BA	2434	A	N1-C2-N3	6.01	132.31	129.30
26	DB	14	U	N3-C2-O2	-6.01	117.99	122.20
25	BA	2771	C	C5-C6-N1	-6.01	118.00	121.00
26	BB	53	A	C6-C5-N7	-6.01	128.09	132.30
25	DA	1568	G	C5-C6-O6	-6.01	124.99	128.60
25	DA	1845	G	C8-N9-C4	-6.01	104.00	106.40
25	DA	1987	G	N1-C6-O6	6.01	123.51	119.90
25	DA	2238	G	N1-C2-N2	6.01	121.61	116.20
25	BA	2029	G	N9-C4-C5	-6.01	103.00	105.40
25	BA	2286	A	C4-C5-N7	6.01	113.70	110.70
25	BA	2454	G	N9-C4-C5	6.01	107.80	105.40
25	BA	2559	C	N3-C4-C5	6.01	124.30	121.90
25	DA	2647	U	C5-C6-N1	-6.01	119.70	122.70
25	DA	1826	G	N3-C4-C5	-6.01	125.60	128.60
1	AA	858	G	C4-N9-C1'	6.00	134.31	126.50
25	BA	259	G	N9-C4-C5	-6.00	103.00	105.40
25	DA	1338	G	C6-C5-N7	-6.00	126.80	130.40
25	BA	413	C	N1-C2-O2	-6.00	115.30	118.90
25	BA	1857	G	C6-C5-N7	-6.00	126.80	130.40
25	DA	827	U	N3-C2-O2	6.00	126.40	122.20
26	DB	43	C	N3-C2-O2	-6.00	117.70	121.90
25	BA	64	A	N1-C6-N6	-6.00	115.00	118.60
25	BA	1259	G	C2-N3-C4	-6.00	108.90	111.90
25	BA	2864	G	C4-C5-N7	6.00	113.20	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2892	A	C8-N9-C4	-6.00	103.40	105.80
25	BA	1802	A	C5-C6-N1	6.00	120.70	117.70
1	AA	59	A	C8-N9-C4	-6.00	103.40	105.80
25	BA	1857	G	N3-C4-N9	6.00	129.60	126.00
25	BA	2848	G	C4-C5-C6	6.00	122.40	118.80
1	CA	865	A	C5-N7-C8	-6.00	100.90	103.90
25	DA	1830	C	N1-C2-N3	-6.00	115.00	119.20
1	AA	916	G	C4-N9-C1'	6.00	134.30	126.50
16	AP	51	VAL	N-CA-C	-6.00	94.81	111.00
25	BA	216	A	C5-C6-N1	-6.00	114.70	117.70
25	BA	1562	A	C5-N7-C8	-6.00	100.90	103.90
1	CA	589	C	C6-N1-C2	-6.00	117.90	120.30
25	BA	2738	A	N7-C8-N9	-6.00	110.80	113.80
25	DA	1769	G	N3-C2-N2	-6.00	115.70	119.90
25	BA	561	G	C5-C6-N1	5.99	114.50	111.50
25	BA	2021	C	N1-C2-O2	5.99	122.50	118.90
25	BA	2629	A	C2-N3-C4	-5.99	107.60	110.60
26	BB	86	G	N9-C4-C5	-5.99	103.00	105.40
1	CA	1081	G	N9-C4-C5	-5.99	103.00	105.40
25	DA	2473	U	N3-C2-O2	-5.99	118.00	122.20
25	BA	646	A	C8-N9-C4	-5.99	103.40	105.80
25	BA	652(B)	A	N1-C6-N6	-5.99	115.01	118.60
25	BA	1369	G	N1-C6-O6	5.99	123.49	119.90
25	BA	2427	C	N3-C2-O2	5.99	126.09	121.90
25	DA	201	C	C5-C6-N1	-5.99	118.00	121.00
25	DA	856	C	N3-C4-C5	-5.99	119.50	121.90
25	DA	1987	G	N3-C4-C5	5.99	131.60	128.60
1	AA	541	G	C4-N9-C1'	-5.99	118.72	126.50
25	BA	652(F)	G	C6-N1-C2	5.99	128.69	125.10
25	BA	699	A	N1-C6-N6	5.99	122.19	118.60
25	BA	905	U	C2-N3-C4	-5.99	123.41	127.00
25	BA	915	C	N3-C2-O2	-5.99	117.71	121.90
25	BA	1577	C	N3-C4-C5	-5.99	119.50	121.90
25	BA	1678	G	C6-N1-C2	-5.99	121.51	125.10
25	BA	2746	U	N3-C4-O4	-5.99	115.21	119.40
25	DA	1204	A	C5-C6-N1	-5.99	114.71	117.70
35	DP	45	LEU	N-CA-C	5.99	127.17	111.00
25	BA	83	G	C8-N9-C4	5.99	108.80	106.40
1	AA	1074	G	C5-C6-N1	-5.99	108.51	111.50
1	AA	1290	G	C4-N9-C1'	5.99	134.28	126.50
25	BA	502	A	N1-C6-N6	-5.99	115.01	118.60
25	BA	932	G	N9-C4-C5	5.99	107.79	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1721	G	N3-C2-N2	-5.99	115.71	119.90
26	BB	18	G	N1-C2-N2	5.99	121.59	116.20
25	BA	774	A	N7-C8-N9	5.98	116.79	113.80
25	DA	2051	A	N1-C2-N3	5.98	132.29	129.30
1	AA	346	G	C8-N9-C4	-5.98	104.01	106.40
25	BA	74	A	C8-N9-C4	-5.98	103.41	105.80
25	BA	206	U	C5-C4-O4	-5.98	122.31	125.90
25	BA	271(O)	C	N3-C4-C5	5.98	124.29	121.90
25	BA	1377	G	N3-C4-C5	-5.98	125.61	128.60
25	BA	1569	A	C8-N9-C4	-5.98	103.41	105.80
25	BA	2559	C	C2-N3-C4	-5.98	116.91	119.90
26	BB	113	G	N3-C4-N9	5.98	129.59	126.00
25	DA	734	A	C2-N3-C4	-5.98	107.61	110.60
25	DA	2104	G	N9-C4-C5	-5.98	103.01	105.40
25	BA	2571	C	N1-C2-O2	-5.98	115.31	118.90
25	DA	1698	A	N7-C8-N9	5.98	116.79	113.80
25	DA	2654	A	N1-C6-N6	5.98	122.19	118.60
1	AA	1272	G	N7-C8-N9	5.98	116.09	113.10
25	BA	206	U	C2-N3-C4	-5.98	123.41	127.00
25	BA	2092	U	N3-C2-O2	-5.98	118.02	122.20
25	BA	2564	A	N1-C6-N6	-5.98	115.01	118.60
25	BA	2607	G	C6-N1-C2	-5.98	121.51	125.10
25	BA	2803	C	C6-N1-C2	-5.98	117.91	120.30
25	DA	1607	C	C6-N1-C1'	-5.98	113.63	120.80
25	DA	1614	A	N1-C6-N6	-5.98	115.01	118.60
25	DA	1653	G	P-O3'-C3'	5.98	126.87	119.70
25	BA	826	U	C4-C5-C6	5.97	123.28	119.70
25	BA	1369	G	C5-C6-N1	-5.97	108.51	111.50
25	BA	1769	G	C4-C5-C6	5.97	122.38	118.80
25	BA	2225	A	C5-C6-N6	-5.97	118.92	123.70
25	BA	2307	G	C8-N9-C1'	-5.97	119.23	127.00
25	BA	2755	C	C4-C5-C6	-5.97	114.41	117.40
25	DA	1758	G	C5-C6-O6	5.97	132.18	128.60
25	BA	530	G	N1-C6-O6	-5.97	116.32	119.90
25	DA	576	U	N1-C2-O2	-5.97	118.62	122.80
25	DA	645	C	N1-C2-O2	5.97	122.48	118.90
25	DA	2447	G	C4-C5-N7	5.97	113.19	110.80
25	BA	1696	G	C5-C6-N1	5.97	114.48	111.50
1	CA	963	G	N3-C4-C5	-5.97	125.61	128.60
1	AA	1506	U	N3-C2-O2	5.97	126.38	122.20
25	BA	248	G	C2-N3-C4	-5.97	108.92	111.90
25	BA	2410	G	C8-N9-C4	-5.97	104.01	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2368	C	N3-C4-C5	-5.97	119.51	121.90
33	BN	23	LEU	C-N-CA	-5.97	109.77	122.30
25	BA	724	U	C4-C5-C6	5.97	123.28	119.70
25	BA	1001	A	C8-N9-C4	5.97	108.19	105.80
25	BA	1364	G	C5-C6-O6	5.97	132.18	128.60
25	BA	1531	C	N1-C2-O2	5.97	122.48	118.90
25	BA	1880	C	C6-N1-C2	-5.97	117.91	120.30
26	BB	61	G	N1-C6-O6	5.97	123.48	119.90
25	BA	2413	G	N7-C8-N9	-5.96	110.12	113.10
1	CA	915	A	N7-C8-N9	-5.96	110.82	113.80
1	CA	940	C	C5-C6-N1	5.96	123.98	121.00
25	BA	591	C	C4-C5-C6	5.96	120.38	117.40
25	BA	699	A	C4-C5-N7	5.96	113.68	110.70
25	BA	1709	U	C2-N1-C1'	-5.96	110.55	117.70
25	BA	2582	G	C5-C6-O6	5.96	132.18	128.60
26	BB	81	G	C6-C5-N7	-5.96	126.82	130.40
1	CA	851	G	N3-C4-C5	-5.96	125.62	128.60
25	DA	733	G	C5-C6-O6	-5.96	125.02	128.60
25	DA	748	G	N3-C4-C5	-5.96	125.62	128.60
25	BA	255	A	C6-C5-N7	-5.96	128.13	132.30
25	BA	1501	C	N3-C2-O2	5.96	126.07	121.90
26	BB	46	A	N1-C6-N6	-5.96	115.02	118.60
1	AA	505	G	C6-C5-N7	-5.96	126.82	130.40
1	AA	790	A	C2-N3-C4	-5.96	107.62	110.60
25	BA	648	G	N1-C2-N3	5.96	127.47	123.90
25	BA	1213	A	C8-N9-C4	-5.96	103.42	105.80
25	BA	1405	U	C2-N3-C4	-5.96	123.42	127.00
25	BA	1989	G	C8-N9-C4	5.96	108.78	106.40
25	BA	2073	C	C5-C6-N1	-5.96	118.02	121.00
25	BA	2489	G	N1-C2-N3	5.96	127.48	123.90
1	CA	545	C	C5-C6-N1	-5.96	118.02	121.00
25	DA	141	A	C5-C6-N1	-5.96	114.72	117.70
25	BA	636	G	N1-C6-O6	5.96	123.47	119.90
25	BA	2184	G	C6-N1-C2	5.96	128.67	125.10
25	BA	2643	G	C5-C6-N1	5.96	114.48	111.50
25	DA	2281	C	N3-C4-C5	-5.96	119.52	121.90
25	DA	2598	A	C5-C6-N6	-5.96	118.94	123.70
25	DA	933	A	C6-C5-N7	-5.96	128.13	132.30
1	AA	243	A	N7-C8-N9	5.95	116.78	113.80
1	AA	1518	A	C2-N3-C4	-5.95	107.62	110.60
25	BA	1827	C	C6-N1-C2	-5.95	117.92	120.30
25	BA	2007	C	N3-C4-C5	-5.95	119.52	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	20	C	C5-C4-N4	-5.95	116.03	120.20
25	DA	271(F)	C	C6-N1-C2	-5.95	117.92	120.30
25	BA	2550	G	C5-C6-O6	-5.95	125.03	128.60
25	DA	849	A	C5-C6-N6	5.95	128.46	123.70
25	DA	2551	C	N3-C2-O2	-5.95	117.73	121.90
25	BA	689	A	N9-C4-C5	5.95	108.18	105.80
25	BA	1338	G	C4-C5-N7	5.95	113.18	110.80
25	BA	2026	C	C5-C6-N1	-5.95	118.03	121.00
25	BA	2513	G	N1-C6-O6	5.95	123.47	119.90
1	CA	189(D)	C	C5-C6-N1	5.95	123.97	121.00
25	BA	947	G	N1-C6-O6	5.95	123.47	119.90
25	BA	1131	G	N3-C2-N2	5.95	124.06	119.90
25	BA	1257	C	N3-C4-C5	-5.95	119.52	121.90
25	BA	1296	G	C6-N1-C2	-5.95	121.53	125.10
25	BA	1479	G	N3-C2-N2	-5.95	115.74	119.90
25	BA	2225	A	C2-N3-C4	5.95	113.57	110.60
26	BB	75	G	C4-N9-C1'	5.95	134.23	126.50
25	DA	2876	G	C6-C5-N7	-5.95	126.83	130.40
25	BA	699	A	C5-N7-C8	-5.95	100.93	103.90
25	BA	2002	G	N3-C4-N9	5.95	129.57	126.00
25	BA	2077	A	C2-N3-C4	5.95	113.57	110.60
25	DA	1616	A	C5-N7-C8	-5.95	100.93	103.90
25	BA	513	A	C4-C5-C6	5.94	119.97	117.00
25	DA	1235	G	N3-C4-C5	-5.94	125.63	128.60
25	BA	16	G	C6-N1-C2	-5.94	121.53	125.10
25	BA	644	A	N1-C6-N6	-5.94	115.03	118.60
25	BA	2352	A	N1-C6-N6	5.94	122.17	118.60
1	CA	1108	G	C4-C5-N7	-5.94	108.42	110.80
25	DA	143(A)	C	C6-N1-C2	5.94	122.68	120.30
25	DA	329	G	N3-C4-N9	5.94	129.56	126.00
25	DA	1377	G	C4-N9-C1'	5.94	134.22	126.50
25	BA	506	G	N3-C4-N9	5.94	129.56	126.00
25	BA	632	A	C5-N7-C8	-5.94	100.93	103.90
25	DA	330	A	C6-C5-N7	-5.94	128.14	132.30
25	DA	1653	G	C6-C5-N7	-5.94	126.83	130.40
25	DA	1932	A	N9-C4-C5	5.94	108.18	105.80
25	DA	2603	G	C8-N9-C4	5.94	108.78	106.40
25	DA	2791	C	C2-N1-C1'	5.94	125.33	118.80
1	AA	812	C	C6-N1-C2	-5.94	117.92	120.30
25	BA	1648	C	C5-C6-N1	-5.94	118.03	121.00
25	BA	2575	C	C2-N1-C1'	5.94	125.33	118.80
25	DA	665	C	N3-C4-C5	5.94	124.28	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2623	G	C5-C6-O6	-5.94	125.04	128.60
1	AA	383	A	C8-N9-C4	5.94	108.17	105.80
25	BA	432	A	N1-C6-N6	5.94	122.16	118.60
25	BA	874	G	N1-C6-O6	5.94	123.46	119.90
25	BA	963	U	C5-C4-O4	-5.94	122.34	125.90
25	BA	1206	G	C8-N9-C4	5.94	108.78	106.40
25	BA	1220	A	N9-C4-C5	5.94	108.17	105.80
25	BA	1370	C	C6-N1-C2	5.94	122.67	120.30
25	BA	1857	G	C8-N9-C1'	-5.94	119.28	127.00
25	DA	1949	G	C2-N3-C4	-5.94	108.93	111.90
25	BA	52	A	N7-C8-N9	5.93	116.77	113.80
25	BA	214	G	N3-C4-C5	-5.93	125.63	128.60
25	BA	228	A	C4-C5-C6	-5.93	114.03	117.00
25	BA	548	A	N1-C6-N6	-5.93	115.04	118.60
25	BA	753	C	C2-N3-C4	-5.93	116.93	119.90
25	BA	761	A	C4-C5-N7	5.93	113.67	110.70
25	BA	1930	G	N1-C6-O6	5.93	123.46	119.90
25	BA	2247	A	C4-C5-C6	5.93	119.97	117.00
25	BA	2458	G	N1-C6-O6	5.93	123.46	119.90
29	BF	162	LEU	CA-CB-CG	5.93	128.95	115.30
25	DA	133	C	C5-C6-N1	-5.93	118.03	121.00
25	DA	1022	G	C6-C5-N7	5.93	133.96	130.40
25	DA	1885	A	C8-N9-C4	5.93	108.17	105.80
25	BA	753	C	N1-C2-O2	-5.93	115.34	118.90
25	BA	2707	G	C2-N3-C4	-5.93	108.93	111.90
1	CA	562	C	N3-C4-C5	5.93	124.27	121.90
25	DA	2435	A	C8-N9-C4	-5.93	103.43	105.80
25	DA	2860	A	N1-C6-N6	5.93	122.16	118.60
25	BA	251	A	C4-C5-C6	5.93	119.97	117.00
25	BA	584	C	N3-C4-N4	5.93	122.15	118.00
1	AA	1077	G	N9-C4-C5	-5.93	103.03	105.40
25	DA	380	U	C5-C4-O4	-5.93	122.34	125.90
25	DA	986	C	N1-C2-O2	5.93	122.46	118.90
1	CA	1197	G	C4-N9-C1'	5.93	134.21	126.50
25	DA	188	G	C5-C6-O6	-5.93	125.04	128.60
25	DA	271(M)	G	N9-C4-C5	-5.93	103.03	105.40
1	AA	863	U	C6-N1-C1'	5.93	129.50	121.20
1	AA	1430	C	C5-C6-N1	-5.93	118.04	121.00
13	AM	70	LEU	CA-CB-CG	5.93	128.93	115.30
25	BA	248	G	N1-C2-N3	5.93	127.46	123.90
25	BA	704	G	N3-C4-N9	-5.93	122.44	126.00
25	BA	2395	C	C5-C4-N4	-5.93	116.05	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	72	U	C5-C6-N1	-5.93	119.74	122.70
25	DA	1219	G	N3-C4-N9	-5.93	122.44	126.00
25	BA	1616	A	C4-C5-N7	5.92	113.66	110.70
25	BA	1776	G	N3-C4-N9	5.92	129.56	126.00
26	BB	118	G	C8-N9-C4	5.92	108.77	106.40
1	CA	1418	A	C8-N9-C4	5.92	108.17	105.80
25	BA	224	G	C6-N1-C2	-5.92	121.55	125.10
25	BA	567	A	C2-N3-C4	-5.92	107.64	110.60
25	BA	931	G	C5-C6-O6	5.92	132.15	128.60
52	B6	6	ARG	NE-CZ-NH1	5.92	123.26	120.30
25	DA	203	C	C4-C5-C6	-5.92	114.44	117.40
1	AA	841	U	C6-N1-C2	-5.92	117.45	121.00
25	BA	55	G	C2-N3-C4	5.92	114.86	111.90
25	BA	220	G	C4-C5-N7	5.92	113.17	110.80
25	BA	1560	G	C5-C6-O6	5.92	132.15	128.60
25	BA	2030	A	C5-C6-N6	-5.92	118.96	123.70
25	BA	2719	G	N9-C4-C5	-5.92	103.03	105.40
1	CA	848	C	C5-C6-N1	5.92	123.96	121.00
25	DA	425	G	C6-C5-N7	-5.92	126.85	130.40
25	BA	73	A	N1-C6-N6	-5.92	115.05	118.60
25	BA	1222	C	N3-C2-O2	5.92	126.04	121.90
25	DA	1142	U	N1-C2-O2	5.92	126.94	122.80
25	DA	1914	C	C2-N1-C1'	5.92	125.31	118.80
25	DA	2468	G	N1-C6-O6	5.92	123.45	119.90
25	DA	131	G	C5-C6-O6	-5.92	125.05	128.60
1	CA	1378	C	C4-C5-C6	5.92	120.36	117.40
25	DA	2452	C	C5-C4-N4	-5.92	116.06	120.20
25	BA	559	G	C4-N9-C1'	-5.91	118.81	126.50
25	BA	2037	G	N3-C4-N9	5.91	129.55	126.00
25	BA	2311	A	C8-N9-C4	5.91	108.17	105.80
1	CA	879	C	C5-C6-N1	-5.91	118.04	121.00
25	DA	972	G	C4-C5-N7	-5.91	108.44	110.80
25	DA	1552	G	N9-C4-C5	5.91	107.77	105.40
25	BA	978	G	N1-C2-N3	5.91	127.45	123.90
25	BA	1948	G	C4-C5-N7	-5.91	108.44	110.80
1	CA	600	C	C6-N1-C2	5.91	122.67	120.30
25	DA	1899	G	N1-C6-O6	5.91	123.45	119.90
1	AA	818	G	C4-C5-N7	-5.91	108.44	110.80
1	AA	1469	G	C8-N9-C4	-5.91	104.04	106.40
25	BA	209	C	C2-N3-C4	-5.91	116.94	119.90
25	BA	943	U	C6-N1-C2	-5.91	117.45	121.00
25	DA	614(A)	U	N3-C2-O2	-5.91	118.06	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1656	C	C2-N1-C1'	5.91	125.30	118.80
25	DA	2081	C	C6-N1-C2	5.91	122.66	120.30
25	BA	1204	A	C8-N9-C4	-5.91	103.44	105.80
25	BA	1353	A	C5-C6-N1	-5.91	114.75	117.70
1	CA	43	C	C6-N1-C2	5.91	122.66	120.30
1	AA	928	G	C5-N7-C8	-5.91	101.35	104.30
1	AA	1149	C	N1-C2-O2	5.91	122.44	118.90
1	AA	858	G	C8-N9-C1'	-5.91	119.32	127.00
25	BA	1220	A	C5-C6-N6	5.91	128.42	123.70
25	DA	668	G	C5-C6-N1	-5.91	108.55	111.50
25	DA	2035	G	N9-C4-C5	5.91	107.76	105.40
25	BA	1185	C	N3-C4-C5	5.90	124.26	121.90
25	BA	2529	G	N1-C6-O6	-5.90	116.36	119.90
25	BA	2876	G	N1-C6-O6	-5.90	116.36	119.90
1	AA	353	A	C5-N7-C8	-5.90	100.95	103.90
1	AA	781	A	N9-C4-C5	-5.90	103.44	105.80
25	BA	1763	G	C6-C5-N7	5.90	133.94	130.40
25	BA	1962	C	C5-C6-N1	5.90	123.95	121.00
1	CA	606	G	N3-C4-C5	-5.90	125.65	128.60
1	CA	774	G	C8-N9-C4	-5.90	104.04	106.40
25	DA	102	G	N1-C6-O6	-5.90	116.36	119.90
25	BA	218	A	N3-C4-C5	5.90	130.93	126.80
25	BA	1360	A	C2-N3-C4	-5.90	107.65	110.60
1	CA	912	C	C5-C6-N1	-5.90	118.05	121.00
25	DA	1822	G	C2-N3-C4	-5.90	108.95	111.90
25	DA	1963	U	C5-C6-N1	5.90	125.65	122.70
25	BA	2486	G	C2-N3-C4	5.90	114.85	111.90
25	BA	1364	G	C2-N3-C4	-5.90	108.95	111.90
25	DA	1579	A	C4-C5-C6	5.90	119.95	117.00
25	DA	1631(A)	A	C8-N9-C4	5.90	108.16	105.80
25	BA	640	C	N1-C2-O2	-5.90	115.36	118.90
25	BA	916	G	N3-C4-N9	5.89	129.54	126.00
25	BA	1268	A	N7-C8-N9	-5.89	110.85	113.80
25	BA	1571	A	C8-N9-C4	-5.89	103.44	105.80
25	BA	2546	U	C5-C6-N1	-5.89	119.75	122.70
25	DA	1658	C	N1-C2-O2	5.89	122.44	118.90
25	DA	1845	G	N9-C4-C5	5.89	107.76	105.40
1	AA	139	G	C8-N9-C4	-5.89	104.04	106.40
25	BA	148	C	N3-C4-N4	-5.89	113.88	118.00
25	BA	947	G	C5-C6-O6	-5.89	125.06	128.60
25	BA	1344	G	N1-C6-O6	5.89	123.44	119.90
25	BA	2686	G	C4-N9-C1'	5.89	134.16	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	34	C	N1-C2-O2	-5.89	115.36	118.90
1	AA	166	G	C4-N9-C1'	5.89	134.16	126.50
25	BA	1677	A	C8-N9-C4	5.89	108.16	105.80
25	BA	2655	G	O4'-C1'-N9	5.89	112.91	108.20
25	DA	781	A	N7-C8-N9	5.89	116.75	113.80
25	BA	474	G	P-O3'-C3'	5.89	126.77	119.70
25	BA	837	C	N1-C2-O2	-5.89	115.37	118.90
25	BA	1670	C	C6-N1-C2	-5.89	117.94	120.30
25	BA	1905	C	N1-C2-O2	5.89	122.43	118.90
26	BB	113	G	N9-C4-C5	-5.89	103.04	105.40
25	DA	524	U	N1-C2-N3	5.89	118.43	114.90
25	BA	600	G	C8-N9-C4	5.89	108.75	106.40
25	BA	795	C	C6-N1-C1'	-5.89	113.73	120.80
25	DA	2848	G	N1-C6-O6	-5.89	116.37	119.90
25	BA	1196	C	C2-N3-C4	-5.89	116.96	119.90
25	BA	1304	C	C2-N3-C4	-5.89	116.96	119.90
25	BA	1800	C	C2-N1-C1'	-5.89	112.33	118.80
25	BA	1803	A	C8-N9-C4	-5.89	103.44	105.80
25	BA	2192	G	N3-C4-C5	-5.89	125.66	128.60
1	CA	27	G	C8-N9-C4	-5.89	104.05	106.40
25	DA	1830	C	C5-C4-N4	-5.89	116.08	120.20
1	AA	916	G	C5-C6-O6	-5.88	125.07	128.60
25	BA	414	C	C2-N3-C4	-5.88	116.96	119.90
25	BA	1039	G	C8-N9-C4	5.88	108.75	106.40
25	BA	2751	G	C4-N9-C1'	5.88	134.15	126.50
26	BB	116	G	N9-C4-C5	-5.88	103.05	105.40
1	CA	1197	G	C8-N9-C1'	-5.88	119.35	127.00
25	DA	399	G	N9-C4-C5	-5.88	103.05	105.40
25	DA	697	C	N3-C4-N4	5.88	122.12	118.00
25	DA	1678	G	C8-N9-C1'	-5.88	119.35	127.00
25	DA	1827	C	N1-C2-N3	5.88	123.32	119.20
25	BA	350	U	C6-N1-C2	5.88	124.53	121.00
25	BA	614	U	N1-C2-N3	5.88	118.43	114.90
25	BA	928	G	N9-C4-C5	-5.88	103.05	105.40
25	BA	1403	C	C4-C5-C6	5.88	120.34	117.40
25	DA	219	G	N1-C6-O6	-5.88	116.37	119.90
25	BA	192	C	C6-N1-C2	5.88	122.65	120.30
23	CV	1	C	C6-N1-C2	-5.88	117.95	120.30
25	BA	233	A	C2-N3-C4	-5.88	107.66	110.60
25	BA	2082	A	C5-C6-N6	-5.88	119.00	123.70
25	BA	2330	G	N1-C6-O6	5.88	123.43	119.90
1	CA	1516	G	N3-C4-C5	5.88	131.54	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1561	G	N1-C6-O6	5.88	123.43	119.90
1	AA	439	A	C5-N7-C8	-5.88	100.96	103.90
25	BA	420	C	C6-N1-C2	5.88	122.65	120.30
25	BA	1358	G	C6-C5-N7	-5.88	126.87	130.40
25	BA	1797	C	N3-C4-C5	5.88	124.25	121.90
25	BA	2039	C	C6-N1-C2	-5.88	117.95	120.30
25	BA	2744	G	C8-N9-C4	5.88	108.75	106.40
25	BA	527	C	N1-C2-O2	-5.88	115.38	118.90
25	BA	534	U	N3-C4-C5	-5.88	111.07	114.60
25	BA	1268	A	N1-C2-N3	5.88	132.24	129.30
25	BA	2327	A	C5-C6-N1	5.88	120.64	117.70
25	DA	855	G	N1-C6-O6	5.88	123.43	119.90
25	DA	1408	C	C5-C4-N4	-5.88	116.09	120.20
25	DA	1026	U	N3-C2-O2	-5.88	118.09	122.20
25	BA	1450(A)	C	C5-C6-N1	-5.87	118.06	121.00
1	CA	120	A	N1-C2-N3	5.87	132.24	129.30
1	CA	413	G	N3-C4-C5	-5.87	125.66	128.60
1	CA	1274	G	N7-C8-N9	5.87	116.04	113.10
1	CA	1381	U	C2-N1-C1'	5.87	124.75	117.70
25	DA	559	G	C4-N9-C1'	-5.87	118.86	126.50
25	DA	1949	G	C6-C5-N7	-5.87	126.88	130.40
1	AA	129(A)	G	N1-C2-N3	5.87	127.42	123.90
25	BA	71	A	C4-C5-N7	5.87	113.64	110.70
1	CA	346	G	C4-N9-C1'	5.87	134.13	126.50
25	DA	1429	G	C8-N9-C4	-5.87	104.05	106.40
1	AA	770	C	C2-N3-C4	-5.87	116.97	119.90
25	BA	1942	C	N1-C2-O2	-5.87	115.38	118.90
25	DA	2717	G	N3-C4-C5	-5.87	125.67	128.60
25	BA	1003	G	C5-C6-N1	5.87	114.43	111.50
25	BA	1262	A	C5-C6-N6	-5.87	119.00	123.70
25	BA	2230	G	N3-C2-N2	-5.87	115.79	119.90
25	BA	2241	A	C6-N1-C2	-5.87	115.08	118.60
25	BA	2283	C	C2-N3-C4	-5.87	116.97	119.90
25	DA	1142(A)	A	C2-N3-C4	-5.87	107.67	110.60
30	DG	135	LEU	CA-CB-CG	5.87	128.80	115.30
25	BA	2224	G	C8-N9-C4	-5.87	104.05	106.40
25	BA	2734	A	C8-N9-C4	5.87	108.15	105.80
1	CA	1099	G	N9-C4-C5	5.87	107.75	105.40
25	DA	1771	C	N3-C4-C5	5.87	124.25	121.90
1	AA	628	G	C6-C5-N7	-5.86	126.88	130.40
1	AA	684	A	C8-N9-C4	-5.86	103.45	105.80
25	BA	1446	C	C6-N1-C2	-5.86	117.95	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2407	G	C8-N9-C1'	-5.86	119.38	127.00
25	BA	2454	G	C6-C5-N7	5.86	133.92	130.40
25	DA	1974	C	N3-C4-C5	5.86	124.25	121.90
1	AA	319	G	N1-C6-O6	5.86	123.42	119.90
25	BA	1828	G	C5-N7-C8	5.86	107.23	104.30
25	BA	1928	A	N3-C4-C5	-5.86	122.70	126.80
25	BA	928	G	C5-C6-O6	-5.86	125.08	128.60
25	BA	1430	C	C5-C4-N4	5.86	124.30	120.20
25	BA	2884	U	C6-N1-C1'	5.86	129.40	121.20
25	DA	2297	C	C5-C6-N1	5.86	123.93	121.00
1	AA	1475	G	N3-C4-C5	-5.86	125.67	128.60
25	BA	979	G	C8-N9-C1'	-5.86	119.38	127.00
25	BA	2607	G	N3-C4-C5	-5.86	125.67	128.60
25	BA	2783	G	C2-N3-C4	-5.86	108.97	111.90
25	BA	255	A	C5-N7-C8	-5.86	100.97	103.90
25	BA	748	G	C5-C6-O6	-5.86	125.08	128.60
25	BA	1812	A	N1-C2-N3	5.86	132.23	129.30
25	BA	2507	C	N3-C2-O2	-5.86	117.80	121.90
1	CA	1101	A	C8-N9-C4	5.86	108.14	105.80
25	DA	1021	A	C5-C6-N1	-5.86	114.77	117.70
25	DA	1256	G	C8-N9-C1'	-5.86	119.39	127.00
25	DA	1395	A	N1-C6-N6	-5.86	115.09	118.60
25	BA	1795	C	N1-C2-O2	5.86	122.41	118.90
25	BA	1970	A	N3-C4-N9	5.86	132.09	127.40
25	BA	2184	G	C5-C6-O6	5.86	132.11	128.60
25	DA	1115	G	C8-N9-C4	5.86	108.74	106.40
25	DA	1403	C	C4-C5-C6	5.86	120.33	117.40
1	AA	421	U	C6-N1-C1'	-5.85	113.00	121.20
1	AA	1504	G	C8-N9-C4	-5.85	104.06	106.40
25	BA	1817	G	N3-C4-C5	-5.85	125.67	128.60
1	AA	1417	G	N9-C4-C5	-5.85	103.06	105.40
25	BA	495	G	N1-C2-N3	5.85	127.41	123.90
25	BA	1036	G	N9-C4-C5	-5.85	103.06	105.40
25	BA	1314	C	N3-C2-O2	-5.85	117.80	121.90
25	BA	2015	A	N7-C8-N9	-5.85	110.87	113.80
25	DA	102	G	C4-C5-N7	-5.85	108.46	110.80
25	DA	1475	G	N3-C4-C5	5.85	131.53	128.60
25	DA	2755	C	C6-N1-C1'	-5.85	113.78	120.80
25	DA	2838	G	N1-C6-O6	5.85	123.41	119.90
25	DA	1223	G	N3-C4-C5	5.85	131.53	128.60
25	DA	1629	U	N1-C2-O2	-5.85	118.70	122.80
25	BA	255	A	N7-C8-N9	5.85	116.72	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1037	G	N1-C6-O6	5.85	123.41	119.90
25	BA	1888	G	C8-N9-C4	-5.85	104.06	106.40
25	BA	2507	C	N3-C4-C5	-5.85	119.56	121.90
25	BA	2658	C	C6-N1-C2	5.85	122.64	120.30
1	CA	1272	G	C4-N9-C1'	5.85	134.10	126.50
1	CA	1290	G	C4-N9-C1'	5.85	134.10	126.50
25	BA	1107	G	C8-N9-C1'	-5.85	119.40	127.00
25	BA	1238	G	N1-C6-O6	5.85	123.41	119.90
25	BA	1303	G	C4-C5-N7	-5.85	108.46	110.80
25	DA	113	G	N1-C2-N2	5.85	121.46	116.20
25	DA	1038	C	C5-C6-N1	5.85	123.92	121.00
25	DA	1899	G	C4-C5-N7	5.85	113.14	110.80
25	BA	437	G	N1-C2-N2	-5.85	110.94	116.20
25	DA	1142(A)	A	N1-C2-N3	5.85	132.22	129.30
1	AA	91	C	C6-N1-C2	-5.84	117.96	120.30
1	AA	1259	C	C6-N1-C2	-5.84	117.96	120.30
25	BA	723	G	C8-N9-C4	5.84	108.74	106.40
25	BA	931	G	C5-N7-C8	5.84	107.22	104.30
25	BA	1963	U	C6-N1-C1'	-5.84	113.02	121.20
25	BA	2308	G	N3-C4-C5	5.84	131.52	128.60
25	BA	2523	G	C5-C6-O6	-5.84	125.09	128.60
25	DA	1526	G	N3-C4-C5	5.84	131.52	128.60
25	DA	2857	G	C4-C5-N7	5.84	113.14	110.80
25	BA	120	U	N1-C2-O2	-5.84	118.71	122.80
25	BA	271(W)	G	N1-C6-O6	-5.84	116.39	119.90
25	BA	1021	A	C8-N9-C4	-5.84	103.46	105.80
25	BA	2056	G	C8-N9-C4	5.84	108.74	106.40
25	BA	2072	G	N1-C6-O6	5.84	123.41	119.90
1	CA	1124	G	C8-N9-C4	-5.84	104.06	106.40
25	DA	784	A	P-O3'-C3'	5.84	126.71	119.70
1	AA	974	A	N1-C6-N6	5.84	122.11	118.60
25	BA	513	A	N3-C4-C5	-5.84	122.71	126.80
25	DA	509	C	N3-C2-O2	-5.84	117.81	121.90
1	AA	344	A	N9-C4-C5	5.84	108.14	105.80
25	BA	2275	C	C4-C5-C6	5.84	120.32	117.40
25	DA	464	U	N3-C4-C5	-5.84	111.10	114.60
25	DA	760	G	N3-C2-N2	-5.84	115.81	119.90
25	DA	1497	U	C2-N1-C1'	5.84	124.71	117.70
25	DA	1769	G	C6-C5-N7	-5.84	126.90	130.40
25	BA	372	G	C5-C6-N1	5.84	114.42	111.50
25	BA	479	A	C8-N9-C4	5.84	108.14	105.80
25	BA	734	A	C6-C5-N7	-5.84	128.21	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	746	A	C5-C6-N6	-5.84	119.03	123.70
25	BA	761	A	N9-C4-C5	-5.84	103.47	105.80
25	BA	2365	G	C5-C6-N1	5.84	114.42	111.50
1	CA	1158	C	C6-N1-C2	-5.84	117.97	120.30
25	DA	1619	G	C5-C6-N1	5.84	114.42	111.50
25	BA	939	G	C5-C6-O6	5.83	132.10	128.60
25	BA	1005	C	N3-C4-N4	-5.83	113.92	118.00
25	DA	1355	G	C6-C5-N7	-5.83	126.90	130.40
1	AA	713	G	N3-C4-N9	5.83	129.50	126.00
1	AA	1282	C	C5-C6-N1	5.83	123.92	121.00
1	AA	1530	G	C4-C5-C6	-5.83	115.30	118.80
25	BA	945	A	C8-N9-C4	-5.83	103.47	105.80
25	BA	1709	U	N3-C4-O4	-5.83	115.32	119.40
25	BA	1928	A	C6-N1-C2	-5.83	115.10	118.60
25	BA	1989	G	N3-C4-N9	5.83	129.50	126.00
25	BA	2281	C	C6-N1-C2	5.83	122.63	120.30
27	BD	230	ASP	CB-CG-OD1	-5.83	113.05	118.30
25	DA	1393	A	C5-C6-N6	-5.83	119.03	123.70
1	AA	1052	U	C2-N3-C4	5.83	130.50	127.00
25	BA	139(A)	G	C2-N3-C4	5.83	114.82	111.90
25	BA	2041	U	C4-C5-C6	5.83	123.20	119.70
1	AA	1401	G	C5-C6-O6	-5.83	125.10	128.60
25	BA	244	A	C5-C6-N6	-5.83	119.04	123.70
25	BA	2021	C	C6-N1-C1'	-5.83	113.80	120.80
1	AA	827	U	N1-C2-O2	5.83	126.88	122.80
25	BA	206	U	N3-C4-C5	5.83	118.10	114.60
25	BA	485	C	N3-C4-C5	5.83	124.23	121.90
25	BA	990	A	N1-C2-N3	5.83	132.21	129.30
25	BA	1751	C	C6-N1-C2	5.83	122.63	120.30
25	BA	2883	A	C2-N3-C4	-5.83	107.69	110.60
25	DA	458	G	C5-C6-O6	5.83	132.10	128.60
25	BA	399	G	C4-N9-C1'	-5.83	118.92	126.50
25	BA	942	G	C8-N9-C4	-5.83	104.07	106.40
25	BA	1303	G	N9-C4-C5	5.83	107.73	105.40
25	BA	2537	U	N3-C4-O4	-5.83	115.32	119.40
25	BA	2730	C	C2-N1-C1'	-5.83	112.39	118.80
1	AA	578	C	N3-C2-O2	-5.83	117.82	121.90
1	AA	941	G	C5-C6-O6	-5.83	125.11	128.60
25	BA	189	G	C6-C5-N7	-5.83	126.90	130.40
25	BA	221	A	N9-C4-C5	5.83	108.13	105.80
25	BA	1928	A	C5-C6-N1	5.83	120.61	117.70
25	DA	2506	U	N3-C4-O4	-5.83	115.32	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2877	G	C5-C6-N1	-5.83	108.59	111.50
1	AA	1309	G	C8-N9-C4	5.82	108.73	106.40
25	BA	1480	G	N3-C4-N9	-5.82	122.51	126.00
25	BA	1612	C	C6-N1-C2	5.82	122.63	120.30
1	CA	1149	C	N1-C2-O2	5.82	122.39	118.90
25	DA	1663	C	C2-N3-C4	-5.82	116.99	119.90
25	BA	556	G	C5-C6-O6	-5.82	125.11	128.60
1	CA	662	G	C8-N9-C4	-5.82	104.07	106.40
1	CA	1048	G	C8-N9-C4	-5.82	104.07	106.40
1	AA	830	G	N1-C6-O6	5.82	123.39	119.90
1	AA	1406	U	N3-C2-O2	-5.82	118.12	122.20
25	BA	1997	G	C4-C5-N7	-5.82	108.47	110.80
25	BA	2275	C	N3-C4-C5	-5.82	119.57	121.90
1	CA	310	G	N1-C6-O6	5.82	123.39	119.90
25	DA	2259	G	N3-C2-N2	-5.82	115.83	119.90
1	AA	9	G	N1-C6-O6	5.82	123.39	119.90
25	DA	337	C	C5-C4-N4	5.82	124.27	120.20
25	BA	2405	G	C2-N3-C4	5.82	114.81	111.90
25	BA	2894	G	N7-C8-N9	5.82	116.01	113.10
1	CA	720	C	C2-N1-C1'	5.82	125.20	118.80
1	CA	1504	G	C8-N9-C4	-5.82	104.07	106.40
25	DA	330	A	N9-C4-C5	-5.82	103.47	105.80
25	DA	1653	G	N3-C2-N2	5.82	123.97	119.90
25	DA	2007	C	N3-C2-O2	5.82	125.97	121.90
25	DA	2415	G	C8-N9-C4	-5.82	104.07	106.40
1	AA	505	G	C4-C5-N7	5.82	113.13	110.80
25	BA	271(O)	C	C6-N1-C2	5.82	122.63	120.30
25	BA	391	G	C2-N3-C4	-5.82	108.99	111.90
25	BA	1797	C	C2-N3-C4	-5.82	116.99	119.90
25	BA	1939	U	C6-N1-C1'	-5.82	113.06	121.20
25	BA	2038	G	N9-C4-C5	-5.82	103.07	105.40
25	BA	2258	C	N3-C4-N4	5.82	122.07	118.00
25	BA	2465	C	C5-C6-N1	-5.82	118.09	121.00
26	BB	85	G	C4-N9-C1'	5.82	134.06	126.50
38	BS	95	HIS	N-CA-C	5.82	126.70	111.00
1	CA	1274	G	C8-N9-C4	-5.82	104.07	106.40
25	DA	1419	A	N1-C6-N6	-5.82	115.11	118.60
25	DA	2590	A	C6-N1-C2	-5.82	115.11	118.60
25	DA	1004	C	N1-C2-O2	-5.81	115.41	118.90
25	DA	1280	G	C8-N9-C4	5.81	108.73	106.40
1	AA	820	U	C6-N1-C1'	5.81	129.34	121.20
25	BA	697	C	C5-C6-N1	-5.81	118.09	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1495	A	C8-N9-C4	-5.81	103.47	105.80
25	BA	1611	C	N1-C2-O2	-5.81	115.41	118.90
25	BA	2103	C	N1-C2-O2	5.81	122.39	118.90
25	BA	2235	G	N1-C2-N3	5.81	127.39	123.90
1	CA	20	U	C6-N1-C2	5.81	124.49	121.00
1	CA	1108	G	C5-C6-O6	5.81	132.09	128.60
1	CA	1512	U	N1-C2-N3	5.81	118.39	114.90
25	DA	229	A	C3'-C2'-C1'	-5.81	96.85	101.50
1	AA	721	G	C6-C5-N7	-5.81	126.91	130.40
1	CA	506	G	N3-C4-C5	-5.81	125.69	128.60
25	BA	2067	G	C6-N1-C2	-5.81	121.61	125.10
25	BA	2346	A	N1-C2-N3	5.81	132.21	129.30
25	DA	733	G	C4-C5-N7	5.81	113.12	110.80
25	DA	2843	G	C5-C6-O6	-5.81	125.11	128.60
25	BA	119	A	N1-C2-N3	5.81	132.20	129.30
25	BA	1030	G	N3-C4-C5	5.81	131.50	128.60
25	DA	986	C	N3-C2-O2	-5.81	117.83	121.90
26	DB	54	G	C6-C5-N7	-5.81	126.92	130.40
25	DA	135	G	N1-C6-O6	5.81	123.38	119.90
25	BA	1922	G	N1-C6-O6	5.80	123.38	119.90
1	CA	1312	G	N9-C4-C5	5.80	107.72	105.40
1	AA	365	U	C4-C5-C6	5.80	123.18	119.70
1	AA	886	G	N3-C2-N2	-5.80	115.84	119.90
25	BA	341	G	N1-C2-N3	5.80	127.38	123.90
25	BA	942	G	C5-C6-O6	5.80	132.08	128.60
25	BA	2501	C	C6-N1-C1'	5.80	127.76	120.80
25	BA	2851	A	N1-C6-N6	5.80	122.08	118.60
25	DA	726	G	C4-C5-N7	-5.80	108.48	110.80
25	BA	335	C	N3-C4-C5	-5.80	119.58	121.90
25	BA	559	G	N3-C4-N9	-5.80	122.52	126.00
25	BA	1560	G	C6-C5-N7	5.80	133.88	130.40
25	BA	1828	G	N1-C2-N2	-5.80	110.98	116.20
25	BA	2070	G	C5-C6-O6	-5.80	125.12	128.60
25	BA	2225	A	C5-C6-N1	5.80	120.60	117.70
25	BA	147	U	N3-C4-C5	-5.80	111.12	114.60
25	BA	1156	A	C5-C6-N6	-5.80	119.06	123.70
25	BA	1243	G	N1-C6-O6	5.80	123.38	119.90
25	BA	2413	G	C2-N3-C4	-5.80	109.00	111.90
25	DA	2191	G	C6-N1-C2	5.80	128.58	125.10
25	BA	38	A	C6-N1-C2	-5.80	115.12	118.60
25	BA	1348	G	C5-C6-N1	5.80	114.40	111.50
25	DA	511	U	C6-N1-C2	-5.80	117.52	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2736	G	N1-C6-O6	5.80	123.38	119.90
25	DA	1569	A	C5-C6-N6	5.80	128.34	123.70
25	BA	2894	G	C4-C5-N7	5.79	113.12	110.80
25	DA	791	C	N1-C2-O2	5.79	122.38	118.90
25	DA	1142(A)	A	N7-C8-N9	5.79	116.70	113.80
1	AA	57	G	C8-N9-C4	-5.79	104.08	106.40
25	BA	425	G	C5-C6-O6	-5.79	125.12	128.60
25	BA	1343	G	N3-C4-C5	-5.79	125.70	128.60
25	BA	2035	G	C5-N7-C8	-5.79	101.40	104.30
25	BA	2373	G	C6-N1-C2	-5.79	121.62	125.10
25	DA	1026	U	N1-C2-O2	5.79	126.86	122.80
25	DA	1959	G	N3-C2-N2	-5.79	115.84	119.90
25	DA	2502	G	C5-C6-O6	-5.79	125.12	128.60
25	DA	2725	A	C5-C6-N1	5.79	120.60	117.70
25	BA	559	G	C8-N9-C1'	5.79	134.53	127.00
25	BA	1780	A	N9-C4-C5	5.79	108.12	105.80
25	DA	58	G	C8-N9-C4	-5.79	104.08	106.40
25	DA	1297	C	C5-C6-N1	-5.79	118.10	121.00
1	AA	203	U	C5-C6-N1	5.79	125.59	122.70
1	AA	1236	A	N1-C6-N6	5.79	122.07	118.60
25	BA	607	U	N3-C4-C5	5.79	118.07	114.60
25	BA	1372	U	N3-C4-C5	-5.79	111.13	114.60
25	BA	1447	G	N9-C4-C5	5.79	107.72	105.40
25	BA	2042	A	C8-N9-C4	5.79	108.11	105.80
25	DA	1631(A)	A	N1-C6-N6	5.79	122.07	118.60
25	DA	2028	U	C5-C4-O4	5.79	129.37	125.90
25	DA	2054	A	N1-C2-N3	5.79	132.19	129.30
25	BA	915	C	N1-C2-O2	5.79	122.37	118.90
25	BA	920	G	C8-N9-C4	5.79	108.72	106.40
25	BA	1020	A	C8-N9-C4	-5.79	103.48	105.80
25	DA	102	G	C5-C6-O6	5.79	132.07	128.60
25	BA	190	A	C4-C5-N7	5.79	113.59	110.70
25	BA	536	A	C6-N1-C2	-5.79	115.13	118.60
25	BA	2299	G	N1-C6-O6	5.79	123.37	119.90
25	BA	2553	G	N3-C4-C5	-5.79	125.71	128.60
25	DA	528	A	N7-C8-N9	5.79	116.69	113.80
26	DB	6	C	C5-C6-N1	-5.79	118.11	121.00
25	BA	832	G	C8-N9-C4	-5.78	104.09	106.40
25	BA	2358	G	C5-C6-O6	5.78	132.07	128.60
25	BA	2719	G	N3-C2-N2	5.78	123.95	119.90
26	BB	16	G	C8-N9-C4	5.78	108.71	106.40
25	DA	844	C	C6-N1-C2	5.78	122.61	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1264	G	C5-C6-N1	-5.78	108.61	111.50
1	AA	1499	A	C5-C6-N6	-5.78	119.08	123.70
25	BA	1121	C	C5-C6-N1	-5.78	118.11	121.00
25	BA	1372	U	N1-C2-O2	-5.78	118.75	122.80
25	DA	2473	U	C6-N1-C2	-5.78	117.53	121.00
25	DA	2565	A	C2-N3-C4	-5.78	107.71	110.60
1	AA	700	G	C5-C6-O6	-5.78	125.13	128.60
1	AA	965	A	C8-N9-C4	5.78	108.11	105.80
25	BA	303	U	C5-C6-N1	-5.78	119.81	122.70
25	BA	652(E)	G	N9-C4-C5	-5.78	103.09	105.40
25	DA	188	G	C5-N7-C8	-5.78	101.41	104.30
25	DA	787	U	C5-C4-O4	5.78	129.37	125.90
25	DA	1899	G	N3-C4-N9	5.78	129.47	126.00
25	DA	1964	G	C8-N9-C1'	-5.78	119.48	127.00
1	AA	1138	G	N3-C4-N9	5.78	129.47	126.00
1	CA	1300	G	C4-N9-C1'	-5.78	118.99	126.50
26	DB	4	C	C6-N1-C2	5.78	122.61	120.30
25	BA	500	G	C5-N7-C8	5.78	107.19	104.30
25	BA	2844	G	C8-N9-C4	5.78	108.71	106.40
25	DA	2258	C	N1-C2-O2	-5.78	115.43	118.90
1	AA	1272	G	C4-N9-C1'	5.78	134.01	126.50
1	CA	305	G	C4-C5-N7	-5.78	108.49	110.80
1	CA	851	G	C4-C5-C6	5.78	122.27	118.80
25	DA	461	C	N3-C2-O2	5.78	125.94	121.90
25	DA	583	G	C5-C6-N1	-5.78	108.61	111.50
25	DA	778	G	N9-C4-C5	-5.78	103.09	105.40
25	BA	2327	A	C4-C5-C6	-5.77	114.11	117.00
25	DA	1618	A	N9-C4-C5	5.77	108.11	105.80
31	DH	171	LEU	CA-CB-CG	5.77	128.58	115.30
25	BA	688	U	N1-C2-N3	5.77	118.36	114.90
25	BA	2783	G	C4-N9-C1'	5.77	134.00	126.50
25	DA	234	C	N1-C2-O2	-5.77	115.44	118.90
25	DA	566	U	C2-N1-C1'	-5.77	110.77	117.70
25	DA	791	C	N3-C2-O2	-5.77	117.86	121.90
25	BA	390	A	C5-C6-N6	-5.77	119.08	123.70
1	AA	1064	G	C8-N9-C1'	5.77	134.50	127.00
25	BA	687	C	C5-C6-N1	5.77	123.89	121.00
25	BA	2512	C	C5-C4-N4	-5.77	116.16	120.20
1	AA	644	G	C4-N9-C1'	-5.77	119.00	126.50
23	AV	53	G	N1-C6-O6	-5.77	116.44	119.90
25	BA	1418	G	C5-C6-O6	5.77	132.06	128.60
25	BA	1627	G	C6-C5-N7	-5.77	126.94	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2011	U	N1-C2-N3	5.77	118.36	114.90
25	BA	2029	G	N1-C6-O6	5.77	123.36	119.90
25	BA	2593	U	N3-C4-O4	-5.77	115.36	119.40
25	DA	113	G	N1-C6-O6	5.77	123.36	119.90
1	CA	942	G	N3-C4-N9	5.77	129.46	126.00
25	BA	458	G	N1-C6-O6	-5.76	116.44	119.90
25	BA	731	C	N3-C4-C5	-5.76	119.59	121.90
25	BA	1194	A	C5-C6-N6	-5.76	119.09	123.70
25	BA	1338	G	N3-C4-N9	5.76	129.46	126.00
1	CA	299	G	C5-C6-O6	-5.76	125.14	128.60
25	DA	2104	G	N3-C4-N9	5.76	129.46	126.00
25	BA	1557	C	C2-N3-C4	-5.76	117.02	119.90
25	BA	1707	G	N3-C2-N2	-5.76	115.87	119.90
26	BB	113	G	C8-N9-C1'	-5.76	119.51	127.00
25	DA	687	C	N1-C2-O2	-5.76	115.44	118.90
25	DA	1261	C	C6-N1-C2	5.76	122.61	120.30
1	AA	317	G	C6-C5-N7	-5.76	126.94	130.40
25	BA	752	A	P-O3'-C3'	5.76	126.61	119.70
25	BA	1750	G	N9-C4-C5	-5.76	103.09	105.40
25	BA	2382	G	N3-C2-N2	5.76	123.93	119.90
25	BA	2794	C	C6-N1-C2	-5.76	118.00	120.30
1	CA	674	G	N1-C6-O6	5.76	123.36	119.90
25	DA	2326	C	C6-N1-C1'	5.76	127.71	120.80
1	AA	774	G	C6-C5-N7	-5.76	126.94	130.40
25	BA	989	G	C6-C5-N7	-5.76	126.94	130.40
25	BA	2413	G	C8-N9-C4	5.76	108.70	106.40
25	DA	2535	G	C5-C6-O6	-5.76	125.14	128.60
25	DA	2755	C	C5-C4-N4	-5.76	116.17	120.20
1	AA	114	U	N3-C2-O2	-5.76	118.17	122.20
25	DA	1004	C	N3-C2-O2	5.76	125.93	121.90
1	AA	765	G	N1-C6-O6	5.76	123.35	119.90
25	BA	1519	G	N7-C8-N9	5.76	115.98	113.10
25	BA	1785	A	C6-C5-N7	-5.76	128.27	132.30
25	BA	2357	U	C5-C6-N1	-5.76	119.82	122.70
25	DA	6	A	C5-C6-N6	-5.76	119.10	123.70
25	BA	121	G	C5-C6-O6	-5.75	125.15	128.60
25	BA	125	G	N3-C4-N9	5.75	129.45	126.00
25	BA	129	C	C2-N3-C4	-5.75	117.02	119.90
1	CA	401	C	N1-C2-O2	-5.75	115.45	118.90
25	DA	778	G	C8-N9-C4	5.75	108.70	106.40
25	DA	1699	G	N9-C4-C5	5.75	107.70	105.40
25	DA	2286	A	C4-N9-C1'	5.75	136.66	126.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	628	G	N1-C6-O6	5.75	123.35	119.90
25	BA	212	G	C4-N9-C1'	-5.75	119.02	126.50
25	BA	632	A	C4-C5-N7	5.75	113.58	110.70
25	BA	652(H)	C	C2-N1-C1'	5.75	125.13	118.80
25	BA	1830	C	N3-C4-C5	5.75	124.20	121.90
25	BA	2753	A	N1-C6-N6	5.75	122.05	118.60
1	CA	851	G	C8-N9-C1'	-5.75	119.52	127.00
25	DA	2027	G	N1-C6-O6	-5.75	116.45	119.90
1	AA	47	C	C5-C6-N1	-5.75	118.12	121.00
1	AA	505	G	N7-C8-N9	5.75	115.97	113.10
25	BA	52	A	C8-N9-C4	-5.75	103.50	105.80
25	BA	1030	G	N7-C8-N9	-5.75	110.23	113.10
25	DA	2689	U	C5-C4-O4	5.75	129.35	125.90
25	DA	778	G	N1-C2-N2	-5.75	111.03	116.20
25	DA	2251	G	N3-C4-N9	5.75	129.45	126.00
25	BA	410	G	N1-C6-O6	5.74	123.35	119.90
25	BA	518	G	N1-C6-O6	-5.74	116.45	119.90
25	BA	1648	C	N1-C2-N3	5.74	123.22	119.20
26	BB	77	U	C6-N1-C2	5.74	124.45	121.00
25	DA	760	G	N9-C4-C5	5.74	107.70	105.40
25	BA	2623	G	N3-C4-C5	-5.74	125.73	128.60
1	CA	1502	A	N1-C6-N6	5.74	122.05	118.60
25	DA	22	C	N3-C4-N4	-5.74	113.98	118.00
25	DA	481	G	P-O3'-C3'	5.74	126.59	119.70
25	DA	1355	G	C5-C6-N1	-5.74	108.63	111.50
25	DA	1774	C	C2-N1-C1'	5.74	125.11	118.80
25	DA	2502	G	C5-N7-C8	-5.74	101.43	104.30
25	BA	992	C	N3-C4-C5	5.74	124.19	121.90
25	BA	2288	A	C5-C6-N6	-5.74	119.11	123.70
25	BA	2697	G	N1-C6-O6	5.74	123.34	119.90
25	BA	2417	C	C5-C6-N1	-5.74	118.13	121.00
25	BA	2575	C	N3-C2-O2	-5.74	117.88	121.90
1	AA	705	U	N1-C2-O2	-5.74	118.78	122.80
25	BA	589	C	C6-N1-C2	5.74	122.59	120.30
25	BA	797	C	N3-C4-N4	5.74	122.02	118.00
25	BA	1929	G	C5-N7-C8	5.74	107.17	104.30
25	BA	1195	G	C5-C6-O6	-5.73	125.16	128.60
25	BA	2443	C	C2-N3-C4	-5.73	117.03	119.90
1	AA	32	A	C4-C5-C6	5.73	119.87	117.00
1	AA	1077	G	C4-C5-N7	5.73	113.09	110.80
25	BA	2383	G	N9-C4-C5	-5.73	103.11	105.40
25	DA	2765	A	C4-C5-C6	5.73	119.87	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	45	C	N3-C2-O2	5.73	125.91	121.90
25	BA	925	C	C2-N1-C1'	-5.73	112.50	118.80
25	BA	988	A	C6-N1-C2	-5.73	115.16	118.60
1	CA	1497	G	N3-C4-N9	-5.73	122.56	126.00
25	DA	894	C	N1-C2-O2	5.73	122.34	118.90
25	DA	1831	G	C6-C5-N7	-5.73	126.96	130.40
1	AA	1053	G	N3-C4-C5	5.73	131.46	128.60
25	BA	1235	G	C5-C6-N1	-5.73	108.64	111.50
25	BA	1938	A	C6-N1-C2	-5.73	115.16	118.60
25	DA	482	A	C5-C6-N6	-5.73	119.12	123.70
25	BA	1308	A	C8-N9-C4	-5.73	103.51	105.80
25	BA	2407	G	C4-N9-C1'	5.73	133.95	126.50
26	BB	47	C	N3-C4-N4	5.73	122.01	118.00
25	DA	1297	C	C4-C5-C6	5.73	120.26	117.40
25	BA	186	G	N9-C4-C5	-5.73	103.11	105.40
25	BA	340	A	N1-C6-N6	5.73	122.04	118.60
25	BA	2069	G	C6-N1-C2	-5.73	121.66	125.10
25	BA	2828	C	C5-C4-N4	-5.73	116.19	120.20
25	BA	2875	C	N3-C2-O2	-5.73	117.89	121.90
25	DA	1616	A	N7-C8-N9	5.73	116.66	113.80
1	AA	1515	C	N1-C2-O2	-5.72	115.47	118.90
25	BA	591	C	N1-C2-O2	-5.72	115.47	118.90
25	BA	942	G	C5-N7-C8	5.72	107.16	104.30
25	BA	975(A)	G	N3-C4-C5	5.72	131.46	128.60
25	BA	1239	G	N1-C6-O6	5.72	123.33	119.90
25	BA	1938	A	N1-C2-N3	5.72	132.16	129.30
25	BA	2709	G	C5-C6-O6	5.72	132.03	128.60
1	AA	187	C	C6-N1-C2	-5.72	118.01	120.30
1	AA	785	G	C5-C6-O6	-5.72	125.17	128.60
25	BA	2063	C	C5-C4-N4	-5.72	116.19	120.20
25	DA	2049	G	C4-C5-N7	5.72	113.09	110.80
25	BA	659	C	C5-C6-N1	-5.72	118.14	121.00
25	BA	689	A	N1-C6-N6	-5.72	115.17	118.60
25	BA	1297	C	C2-N3-C4	-5.72	117.04	119.90
25	BA	1302	A	N7-C8-N9	-5.72	110.94	113.80
26	BB	46	A	C5-C6-N1	5.72	120.56	117.70
36	DQ	64	ILE	CB-CA-C	-5.72	100.16	111.60
25	BA	624	C	N3-C4-N4	-5.72	114.00	118.00
25	BA	1296	G	N3-C4-N9	5.72	129.43	126.00
1	CA	555	C	N3-C4-C5	-5.72	119.61	121.90
1	CA	638	G	N7-C8-N9	-5.72	110.24	113.10
25	DA	1223	G	C4-N9-C1'	-5.72	119.07	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	717	C	C2-N1-C1'	5.72	125.09	118.80
1	AA	1495	U	C6-N1-C2	-5.72	117.57	121.00
23	AV	74	C	N3-C2-O2	-5.72	117.90	121.90
25	BA	146	G	C6-C5-N7	-5.72	126.97	130.40
25	BA	214	G	N3-C4-N9	5.72	129.43	126.00
25	BA	1617	C	N3-C2-O2	5.72	125.90	121.90
25	BA	2423	U	C5-C6-N1	-5.72	119.84	122.70
26	BB	80	U	C6-N1-C1'	5.72	129.20	121.20
1	CA	481	G	C4-N9-C1'	5.72	133.93	126.50
25	DA	330	A	C5-C6-N6	-5.72	119.13	123.70
25	BA	271(X)	G	C2-N3-C4	-5.71	109.04	111.90
25	BA	391	G	C4-C5-N7	5.71	113.09	110.80
25	BA	775	G	C4-C5-N7	-5.71	108.51	110.80
25	BA	2409	G	C8-N9-C4	-5.71	104.11	106.40
1	CA	162	A	N1-C6-N6	-5.71	115.17	118.60
23	AV	76	A	N3-C4-N9	-5.71	122.83	127.40
25	BA	1975	G	C4-N9-C1'	5.71	133.93	126.50
1	AA	34	C	N3-C2-O2	5.71	125.90	121.90
1	AA	693	G	N9-C4-C5	-5.71	103.11	105.40
1	AA	755	G	C8-N9-C1'	-5.71	119.58	127.00
25	BA	88	G	N1-C6-O6	5.71	123.33	119.90
25	BA	715	G	C8-N9-C1'	-5.71	119.58	127.00
25	BA	1216	G	C4-C5-C6	5.71	122.23	118.80
34	BO	25	LEU	CB-CA-C	-5.71	99.35	110.20
25	DA	1008	C	N3-C4-C5	5.71	124.18	121.90
25	BA	27	G	C4-C5-C6	5.71	122.23	118.80
25	BA	377	C	N1-C2-O2	-5.71	115.47	118.90
25	DA	2425	A	C2-N3-C4	5.71	113.45	110.60
1	AA	1288	A	N9-C4-C5	5.71	108.08	105.80
25	BA	522	G	C2-N3-C4	-5.71	109.05	111.90
25	BA	764	A	C8-N9-C4	-5.71	103.52	105.80
26	BB	116	G	N3-C4-N9	5.71	129.43	126.00
25	DA	71	A	C4-C5-N7	5.71	113.55	110.70
25	DA	928	G	C8-N9-C4	-5.71	104.12	106.40
25	BA	272	G	C5-C6-N1	5.71	114.35	111.50
25	BA	701	G	C4-C5-N7	-5.71	108.52	110.80
25	BA	806	C	N3-C4-C5	5.71	124.18	121.90
25	BA	1108	U	C6-N1-C2	-5.71	117.58	121.00
25	BA	1364	G	N1-C6-O6	-5.71	116.48	119.90
25	BA	1604	C	N3-C4-N4	5.71	122.00	118.00
1	CA	817	C	N1-C2-O2	5.71	122.32	118.90
25	DA	1297	C	C5-C4-N4	5.71	124.19	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1598	C	C2-N1-C1'	5.71	125.08	118.80
1	AA	672	U	C5-C4-O4	5.71	129.32	125.90
25	BA	685	A	C2-N3-C4	-5.71	107.75	110.60
25	BA	842	G	N1-C6-O6	-5.71	116.48	119.90
25	BA	1012	U	N1-C2-O2	-5.71	118.81	122.80
25	BA	2520	C	N1-C2-N3	5.71	123.19	119.20
26	BB	73	A	C5-N7-C8	-5.71	101.05	103.90
25	DA	773	U	C2-N3-C4	-5.71	123.58	127.00
25	DA	2200	C	C6-N1-C2	-5.71	118.02	120.30
25	BA	189	G	N1-C2-N3	5.70	127.32	123.90
25	BA	204	A	C6-N1-C2	-5.70	115.18	118.60
25	BA	778	G	C5-N7-C8	-5.70	101.45	104.30
25	BA	2218	U	N1-C2-N3	-5.70	111.48	114.90
1	CA	803	G	N1-C6-O6	5.70	123.32	119.90
1	CA	914	A	N1-C6-N6	-5.70	115.18	118.60
25	DA	20	C	C6-N1-C2	-5.70	118.02	120.30
50	D4	42	PHE	C-N-CA	5.70	135.96	121.70
25	BA	489	G	N3-C2-N2	-5.70	115.91	119.90
1	CA	858	G	C8-N9-C1'	-5.70	119.59	127.00
25	DA	1830	C	C6-N1-C2	5.70	122.58	120.30
25	BA	864	G	C2-N3-C4	5.70	114.75	111.90
25	BA	1190	G	N1-C2-N2	-5.70	111.07	116.20
25	BA	2572	A	N1-C2-N3	5.70	132.15	129.30
25	DA	1027	A	N1-C6-N6	-5.70	115.18	118.60
25	BA	271(H)	G	C4-C5-N7	5.70	113.08	110.80
25	BA	335	C	C6-N1-C2	-5.70	118.02	120.30
26	BB	99	G	C8-N9-C1'	-5.70	119.59	127.00
1	AA	540	G	N3-C4-N9	5.70	129.42	126.00
25	BA	84	A	N9-C4-C5	5.70	108.08	105.80
25	BA	2105	C	C6-N1-C2	-5.70	118.02	120.30
25	BA	2298	A	N9-C4-C5	5.70	108.08	105.80
1	AA	811	C	C5-C6-N1	-5.70	118.15	121.00
25	BA	197	A	N7-C8-N9	5.70	116.65	113.80
25	BA	244	A	N1-C6-N6	5.70	122.02	118.60
25	BA	639	U	C5-C4-O4	5.70	129.32	125.90
1	CA	575	G	N1-C6-O6	5.70	123.32	119.90
1	CA	1108	G	C5-C6-N1	-5.70	108.65	111.50
1	CA	1274	G	C4-N9-C1'	5.70	133.91	126.50
25	DA	2388	A	N9-C4-C5	5.70	108.08	105.80
25	DA	2731	G	C4-C5-N7	5.70	113.08	110.80
25	BA	1676	A	N3-C4-N9	-5.69	122.84	127.40
1	AA	537	G	C8-N9-C4	-5.69	104.12	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1091	U	C2-N1-C1'	5.69	124.53	117.70
1	AA	1514	C	C6-N1-C2	-5.69	118.02	120.30
25	BA	129	C	C5-C4-N4	-5.69	116.22	120.20
25	BA	2502	G	C2-N3-C4	5.69	114.75	111.90
26	BB	9	G	C8-N9-C4	-5.69	104.12	106.40
1	CA	1272	G	C8-N9-C1'	-5.69	119.60	127.00
25	DA	1437	C	C2-N1-C1'	5.69	125.06	118.80
25	DA	2003	G	C2-N3-C4	-5.69	109.05	111.90
25	BA	1203	G	N1-C2-N2	-5.69	111.08	116.20
25	BA	2394	C	N3-C4-C5	5.69	124.18	121.90
25	BA	2512	C	N3-C2-O2	5.69	125.88	121.90
40	BU	39	LEU	CB-CG-CD2	-5.69	101.33	111.00
25	DA	314	A	N1-C6-N6	-5.69	115.19	118.60
25	DA	1125	G	C8-N9-C4	5.69	108.68	106.40
25	BA	2232	U	C5-C6-N1	-5.69	119.86	122.70
25	BA	2883	A	N1-C2-N3	5.69	132.15	129.30
1	CA	616	G	N3-C4-C5	-5.69	125.76	128.60
1	AA	886	G	N1-C2-N2	5.69	121.32	116.20
23	AV	58	A	C8-N9-C4	-5.69	103.53	105.80
25	BA	238	C	C5-C4-N4	-5.69	116.22	120.20
25	BA	623	G	C8-N9-C4	5.69	108.67	106.40
25	BA	1204	A	C8-N9-C1'	-5.69	117.46	127.70
25	BA	2719	G	C5-N7-C8	-5.69	101.46	104.30
25	DA	533	G	N9-C4-C5	-5.69	103.12	105.40
25	DA	1907	G	N3-C4-N9	-5.69	122.59	126.00
25	DA	2003	G	N3-C4-N9	-5.69	122.59	126.00
25	DA	2018	G	C4-N9-C1'	5.69	133.89	126.50
25	DA	2771	C	N3-C2-O2	-5.69	117.92	121.90
25	BA	1456	G	N1-C2-N3	5.69	127.31	123.90
25	BA	1817	G	N1-C6-O6	-5.69	116.49	119.90
25	BA	1973	G	C5-C6-O6	5.69	132.01	128.60
25	DA	1972	A	C8-N9-C4	-5.69	103.53	105.80
1	AA	388	G	C5-C6-O6	5.68	132.01	128.60
25	BA	577	G	N3-C2-N2	5.68	123.88	119.90
25	BA	1447	G	N3-C4-C5	-5.68	125.76	128.60
25	BA	2717	G	C4-C5-N7	5.68	113.07	110.80
25	DA	74	A	C8-N9-C4	-5.68	103.53	105.80
25	DA	1157	G	C8-N9-C4	-5.68	104.13	106.40
25	DA	1698	A	C6-C5-N7	-5.68	128.32	132.30
25	DA	2585	U	N1-C2-O2	5.68	126.78	122.80
25	DA	2686	G	N7-C8-N9	5.68	115.94	113.10
25	BA	271(S)	G	C4-C5-C6	5.68	122.21	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	435	C	N3-C4-C5	5.68	124.17	121.90
25	BA	1450	G	N7-C8-N9	5.68	115.94	113.10
25	BA	2246	G	C8-N9-C4	5.68	108.67	106.40
25	BA	2436	G	N1-C2-N3	5.68	127.31	123.90
1	CA	1154	G	N3-C4-N9	5.68	129.41	126.00
25	DA	371	A	N9-C4-C5	-5.68	103.53	105.80
25	DA	1362	C	C6-N1-C2	-5.68	118.03	120.30
25	BA	2552	U	N3-C4-C5	-5.68	111.19	114.60
1	AA	163	C	C2-N1-C1'	5.68	125.05	118.80
25	BA	447	A	C5-C6-N1	5.68	120.54	117.70
25	BA	854	G	C5-C6-N1	-5.68	108.66	111.50
25	BA	2465	C	C6-N1-C2	5.68	122.57	120.30
45	BZ	94	GLU	C-N-CD	5.68	140.33	128.40
25	DA	686	G	N1-C2-N3	5.68	127.31	123.90
25	DA	1915	U	C2-N1-C1'	5.68	124.52	117.70
25	DA	2437	U	C2-N1-C1'	-5.68	110.89	117.70
25	DA	2711	A	C2-N3-C4	-5.68	107.76	110.60
25	BA	1042	G	N3-C4-N9	5.68	129.41	126.00
25	BA	2020	A	C6-N1-C2	-5.68	115.19	118.60
25	DA	803	U	N1-C2-O2	5.68	126.78	122.80
25	BA	2339	G	C5-C6-O6	-5.68	125.19	128.60
25	DA	1968	G	N1-C6-O6	5.68	123.31	119.90
1	AA	577	G	N1-C6-O6	5.67	123.31	119.90
23	AV	9	G	N1-C6-O6	-5.67	116.50	119.90
25	BA	613	G	C8-N9-C1'	5.67	134.38	127.00
25	BA	978	G	C2-N3-C4	-5.67	109.06	111.90
25	BA	1265	A	C5-N7-C8	-5.67	101.06	103.90
25	BA	1383	C	C6-N1-C2	-5.67	118.03	120.30
25	BA	2014	A	C5-C6-N6	-5.67	119.16	123.70
25	BA	2319	G	N7-C8-N9	5.67	115.94	113.10
25	BA	2489	G	C2-N3-C4	-5.67	109.06	111.90
25	BA	652(Q)	G	C6-C5-N7	-5.67	127.00	130.40
25	BA	1976	U	N1-C2-N3	5.67	118.30	114.90
25	BA	524	U	C5-C4-O4	5.67	129.30	125.90
25	BA	967	C	C5-C6-N1	-5.67	118.16	121.00
25	BA	2509	G	N3-C2-N2	5.67	123.87	119.90
25	DA	494	G	N1-C6-O6	5.67	123.30	119.90
25	DA	2522	U	C6-N1-C2	5.67	124.40	121.00
25	BA	1348	G	C6-N1-C2	-5.67	121.70	125.10
25	DA	271(O)	C	N3-C2-O2	-5.67	117.93	121.90
25	DA	1470	G	N3-C4-N9	-5.67	122.60	126.00
1	AA	548	G	C5-C6-O6	-5.67	125.20	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	AD	31	CYS	N-CA-CB	5.67	120.80	110.60
14	AN	53	LEU	CA-CB-CG	-5.67	102.27	115.30
1	CA	1158	C	C2-N1-C1'	5.67	125.03	118.80
25	DA	452	G	C6-N1-C2	-5.67	121.70	125.10
25	DA	679	C	N1-C2-O2	-5.67	115.50	118.90
1	AA	130	A	N1-C6-N6	5.67	122.00	118.60
25	BA	1196	C	N1-C2-N3	5.67	123.17	119.20
25	BA	2379	G	N1-C6-O6	5.67	123.30	119.90
25	DA	60	G	N9-C4-C5	5.67	107.67	105.40
25	DA	1210	A	C5-C6-N6	-5.67	119.17	123.70
25	DA	1489	U	C5-C4-O4	5.67	129.30	125.90
25	BA	1022	G	N3-C4-N9	-5.66	122.60	126.00
25	BA	1769	G	N3-C4-C5	-5.66	125.77	128.60
25	BA	2598	A	C8-N9-C4	5.66	108.06	105.80
55	B9	9	ARG	NE-CZ-NH2	-5.66	117.47	120.30
25	DA	1187	G	C8-N9-C4	-5.66	104.14	106.40
25	DA	2598	A	C5-N7-C8	-5.66	101.07	103.90
26	DB	14	U	N1-C2-O2	5.66	126.76	122.80
1	AA	572	A	C8-N9-C1'	5.66	137.89	127.70
25	BA	1271	G	C5-C6-N1	-5.66	108.67	111.50
25	BA	1337	G	N3-C2-N2	-5.66	115.94	119.90
26	BB	56	G	N3-C4-C5	-5.66	125.77	128.60
25	DA	737	C	C2-N3-C4	-5.66	117.07	119.90
25	DA	1551	C	C6-N1-C2	-5.66	118.03	120.30
1	AA	928	G	N3-C4-C5	5.66	131.43	128.60
4	AD	26	CYS	CA-CB-SG	5.66	124.19	114.00
25	BA	298	G	C8-N9-C1'	-5.66	119.64	127.00
25	BA	503	A	N9-C4-C5	5.66	108.06	105.80
25	DA	805	G	C5-C6-N1	5.66	114.33	111.50
25	DA	972	G	N1-C2-N3	5.66	127.30	123.90
25	DA	1614	A	C2-N3-C4	-5.66	107.77	110.60
25	DA	2495	G	C5-C6-O6	-5.66	125.20	128.60
1	AA	1400	C	N3-C2-O2	-5.66	117.94	121.90
25	BA	24	G	C4-N9-C1'	5.66	133.85	126.50
25	BA	970	C	C5-C6-N1	-5.66	118.17	121.00
25	BA	1187	G	N3-C4-C5	-5.66	125.77	128.60
25	BA	1862	G	C6-C5-N7	5.66	133.79	130.40
1	CA	506	G	N1-C6-O6	-5.66	116.50	119.90
25	DA	1553	A	N9-C4-C5	5.66	108.06	105.80
25	DA	1857	G	C6-C5-N7	-5.66	127.00	130.40
25	BA	2361	A	C2-N3-C4	-5.66	107.77	110.60
1	AA	1482	G	N1-C2-N2	-5.66	111.11	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2296	U	N1-C2-N3	5.66	118.29	114.90
25	BA	613	G	C5-N7-C8	-5.65	101.47	104.30
25	BA	1279	G	C6-N1-C2	-5.65	121.71	125.10
25	DA	616	G	N3-C4-C5	-5.65	125.77	128.60
25	DA	2392	A	N1-C6-N6	-5.65	115.21	118.60
25	DA	574	C	N3-C4-N4	-5.65	114.04	118.00
1	AA	341	C	C6-N1-C2	5.65	122.56	120.30
25	BA	700	G	C6-N1-C2	-5.65	121.71	125.10
25	BA	990	A	C2-N3-C4	-5.65	107.78	110.60
25	BA	1275	A	C6-C5-N7	-5.65	128.34	132.30
46	B0	53	MET	CG-SD-CE	5.65	109.24	100.20
1	AA	98	G	C6-C5-N7	-5.65	127.01	130.40
25	BA	316	C	N3-C4-C5	5.65	124.16	121.90
25	BA	1171	G	N3-C4-N9	5.65	129.39	126.00
25	BA	1208	C	C6-N1-C2	5.65	122.56	120.30
36	BQ	51	ARG	NE-CZ-NH1	-5.65	117.48	120.30
1	CA	774	G	N7-C8-N9	5.65	115.92	113.10
25	DA	216	A	N1-C2-N3	5.65	132.12	129.30
25	DA	1276	A	C2-N3-C4	-5.65	107.78	110.60
25	DA	1625	C	N1-C2-O2	5.65	122.29	118.90
25	DA	2791	C	N3-C4-N4	5.65	121.95	118.00
25	BA	682	G	C4-N9-C1'	5.65	133.84	126.50
25	BA	114	U	C2-N1-C1'	5.64	124.47	117.70
25	BA	2032	G	C2-N3-C4	-5.64	109.08	111.90
25	BA	2079	U	C4-C5-C6	5.64	123.09	119.70
26	BB	24	G	C5-C6-O6	-5.64	125.21	128.60
25	DA	1208	C	N3-C4-N4	5.64	121.95	118.00
25	DA	1314	C	N1-C2-O2	5.64	122.29	118.90
25	DA	1640	C	C2-N1-C1'	5.64	125.01	118.80
25	BA	431	U	C2-N1-C1'	5.64	124.47	117.70
25	BA	2037	G	C5-C6-O6	5.64	131.99	128.60
25	BA	2311	A	N7-C8-N9	-5.64	110.98	113.80
1	CA	993	G	N3-C4-N9	5.64	129.39	126.00
25	DA	1616	A	N1-C6-N6	5.64	121.99	118.60
25	DA	2689	U	C4-C5-C6	5.64	123.08	119.70
25	DA	2723	C	N1-C2-N3	5.64	123.15	119.20
25	DA	577	G	C8-N9-C4	5.64	108.66	106.40
25	DA	669	G	C4-C5-N7	-5.64	108.54	110.80
25	BA	308	G	C4-C5-N7	5.64	113.06	110.80
25	BA	333	G	C4-N9-C1'	5.64	133.83	126.50
25	BA	1708	C	C4-C5-C6	-5.64	114.58	117.40
25	BA	1970	A	C2-N3-C4	5.64	113.42	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2271	G	C5-C6-O6	-5.64	125.22	128.60
25	BA	2780	G	C5-C6-O6	5.64	131.98	128.60
25	DA	1787	A	N1-C6-N6	5.64	121.98	118.60
25	DA	2607	G	N1-C2-N2	-5.64	111.12	116.20
25	BA	72	U	C4-C5-C6	5.64	123.08	119.70
26	BB	80	U	N3-C2-O2	-5.64	118.25	122.20
25	DA	1639	U	N3-C2-O2	-5.64	118.25	122.20
25	DA	2259	G	N1-C2-N2	5.64	121.27	116.20
25	DA	2778	A	C2-N3-C4	-5.64	107.78	110.60
25	DA	2829	C	N3-C4-C5	5.64	124.16	121.90
1	AA	1391	U	C2-N3-C4	5.64	130.38	127.00
25	BA	518	G	N3-C4-N9	5.64	129.38	126.00
25	BA	708	C	N3-C2-O2	-5.64	117.95	121.90
25	BA	764	A	C4-C5-C6	5.64	119.82	117.00
25	BA	2038	G	N3-C2-N2	5.64	123.84	119.90
25	BA	2045	C	C5-C6-N1	-5.64	118.18	121.00
1	CA	892	A	C5-C6-N6	-5.64	119.19	123.70
1	CA	1528	U	C5-C6-N1	-5.64	119.88	122.70
25	DA	2473	U	C5-C6-N1	5.64	125.52	122.70
1	AA	1480	G	C8-N9-C4	-5.63	104.15	106.40
25	BA	319	C	N1-C2-O2	5.63	122.28	118.90
25	BA	791	C	N3-C4-C5	5.63	124.15	121.90
25	BA	1262	A	C8-N9-C4	-5.63	103.55	105.80
25	BA	1342	A	N1-C2-N3	5.63	132.12	129.30
25	BA	2061	G	C8-N9-C4	-5.63	104.15	106.40
25	DA	1648	C	N1-C2-O2	-5.63	115.52	118.90
26	DB	94	C	C6-N1-C2	5.63	122.55	120.30
25	DA	2039	C	N3-C2-O2	-5.63	117.96	121.90
25	DA	2042	A	C2-N3-C4	-5.63	107.78	110.60
25	BA	83	G	C2-N3-C4	-5.63	109.08	111.90
25	BA	86	C	C2-N3-C4	-5.63	117.08	119.90
25	BA	488	G	C4-C5-C6	5.63	122.18	118.80
25	BA	771	G	C5-C6-O6	5.63	131.98	128.60
25	BA	2258	C	C2-N1-C1'	5.63	125.00	118.80
25	DA	85	G	C8-N9-C4	5.63	108.65	106.40
25	DA	946	G	N9-C4-C5	5.63	107.65	105.40
25	BA	545	G	C5-N7-C8	-5.63	101.48	104.30
25	DA	2460	U	N3-C4-C5	-5.63	111.22	114.60
25	BA	1149	G	C5-C6-N1	-5.63	108.69	111.50
25	BA	2680	C	C5-C4-N4	-5.63	116.26	120.20
25	DA	192	C	C6-N1-C2	5.63	122.55	120.30
25	BA	316	C	N3-C4-N4	-5.63	114.06	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1403	C	N1-C2-O2	-5.63	115.52	118.90
25	BA	1514	U	C2-N1-C1'	5.63	124.45	117.70
25	BA	1620	G	N9-C4-C5	-5.63	103.15	105.40
25	BA	392	C	C6-N1-C2	5.62	122.55	120.30
25	BA	694	U	N3-C4-O4	-5.62	115.46	119.40
25	BA	2647	U	N3-C2-O2	-5.62	118.26	122.20
25	DA	105	C	N3-C2-O2	5.62	125.84	121.90
25	DA	2222	G	C8-N9-C4	-5.62	104.15	106.40
25	BA	182	A	C5-N7-C8	-5.62	101.09	103.90
25	BA	488	G	N1-C2-N3	5.62	127.27	123.90
25	BA	776	G	C5-C6-N1	-5.62	108.69	111.50
25	BA	1292	U	C4-C5-C6	-5.62	116.33	119.70
25	BA	2299	G	N3-C4-C5	5.62	131.41	128.60
1	CA	1366	C	N3-C4-C5	-5.62	119.65	121.90
25	DA	1701	A	C8-N9-C4	-5.62	103.55	105.80
1	AA	163	C	N1-C2-O2	5.62	122.27	118.90
25	BA	515	A	N9-C4-C5	5.62	108.05	105.80
25	BA	2014	A	N7-C8-N9	-5.62	110.99	113.80
23	CV	60	U	N3-C2-O2	-5.62	118.27	122.20
25	DA	1432	C	N3-C4-N4	5.62	121.94	118.00
27	DD	271	ILE	CB-CA-C	-5.62	100.36	111.60
25	BA	1395	A	C4-C5-N7	-5.62	107.89	110.70
25	BA	2446	G	C2-N3-C4	-5.62	109.09	111.90
1	AA	1274	G	C8-N9-C4	-5.62	104.15	106.40
25	BA	675	A	C5-C6-N1	5.62	120.51	117.70
25	BA	1241	A	N7-C8-N9	-5.62	110.99	113.80
25	BA	1774	C	C5-C6-N1	5.62	123.81	121.00
1	CA	953	G	N3-C4-N9	5.62	129.37	126.00
25	BA	1834	U	N1-C2-O2	5.62	126.73	122.80
25	DA	1487	G	C8-N9-C4	-5.62	104.15	106.40
25	BA	452	G	C5-C6-N1	5.62	114.31	111.50
25	BA	1997	G	N3-C2-N2	-5.62	115.97	119.90
25	BA	2031	A	C5-N7-C8	5.62	106.71	103.90
25	BA	2413	G	N1-C2-N3	5.62	127.27	123.90
25	BA	2536	G	C2-N3-C4	-5.62	109.09	111.90
25	DA	1926	U	C5-C4-O4	5.62	129.27	125.90
1	AA	1205	U	C6-N1-C2	-5.61	117.63	121.00
25	BA	78	A	N1-C6-N6	5.61	121.97	118.60
25	BA	298	G	C4-N9-C1'	5.61	133.80	126.50
25	BA	641	C	N3-C4-C5	-5.61	119.65	121.90
25	BA	1920	C	C4-C5-C6	-5.61	114.59	117.40
25	BA	2082	A	C8-N9-C4	5.61	108.05	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1205	U	N3-C4-C5	-5.61	111.23	114.60
25	DA	133	C	C6-N1-C2	5.61	122.55	120.30
25	DA	889	C	C6-N1-C2	-5.61	118.05	120.30
25	DA	2473	U	N1-C2-O2	5.61	126.73	122.80
25	BA	133	C	C2-N3-C4	-5.61	117.09	119.90
25	BA	251	A	C4-C5-N7	-5.61	107.89	110.70
25	BA	945	A	C6-N1-C2	-5.61	115.23	118.60
25	BA	2552	U	N1-C2-O2	-5.61	118.87	122.80
25	BA	2770	G	C8-N9-C4	5.61	108.64	106.40
1	AA	700	G	N1-C6-O6	5.61	123.27	119.90
25	BA	238	C	C6-N1-C2	5.61	122.55	120.30
25	BA	446	G	C6-C5-N7	-5.61	127.03	130.40
25	BA	784	A	C4-C5-N7	-5.61	107.89	110.70
25	BA	1010	A	C2-N3-C4	-5.61	107.80	110.60
25	BA	1573	G	N1-C6-O6	5.61	123.27	119.90
25	BA	1626	G	C8-N9-C4	-5.61	104.16	106.40
25	BA	2426	A	N1-C6-N6	-5.61	115.23	118.60
25	DA	1909	C	N3-C2-O2	-5.61	117.97	121.90
25	DA	1992	G	C5-C6-N1	5.61	114.31	111.50
25	DA	2239	G	N1-C6-O6	-5.61	116.53	119.90
25	DA	2356	C	N3-C2-O2	5.61	125.83	121.90
1	AA	798	G	N3-C4-C5	-5.61	125.80	128.60
25	BA	582	G	N1-C2-N2	-5.61	111.15	116.20
25	BA	2581	G	C4-N9-C1'	5.61	133.79	126.50
25	BA	2783	G	N1-C2-N3	5.61	127.26	123.90
25	DA	733	G	C4-N9-C1'	5.61	133.79	126.50
25	DA	1374	G	N1-C6-O6	5.61	123.27	119.90
25	DA	2039	C	N1-C2-O2	5.61	122.26	118.90
25	DA	2596	U	C5-C6-N1	-5.61	119.90	122.70
1	AA	572	A	C4-C5-C6	-5.61	114.20	117.00
25	BA	473	G	C5-N7-C8	5.61	107.10	104.30
25	BA	646	A	N7-C8-N9	5.61	116.60	113.80
25	BA	701	G	C5-C6-N1	-5.61	108.70	111.50
25	BA	944	G	C5-N7-C8	-5.61	101.50	104.30
25	BA	1656	C	C6-N1-C2	-5.61	118.06	120.30
42	BW	98	LYS	N-CA-C	-5.61	95.87	111.00
1	AA	1358	U	C5-C6-N1	-5.60	119.90	122.70
25	BA	621	A	N9-C4-C5	5.60	108.04	105.80
1	AA	541	G	N3-C4-N9	-5.60	122.64	126.00
25	BA	644	A	C8-N9-C4	-5.60	103.56	105.80
25	BA	1665	A	C5-C6-N1	5.60	120.50	117.70
25	BA	1671	U	N3-C4-C5	5.60	117.96	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2503	A	C6-C5-N7	-5.60	128.38	132.30
1	CA	1323	G	C4-C5-C6	5.60	122.16	118.80
25	DA	380	U	N3-C2-O2	5.60	126.12	122.20
25	DA	407	G	C8-N9-C1'	-5.60	119.72	127.00
25	DA	1160	G	N3-C4-C5	-5.60	125.80	128.60
25	DA	1427	A	C8-N9-C4	-5.60	103.56	105.80
1	AA	226	G	C8-N9-C4	5.60	108.64	106.40
1	AA	1401	G	N7-C8-N9	5.60	115.90	113.10
25	BA	529	A	C4-C5-N7	5.60	113.50	110.70
25	BA	689	A	N1-C2-N3	5.60	132.10	129.30
25	BA	1897	G	C5-C6-O6	-5.60	125.24	128.60
1	AA	811	C	N3-C4-C5	5.60	124.14	121.90
25	BA	516	C	N3-C2-O2	5.60	125.82	121.90
25	BA	733	G	C5-C6-N1	5.60	114.30	111.50
25	BA	2033	A	C5-N7-C8	5.60	106.70	103.90
25	BA	2779	U	N3-C2-O2	-5.60	118.28	122.20
25	DA	1769	G	N7-C8-N9	5.60	115.90	113.10
25	BA	272(D)	G	N7-C8-N9	-5.60	110.30	113.10
25	BA	680	G	C2-N3-C4	-5.60	109.10	111.90
25	BA	981	A	N1-C2-N3	-5.60	126.50	129.30
25	BA	1235	G	N9-C4-C5	5.60	107.64	105.40
25	BA	2551	C	C6-N1-C2	-5.60	118.06	120.30
25	DA	962	G	C5-C6-O6	-5.60	125.24	128.60
25	BA	500	G	N9-C4-C5	5.60	107.64	105.40
25	BA	1313	U	C2-N1-C1'	5.60	124.42	117.70
25	BA	2323	G	N1-C6-O6	5.60	123.26	119.90
1	CA	1473	A	C8-N9-C4	5.60	108.04	105.80
25	DA	768	G	C6-C5-N7	-5.60	127.04	130.40
25	BA	227	A	N1-C2-N3	5.59	132.10	129.30
25	BA	339	U	C6-N1-C2	5.59	124.36	121.00
25	BA	400	G	C4-C5-C6	5.59	122.16	118.80
25	BA	652(A)	A	C2-N3-C4	5.59	113.40	110.60
25	BA	1232	G	C5-C6-O6	-5.59	125.24	128.60
25	BA	1776	G	N9-C4-C5	-5.59	103.16	105.40
25	BA	2070	G	N1-C6-O6	5.59	123.26	119.90
25	BA	2318	G	O4'-C1'-N9	5.59	112.68	108.20
25	BA	2894	G	C8-N9-C1'	-5.59	119.73	127.00
25	DA	1611	C	N1-C2-O2	-5.59	115.54	118.90
1	AA	518	C	C2-N1-C1'	5.59	124.95	118.80
25	BA	229	A	N7-C8-N9	5.59	116.60	113.80
25	BA	271(M)	G	C8-N9-C1'	-5.59	119.73	127.00
25	BA	890	A	C6-C5-N7	-5.59	128.38	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	560	C	C2-N1-C1'	-5.59	112.65	118.80
25	BA	1760	A	C5-C6-N6	-5.59	119.23	123.70
25	BA	2079	U	N1-C2-N3	5.59	118.25	114.90
25	BA	2476	A	C8-N9-C4	-5.59	103.56	105.80
25	BA	2594	C	C4-C5-C6	5.59	120.20	117.40
25	DA	493	G	N3-C4-C5	5.59	131.40	128.60
25	BA	36	G	N7-C8-N9	-5.59	110.31	113.10
25	BA	493	G	C6-N1-C2	-5.59	121.75	125.10
25	BA	530	G	N1-C2-N2	5.59	121.23	116.20
25	BA	1607	C	C5-C6-N1	5.59	123.80	121.00
25	BA	1676	A	N3-C4-C5	5.59	130.71	126.80
25	BA	1990	C	N3-C4-C5	-5.59	119.66	121.90
25	BA	2072	G	C5-C6-O6	-5.59	125.25	128.60
25	BA	2873	A	N1-C6-N6	5.59	121.95	118.60
1	CA	150	C	C5-C6-N1	5.59	123.80	121.00
25	DA	2788	C	C2-N1-C1'	-5.59	112.65	118.80
25	BA	735	A	N7-C8-N9	-5.59	111.01	113.80
1	AA	932	C	C2-N1-C1'	5.59	124.94	118.80
25	BA	1263	U	N1-C2-O2	5.59	126.71	122.80
25	BA	1662	C	C6-N1-C2	-5.59	118.06	120.30
25	DA	92	A	C5-N7-C8	-5.59	101.11	103.90
25	DA	560	C	N1-C2-O2	-5.59	115.55	118.90
25	DA	1160	G	N3-C4-N9	5.59	129.35	126.00
25	BA	614(C)	A	N1-C6-N6	5.58	121.95	118.60
25	BA	690	G	C5-C6-N1	5.58	114.29	111.50
25	BA	1031	G	C5-C6-O6	-5.58	125.25	128.60
25	BA	1237	A	C4-C5-N7	-5.58	107.91	110.70
25	BA	2752	C	C6-N1-C2	5.58	122.53	120.30
25	DA	1520	G	N3-C4-N9	5.58	129.35	126.00
25	DA	2482	G	C4-N9-C1'	5.58	133.76	126.50
1	AA	687	A	P-O3'-C3'	5.58	126.40	119.70
25	BA	1262	A	N7-C8-N9	5.58	116.59	113.80
25	BA	1674	G	C8-N9-C1'	-5.58	119.74	127.00
25	BA	2050	C	C5-C6-N1	-5.58	118.21	121.00
25	BA	2458	G	C5-C6-N1	-5.58	108.71	111.50
1	CA	1499	A	N7-C8-N9	-5.58	111.01	113.80
25	DA	1934	C	C5-C6-N1	-5.58	118.21	121.00
25	DA	2207	G	C4-N9-C1'	5.58	133.76	126.50
25	DA	2430	A	C2-N3-C4	-5.58	107.81	110.60
1	AA	668	G	C8-N9-C4	-5.58	104.17	106.40
1	AA	1150	U	C5-C4-O4	5.58	129.25	125.90
23	AV	9	G	C4-C5-N7	-5.58	108.57	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	533	G	N1-C6-O6	5.58	123.25	119.90
25	BA	686	G	C8-N9-C1'	-5.58	119.75	127.00
25	BA	706	A	C2-N3-C4	-5.58	107.81	110.60
25	BA	1116	C	C5-C4-N4	-5.58	116.29	120.20
25	BA	1681	G	N3-C4-C5	5.58	131.39	128.60
25	BA	2837	G	C8-N9-C4	-5.58	104.17	106.40
1	CA	572	A	N7-C8-N9	-5.58	111.01	113.80
1	AA	1526	G	C8-N9-C4	-5.58	104.17	106.40
25	BA	1319	G	N7-C8-N9	5.58	115.89	113.10
25	BA	1426	G	C8-N9-C4	5.58	108.63	106.40
25	BA	1525	G	C4-C5-N7	-5.58	108.57	110.80
27	BD	237	GLU	N-CA-C	-5.58	95.94	111.00
25	DA	1983	C	N1-C2-O2	-5.58	115.55	118.90
25	DA	2570	G	C8-N9-C4	5.58	108.63	106.40
1	AA	365	U	C6-N1-C1'	5.58	129.01	121.20
25	BA	9	U	C2-N3-C4	5.58	130.35	127.00
25	BA	1660	C	N1-C2-O2	5.58	122.25	118.90
26	BB	29	A	C5-N7-C8	-5.58	101.11	103.90
1	CA	96	U	C5-C6-N1	5.58	125.49	122.70
1	CA	333	G	C5-C6-O6	-5.58	125.25	128.60
25	DA	1811	G	N3-C2-N2	-5.58	115.99	119.90
25	DA	2455	G	C8-N9-C4	-5.58	104.17	106.40
25	DA	2503	A	C5-C6-N6	-5.58	119.24	123.70
25	DA	2894	G	N3-C4-N9	5.58	129.35	126.00
26	BB	38	C	N3-C4-C5	5.58	124.13	121.90
1	CA	892	A	N9-C4-C5	-5.58	103.57	105.80
25	DA	1281	G	C5-C6-N1	-5.58	108.71	111.50
25	DA	2689	U	P-O3'-C3'	5.58	126.39	119.70
25	BA	803	U	N3-C4-O4	-5.58	115.50	119.40
25	BA	2228	G	N1-C2-N2	-5.58	111.18	116.20
25	BA	2624	G	C8-N9-C4	5.58	108.63	106.40
2	CB	238	LEU	CA-CB-CG	5.58	128.12	115.30
25	DA	1021	A	C5-N7-C8	-5.58	101.11	103.90
25	DA	2053	G	N1-C6-O6	5.58	123.25	119.90
25	DA	2440	C	C5-C6-N1	-5.58	118.21	121.00
1	AA	1044	A	N1-C6-N6	-5.57	115.26	118.60
25	BA	675	A	N9-C4-C5	-5.57	103.57	105.80
25	BA	930	U	C2-N1-C1'	5.57	124.39	117.70
25	BA	1618	A	C6-N1-C2	-5.57	115.25	118.60
25	BA	2782	G	N3-C4-C5	5.57	131.39	128.60
26	BB	77	U	C5-C4-O4	-5.57	122.56	125.90
25	DA	213	A	C4-C5-N7	5.57	113.49	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1758	G	N9-C4-C5	5.57	107.63	105.40
26	DB	56	G	N3-C4-C5	-5.57	125.81	128.60
25	BA	1016	G	N3-C4-N9	-5.57	122.66	126.00
1	AA	1495	U	N3-C4-O4	5.57	123.30	119.40
25	BA	85	G	N7-C8-N9	-5.57	110.31	113.10
25	BA	572	A	C4-C5-C6	5.57	119.78	117.00
25	BA	2482	G	C4-C5-C6	5.57	122.14	118.80
25	BA	2520	C	C4-C5-C6	5.57	120.19	117.40
25	DA	188	G	N9-C4-C5	-5.57	103.17	105.40
1	CA	942	G	N3-C4-C5	-5.57	125.82	128.60
25	DA	1367	A	N1-C6-N6	5.57	121.94	118.60
25	DA	2238	G	N3-C2-N2	-5.57	116.00	119.90
1	AA	880	C	N3-C2-O2	5.57	125.80	121.90
25	BA	1553	A	N1-C2-N3	5.57	132.08	129.30
25	BA	1761	C	N3-C4-N4	5.57	121.90	118.00
25	BA	2489	G	N3-C2-N2	5.57	123.80	119.90
25	BA	2503	A	C5-N7-C8	-5.57	101.12	103.90
25	DA	783	A	N3-C4-C5	-5.57	122.90	126.80
1	AA	511	C	C2-N3-C4	-5.57	117.12	119.90
1	AA	697	U	C5-C6-N1	-5.57	119.92	122.70
25	BA	480	A	C6-C5-N7	-5.57	128.40	132.30
25	BA	513	A	N9-C4-C5	5.57	108.03	105.80
25	BA	775	G	C2-N3-C4	5.57	114.68	111.90
1	CA	522	C	N3-C2-O2	-5.57	118.00	121.90
1	CA	921	U	C2-N3-C4	5.57	130.34	127.00
25	DA	265	A	C4-C5-N7	5.57	113.48	110.70
25	DA	583	G	C6-C5-N7	-5.57	127.06	130.40
25	DA	2621	A	C2-N3-C4	-5.57	107.82	110.60
25	DA	2697	G	C8-N9-C4	5.57	108.63	106.40
25	BA	870	A	C5-C6-N1	5.56	120.48	117.70
26	BB	60	C	N3-C4-C5	-5.56	119.67	121.90
1	CA	234	C	C6-N1-C2	5.56	122.53	120.30
25	DA	2056	G	C4-C5-N7	5.56	113.03	110.80
1	AA	672	U	N1-C2-N3	5.56	118.24	114.90
25	BA	257	A	C6-C5-N7	-5.56	128.41	132.30
25	BA	679	C	C6-N1-C2	5.56	122.53	120.30
25	BA	1397	U	C2-N3-C4	-5.56	123.66	127.00
25	BA	2014	A	N9-C4-C5	-5.56	103.58	105.80
25	BA	2290	G	N1-C2-N3	5.56	127.24	123.90
25	DA	773	U	C5-C6-N1	-5.56	119.92	122.70
25	DA	856	C	C3'-C2'-C1'	-5.56	97.05	101.50
1	AA	644	G	N3-C4-C5	5.56	131.38	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	205	G	N1-C2-N2	-5.56	111.20	116.20
25	BA	512	G	O4'-C1'-N9	5.56	112.65	108.20
25	BA	928	G	C5-C6-N1	-5.56	108.72	111.50
25	BA	1922	G	N3-C4-C5	5.56	131.38	128.60
25	BA	2226	C	C2-N3-C4	-5.56	117.12	119.90
25	BA	2335	A	N1-C6-N6	-5.56	115.27	118.60
1	CA	1530	G	N1-C6-O6	5.56	123.24	119.90
25	DA	2866	U	C5-C4-O4	5.56	129.24	125.90
1	AA	340	U	C6-N1-C2	5.56	124.33	121.00
25	BA	621	A	C2-N3-C4	5.56	113.38	110.60
25	BA	679	C	C5-C6-N1	-5.56	118.22	121.00
25	BA	1346	G	N3-C4-C5	-5.56	125.82	128.60
25	BA	2228	G	N3-C2-N2	5.56	123.79	119.90
1	CA	730	G	N1-C6-O6	-5.56	116.56	119.90
25	DA	2283	C	N3-C2-O2	5.56	125.79	121.90
1	AA	511	C	C2-N1-C1'	-5.56	112.69	118.80
1	AA	858	G	N3-C4-C5	-5.55	125.82	128.60
1	AA	1279	A	N7-C8-N9	5.55	116.58	113.80
1	AA	1482	G	C4-N9-C1'	5.55	133.72	126.50
1	AA	1512	U	C2-N3-C4	-5.55	123.67	127.00
25	BA	90	U	C5-C6-N1	5.55	125.48	122.70
25	BA	732	C	C2-N3-C4	-5.55	117.12	119.90
1	CA	1227	A	C8-N9-C4	-5.55	103.58	105.80
1	AA	774	G	C4-N9-C1'	5.55	133.72	126.50
25	BA	210	C	N3-C4-N4	-5.55	114.11	118.00
25	BA	1549	C	C6-N1-C2	5.55	122.52	120.30
25	BA	1785	A	C4-C5-C6	5.55	119.78	117.00
25	BA	1967	C	C6-N1-C2	5.55	122.52	120.30
25	DA	480	A	N3-C4-C5	-5.55	122.91	126.80
25	BA	1151	G	N1-C6-O6	-5.55	116.57	119.90
25	BA	1272	A	N1-C6-N6	-5.55	115.27	118.60
25	BA	1295	C	C2-N1-C1'	-5.55	112.69	118.80
25	BA	2281	C	N1-C2-O2	-5.55	115.57	118.90
25	BA	2475	C	N3-C4-C5	-5.55	119.68	121.90
25	BA	2766	G	N3-C4-C5	-5.55	125.82	128.60
25	DA	506	G	C4-C5-N7	5.55	113.02	110.80
25	DA	1698	A	N3-C4-N9	-5.55	122.96	127.40
6	AF	43	LEU	CA-CB-CG	-5.55	102.54	115.30
25	BA	1681	G	C2-N3-C4	-5.55	109.12	111.90
25	DA	2708	G	C8-N9-C4	5.55	108.62	106.40
1	AA	784	C	C6-N1-C2	5.55	122.52	120.30
25	BA	730	C	N3-C2-O2	5.55	125.78	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	473	G	N3-C2-N2	-5.55	116.02	119.90
25	BA	474	G	C8-N9-C1'	5.55	134.21	127.00
25	BA	533	G	C4-C5-N7	5.55	113.02	110.80
25	BA	2017	U	C5-C6-N1	-5.55	119.93	122.70
25	BA	2729	G	N1-C2-N2	-5.55	111.21	116.20
1	CA	720	C	C6-N1-C2	-5.55	118.08	120.30
25	DA	676	A	N1-C2-N3	5.55	132.07	129.30
1	AA	199	G	N3-C4-N9	5.54	129.33	126.00
1	AA	521	G	N1-C2-N3	5.54	127.23	123.90
25	BA	437	G	N3-C2-N2	5.54	123.78	119.90
25	BA	1246	A	C6-N1-C2	-5.54	115.27	118.60
25	DA	197	A	C5-C6-N6	-5.54	119.26	123.70
25	BA	377	C	N3-C4-N4	5.54	121.88	118.00
25	BA	545	G	N9-C4-C5	-5.54	103.18	105.40
25	BA	2289	G	N1-C2-N2	5.54	121.19	116.20
25	BA	2356	C	C2-N3-C4	-5.54	117.13	119.90
25	BA	2896	C	C2-N3-C4	5.54	122.67	119.90
1	CA	878	G	C4-N9-C1'	5.54	133.71	126.50
25	DA	1256	G	N1-C6-O6	5.54	123.23	119.90
25	BA	30	G	C5-C6-O6	5.54	131.93	128.60
25	BA	449	A	C2-N3-C4	-5.54	107.83	110.60
25	BA	1317	A	C5-C6-N6	-5.54	119.27	123.70
25	BA	1793	C	N1-C2-N3	5.54	123.08	119.20
25	BA	2433	A	C8-N9-C4	-5.54	103.58	105.80
25	BA	2589	A	N3-C4-C5	5.54	130.68	126.80
25	DA	1927	A	N7-C8-N9	5.54	116.57	113.80
25	DA	2897	U	C6-N1-C1'	-5.54	113.44	121.20
1	AA	28	G	C8-N9-C4	-5.54	104.18	106.40
1	AA	857	C	N3-C4-C5	-5.54	119.68	121.90
25	BA	234	C	N3-C2-O2	-5.54	118.02	121.90
25	BA	414	C	C6-N1-C2	5.54	122.52	120.30
25	BA	1443	G	C5-C6-N1	-5.54	108.73	111.50
25	BA	2349	G	N7-C8-N9	5.54	115.87	113.10
37	BR	97	VAL	CB-CA-C	-5.54	100.87	111.40
25	DA	467	G	N7-C8-N9	-5.54	110.33	113.10
25	DA	1558	A	N7-C8-N9	5.54	116.57	113.80
1	CA	629	G	C2-N3-C4	-5.54	109.13	111.90
1	CA	1502	A	N7-C8-N9	5.54	116.57	113.80
25	BA	1506	C	C6-N1-C2	-5.54	118.08	120.30
25	BA	2476	A	C4-C5-C6	5.54	119.77	117.00
25	BA	2501	C	N3-C4-C5	5.54	124.11	121.90
25	DA	33	U	C5-C4-O4	-5.54	122.58	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	975	C	C4-C5-C6	-5.54	114.63	117.40
25	DA	1113	U	N3-C2-O2	-5.54	118.32	122.20
1	AA	395	C	N3-C4-C5	-5.54	119.69	121.90
1	AA	774	G	C8-N9-C1'	-5.54	119.80	127.00
25	BA	738	G	C8-N9-C4	-5.54	104.19	106.40
25	BA	1023	U	N3-C2-O2	-5.54	118.33	122.20
25	BA	1312	U	N3-C2-O2	-5.54	118.33	122.20
25	BA	1770	G	N1-C6-O6	5.54	123.22	119.90
25	BA	2027	G	N1-C2-N2	-5.54	111.22	116.20
25	DA	1556	C	C5-C6-N1	-5.54	118.23	121.00
25	BA	418	G	N9-C4-C5	-5.53	103.19	105.40
25	BA	741	G	C5-C6-N1	5.53	114.27	111.50
25	BA	950	G	C2-N3-C4	-5.53	109.13	111.90
25	BA	950	G	N7-C8-N9	-5.53	110.33	113.10
25	DA	30	G	N9-C4-C5	5.53	107.61	105.40
43	BX	60	ARG	NE-CZ-NH1	5.53	123.07	120.30
1	AA	166	G	N7-C8-N9	5.53	115.86	113.10
1	AA	822	C	C6-N1-C2	5.53	122.51	120.30
16	AP	50	LYS	N-CA-C	-5.53	96.07	111.00
25	BA	472	A	C5-C6-N6	-5.53	119.28	123.70
25	BA	535	C	N3-C4-C5	-5.53	119.69	121.90
25	BA	768	G	C4-C5-C6	5.53	122.12	118.80
25	BA	867	C	C6-N1-C2	-5.53	118.09	120.30
25	BA	2260	C	N1-C2-N3	5.53	123.07	119.20
1	CA	427	U	N1-C2-O2	5.53	126.67	122.80
1	CA	856	C	N3-C4-C5	-5.53	119.69	121.90
25	DA	2781	A	C5-C6-N6	5.53	128.12	123.70
25	BA	565	C	N3-C2-O2	-5.53	118.03	121.90
25	DA	1983	C	C2-N3-C4	-5.53	117.14	119.90
1	AA	524	G	C8-N9-C4	-5.53	104.19	106.40
25	BA	1123	C	C4-C5-C6	5.53	120.16	117.40
25	BA	1281	G	N1-C6-O6	5.53	123.22	119.90
25	BA	2388	A	C8-N9-C4	-5.53	103.59	105.80
26	BB	95	C	N1-C2-N3	-5.53	115.33	119.20
1	CA	1325	C	C2-N1-C1'	-5.53	112.72	118.80
25	DA	1640	C	N3-C2-O2	-5.53	118.03	121.90
1	AA	93	G	N3-C2-N2	5.53	123.77	119.90
25	BA	1236	G	C5-C6-O6	-5.53	125.28	128.60
25	BA	1479	G	C5-C6-N1	-5.53	108.74	111.50
1	CA	299	G	N9-C4-C5	-5.53	103.19	105.40
23	CV	32	C	N1-C2-O2	5.53	122.22	118.90
25	DA	2291	U	C5-C4-O4	5.53	129.22	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2318	G	C4-N9-C1'	5.53	133.68	126.50
25	DA	2463	C	N1-C2-O2	-5.53	115.58	118.90
25	BA	366	C	N1-C2-O2	-5.52	115.59	118.90
25	BA	2598	A	N9-C4-C5	-5.52	103.59	105.80
25	DA	307	G	N3-C4-N9	5.52	129.31	126.00
25	DA	452	G	C5-C6-N1	5.52	114.26	111.50
25	BA	265	A	C4-N9-C1'	5.52	136.24	126.30
25	BA	572	A	C8-N9-C4	-5.52	103.59	105.80
25	BA	1321	A	C2-N3-C4	-5.52	107.84	110.60
25	BA	2819	G	C5-C6-O6	-5.52	125.29	128.60
1	CA	1077	G	N3-C4-C5	5.52	131.36	128.60
25	DA	187	G	C6-C5-N7	-5.52	127.09	130.40
1	AA	96	U	N1-C2-N3	-5.52	111.59	114.90
25	BA	132	G	C2-N3-C4	-5.52	109.14	111.90
25	BA	2375	G	C5-N7-C8	5.52	107.06	104.30
25	BA	2463	C	C5-C4-N4	-5.52	116.33	120.20
25	BA	2542	A	C5-C6-N1	-5.52	114.94	117.70
1	CA	76	C	C6-N1-C2	-5.52	118.09	120.30
1	CA	113	G	N1-C6-O6	5.52	123.21	119.90
1	AA	818	G	N3-C4-C5	-5.52	125.84	128.60
25	BA	579	G	N1-C6-O6	5.52	123.21	119.90
25	BA	1314	C	C6-N1-C1'	-5.52	114.18	120.80
25	BA	1315	C	N3-C4-N4	-5.52	114.14	118.00
25	BA	1392	A	C5-N7-C8	5.52	106.66	103.90
25	BA	2252	G	C4-C5-N7	5.52	113.01	110.80
1	CA	740	U	C2-N1-C1'	-5.52	111.08	117.70
1	CA	866	C	C6-N1-C2	-5.52	118.09	120.30
1	AA	439	A	N7-C8-N9	5.52	116.56	113.80
25	BA	608	A	N1-C6-N6	5.52	121.91	118.60
25	BA	1245	G	N3-C4-C5	-5.52	125.84	128.60
25	BA	725	G	N1-C2-N3	5.52	127.21	123.90
25	BA	878	A	C4-N9-C1'	5.52	136.23	126.30
26	BB	19	G	C4-C5-N7	5.52	113.01	110.80
1	AA	1507	A	C2-N3-C4	-5.51	107.84	110.60
25	BA	524	U	N1-C2-O2	5.51	126.66	122.80
25	BA	737	C	C5-C4-N4	-5.51	116.34	120.20
25	BA	1016	G	N3-C4-C5	5.51	131.36	128.60
1	CA	1274	G	N3-C4-C5	-5.51	125.84	128.60
25	DA	2002	G	C2-N3-C4	-5.51	109.14	111.90
1	AA	347	G	C8-N9-C1'	-5.51	119.83	127.00
25	BA	70	G	C8-N9-C4	-5.51	104.19	106.40
25	BA	352	G	C8-N9-C4	5.51	108.61	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1667	G	N7-C8-N9	-5.51	110.34	113.10
25	BA	1785	A	C5-C6-N6	-5.51	119.29	123.70
25	BA	2005	A	C6-N1-C2	-5.51	115.29	118.60
25	BA	2503	A	C6-N1-C2	-5.51	115.29	118.60
25	BA	2689	U	C4-C5-C6	5.51	123.01	119.70
25	DA	25	U	N3-C2-O2	5.51	126.06	122.20
25	DA	1509	C	C6-N1-C2	-5.51	118.09	120.30
25	DA	2821	A	C2-N3-C4	-5.51	107.84	110.60
25	BA	678	C	C2-N3-C4	-5.51	117.14	119.90
25	BA	1326	U	C5-C6-N1	-5.51	119.94	122.70
25	BA	2239	G	C8-N9-C4	5.51	108.60	106.40
1	CA	1227	A	N7-C8-N9	5.51	116.56	113.80
25	DA	1293	C	N3-C4-C5	5.51	124.10	121.90
1	AA	791	G	C2-N3-C4	-5.51	109.15	111.90
1	AA	872	A	C6-C5-N7	-5.51	128.44	132.30
25	BA	1266	G	C4-N9-C1'	-5.51	119.34	126.50
25	BA	1819	A	P-O3'-C3'	5.51	126.31	119.70
25	BA	2061	G	C2-N3-C4	5.51	114.65	111.90
1	CA	1497	G	N3-C2-N2	-5.51	116.05	119.90
25	BA	255	A	N1-C2-N3	5.51	132.05	129.30
25	BA	400	G	N9-C4-C5	5.51	107.60	105.40
25	BA	1188	U	C5-C4-O4	-5.51	122.60	125.90
25	DA	33	U	C6-N1-C2	5.51	124.30	121.00
25	DA	645	C	C2-N3-C4	5.51	122.65	119.90
25	DA	1235	G	C4-C5-N7	-5.51	108.60	110.80
25	DA	2100	G	C5-C6-O6	5.51	131.90	128.60
25	DA	2735	G	C5-C6-O6	-5.50	125.30	128.60
1	AA	1504	G	P-O3'-C3'	5.50	126.31	119.70
25	BA	1678	G	N3-C4-C5	-5.50	125.85	128.60
44	BY	92	ASN	N-CA-C	5.50	125.86	111.00
25	DA	1233	C	C5-C6-N1	5.50	123.75	121.00
25	DA	1663	C	C5-C4-N4	-5.50	116.35	120.20
1	AA	547	A	N9-C4-C5	5.50	108.00	105.80
1	AA	1138	G	C2-N3-C4	5.50	114.65	111.90
25	BA	1236	G	N1-C6-O6	5.50	123.20	119.90
25	BA	1920	C	C5-C6-N1	5.50	123.75	121.00
25	BA	2229	C	N1-C2-O2	5.50	122.20	118.90
25	BA	2268	A	C8-N9-C4	-5.50	103.60	105.80
25	BA	2299	G	N3-C2-N2	-5.50	116.05	119.90
25	BA	2482	G	C8-N9-C1'	-5.50	119.85	127.00
26	BB	112	U	C6-N1-C2	5.50	124.30	121.00
1	CA	644	G	C8-N9-C4	5.50	108.60	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1279	A	N3-C4-C5	-5.50	122.95	126.80
25	DA	62	C	C5-C6-N1	-5.50	118.25	121.00
25	DA	738	G	N1-C2-N2	-5.50	111.25	116.20
25	DA	811	U	C2-N1-C1'	-5.50	111.10	117.70
25	DA	1482	G	C5-C6-N1	5.50	114.25	111.50
25	DA	1647	G	N3-C4-C5	5.50	131.35	128.60
25	DA	1985	G	N1-C2-N3	5.50	127.20	123.90
25	DA	2023	G	N7-C8-N9	5.50	115.85	113.10
4	AD	110	PHE	CB-CG-CD1	5.50	124.65	120.80
25	BA	1296	G	C5-C6-N1	5.50	114.25	111.50
25	BA	2392	A	C8-N9-C1'	-5.50	117.80	127.70
48	B2	51	ARG	N-CA-C	-5.50	96.15	111.00
25	DA	1949	G	N1-C2-N3	5.50	127.20	123.90
25	BA	452	G	C2-N3-C4	5.50	114.65	111.90
25	BA	1336	A	N9-C4-C5	5.50	108.00	105.80
25	DA	592	G	N3-C4-N9	5.50	129.30	126.00
25	DA	678	C	N3-C4-C5	5.50	124.10	121.90
25	DA	1445(A)	C	C2-N1-C1'	5.50	124.85	118.80
25	DA	1754	C	C6-N1-C2	5.50	122.50	120.30
25	BA	927	G	N3-C2-N2	-5.50	116.05	119.90
25	BA	1769	G	N9-C4-C5	-5.50	103.20	105.40
25	BA	2330	G	C6-C5-N7	-5.50	127.10	130.40
19	CS	26	GLY	N-CA-C	5.50	126.84	113.10
25	DA	1579	A	C4-N9-C1'	5.50	136.19	126.30
25	DA	1826	G	N3-C4-N9	5.50	129.30	126.00
25	DA	2084	C	C6-N1-C2	5.50	122.50	120.30
25	BA	428	A	N1-C2-N3	5.50	132.05	129.30
25	BA	1027	A	C6-N1-C2	-5.50	115.30	118.60
25	DA	1202	C	N1-C2-O2	-5.50	115.60	118.90
25	BA	199	A	C5-C6-N1	5.49	120.45	117.70
25	BA	528	A	C8-N9-C1'	5.49	137.59	127.70
25	BA	563	G	C8-N9-C4	5.49	108.60	106.40
25	BA	695	G	N3-C2-N2	-5.49	116.06	119.90
25	BA	1586	A	C5-N7-C8	-5.49	101.15	103.90
25	BA	2256	G	C2-N3-C4	-5.49	109.15	111.90
25	BA	2468	G	C5-C6-O6	-5.49	125.30	128.60
25	DA	2205	C	C2-N3-C4	5.49	122.65	119.90
25	BA	966	G	C2-N3-C4	-5.49	109.15	111.90
25	BA	2446	G	C6-C5-N7	-5.49	127.11	130.40
25	DA	1350	C	N1-C2-O2	-5.49	115.61	118.90
25	BA	391	G	N9-C4-C5	-5.49	103.20	105.40
25	BA	2044	C	C5-C6-N1	-5.49	118.25	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2482	G	N1-C2-N3	5.49	127.19	123.90
1	CA	363	A	C8-N9-C4	5.49	108.00	105.80
1	AA	1341	U	N1-C2-N3	5.49	118.19	114.90
1	AA	1358	U	C2-N1-C1'	-5.49	111.11	117.70
25	BA	1630	G	N1-C2-N3	5.49	127.19	123.90
25	DA	1769	G	C4-C5-C6	5.49	122.09	118.80
25	DA	1966	A	C5-C6-N6	5.49	128.09	123.70
25	DA	2396	G	C5-C6-O6	-5.49	125.31	128.60
1	AA	165	C	N3-C2-O2	-5.49	118.06	121.90
1	AA	1126	U	C6-N1-C2	-5.49	117.71	121.00
25	BA	379	G	C2-N3-C4	-5.49	109.16	111.90
25	BA	810	U	N1-C2-O2	5.49	126.64	122.80
25	BA	1162	G	C6-N1-C2	-5.49	121.81	125.10
25	BA	1992	G	C6-N1-C2	-5.49	121.81	125.10
1	CA	363	A	C6-C5-N7	5.49	136.14	132.30
25	BA	1280	G	C2-N3-C4	-5.48	109.16	111.90
25	BA	1371	G	C8-N9-C1'	-5.48	119.87	127.00
25	BA	1229	G	N1-C2-N3	5.48	127.19	123.90
25	BA	1259	G	N1-C2-N2	-5.48	111.27	116.20
25	BA	1378	A	N3-C4-C5	5.48	130.64	126.80
25	BA	1959	G	C5-N7-C8	5.48	107.04	104.30
1	CA	597	G	N1-C6-O6	-5.48	116.61	119.90
25	DA	737	C	C5-C6-N1	-5.48	118.26	121.00
25	DA	1487	G	N3-C2-N2	-5.48	116.06	119.90
1	AA	693	G	C5-C6-O6	-5.48	125.31	128.60
1	AA	913	A	P-O3'-C3'	5.48	126.28	119.70
1	AA	1499	A	N9-C4-C5	-5.48	103.61	105.80
25	BA	1711	C	N3-C4-C5	5.48	124.09	121.90
1	CA	473	G	N3-C2-N2	-5.48	116.06	119.90
25	DA	509	C	C5-C6-N1	-5.48	118.26	121.00
25	DA	2206	G	N7-C8-N9	-5.48	110.36	113.10
25	DA	2296	U	N3-C2-O2	-5.48	118.36	122.20
25	BA	63	U	C5-C6-N1	-5.48	119.96	122.70
1	CA	764	C	C6-N1-C2	-5.48	118.11	120.30
25	DA	2713	A	N1-C6-N6	-5.48	115.31	118.60
1	AA	1205	U	N3-C4-C5	-5.48	111.31	114.60
25	BA	2015	A	N1-C2-N3	5.48	132.04	129.30
25	BA	2288	A	N1-C6-N6	5.48	121.89	118.60
1	CA	149	A	C3'-C2'-C1'	5.48	105.88	101.50
25	DA	666	G	C2-N3-C4	-5.48	109.16	111.90
25	DA	1602	U	C5-C6-N1	-5.48	119.96	122.70
25	DA	2607	G	C8-N9-C1'	-5.48	119.88	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	245	G	C8-N9-C4	5.48	108.59	106.40
25	BA	795	C	N1-C2-O2	5.48	122.19	118.90
25	BA	1626	G	C4-C5-N7	-5.48	108.61	110.80
26	DB	113	G	C5-C6-O6	-5.48	125.31	128.60
1	AA	483	C	C5-C6-N1	-5.47	118.26	121.00
25	BA	855	G	C4-C5-N7	5.47	112.99	110.80
25	BA	2377	A	C4-C5-N7	5.47	113.44	110.70
1	CA	73	G	C6-C5-N7	5.47	133.69	130.40
25	DA	1129	A	N1-C2-N3	-5.47	126.56	129.30
25	DA	1216	G	C4-N9-C1'	5.47	133.62	126.50
25	DA	1353	A	C6-N1-C2	-5.47	115.31	118.60
25	DA	1661	G	N1-C6-O6	5.47	123.18	119.90
25	DA	2033	A	C5-C6-N1	5.47	120.44	117.70
25	DA	2828	C	C5-C6-N1	-5.47	118.26	121.00
25	BA	749	C	C2-N3-C4	-5.47	117.16	119.90
25	BA	1317	A	N9-C4-C5	-5.47	103.61	105.80
25	BA	2429	G	C4-C5-C6	5.47	122.08	118.80
25	DA	428	A	C8-N9-C4	-5.47	103.61	105.80
25	BA	19	C	N3-C4-N4	5.47	121.83	118.00
25	BA	1204	A	C1'-O4'-C4'	-5.47	105.52	109.90
25	BA	2033	A	C8-N9-C4	5.47	107.99	105.80
25	BA	2342	C	C6-N1-C2	-5.47	118.11	120.30
25	BA	2429	G	N1-C2-N3	5.47	127.18	123.90
25	BA	1798	U	C2-N1-C1'	-5.47	111.14	117.70
25	BA	1936	A	C5-C6-N6	-5.47	119.33	123.70
25	BA	2271	G	N3-C4-N9	5.47	129.28	126.00
25	BA	330	A	N1-C6-N6	5.47	121.88	118.60
25	DA	443	A	C5-C6-N6	5.47	128.07	123.70
25	DA	2894	G	N3-C4-C5	-5.47	125.87	128.60
1	AA	92	C	C2-N3-C4	5.47	122.63	119.90
1	AA	1531	A	N7-C8-N9	5.47	116.53	113.80
25	BA	765	G	N1-C2-N3	-5.47	120.62	123.90
25	BA	2070	G	N1-C2-N3	5.47	127.18	123.90
25	DA	676	A	O4'-C1'-N9	5.47	112.57	108.20
25	DA	2876	G	N3-C4-N9	5.47	129.28	126.00
1	AA	932	C	C6-N1-C2	-5.46	118.11	120.30
25	BA	790	C	C5-C4-N4	-5.46	116.37	120.20
25	BA	848	G	C5-C6-N1	5.46	114.23	111.50
25	BA	1442	G	N3-C2-N2	-5.46	116.08	119.90
25	BA	2444	G	N3-C2-N2	-5.46	116.08	119.90
40	BU	36	ARG	NE-CZ-NH2	-5.46	117.57	120.30
25	DA	51	G	N3-C4-N9	5.46	129.28	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	765	G	C6-C5-N7	-5.46	127.12	130.40
25	BA	1256	G	C4-N9-C1'	5.46	133.60	126.50
25	BA	1671	U	C6-N1-C2	5.46	124.28	121.00
25	BA	1838	C	C5-C4-N4	-5.46	116.38	120.20
25	BA	2055	C	C6-N1-C1'	5.46	127.36	120.80
25	BA	2571	C	C2-N3-C4	-5.46	117.17	119.90
25	BA	2680	C	N1-C2-O2	-5.46	115.62	118.90
1	CA	1424	C	C6-N1-C2	-5.46	118.11	120.30
25	DA	1758	G	N1-C6-O6	-5.46	116.62	119.90
25	DA	1909	C	C4-C5-C6	5.46	120.13	117.40
1	AA	1499	A	C4-C5-N7	5.46	113.43	110.70
25	BA	259	G	N3-C4-C5	5.46	131.33	128.60
25	BA	487	C	C5-C4-N4	-5.46	116.38	120.20
25	BA	652(E)	G	C4-C5-N7	5.46	112.98	110.80
25	BA	793	A	C4-C5-C6	5.46	119.73	117.00
25	BA	823	G	N3-C4-C5	5.46	131.33	128.60
1	CA	1290	G	C5-C6-O6	-5.46	125.32	128.60
25	DA	1983	C	C4-C5-C6	5.46	120.13	117.40
1	AA	581	G	C5-C6-N1	-5.46	108.77	111.50
25	BA	2853	C	C6-N1-C2	5.46	122.48	120.30
25	DA	1355	G	C4-C5-C6	5.46	122.08	118.80
32	DI	101	LEU	CA-CB-CG	5.46	127.86	115.30
1	AA	754	C	C2-N1-C1'	5.46	124.80	118.80
1	AA	1138	G	C5-C6-N1	5.46	114.23	111.50
25	BA	798	G	C2-N3-C4	-5.46	109.17	111.90
25	BA	1551	C	C6-N1-C2	-5.46	118.12	120.30
25	DA	307	G	N3-C4-C5	-5.46	125.87	128.60
1	AA	1285	A	N7-C8-N9	5.46	116.53	113.80
1	AA	1366	C	C6-N1-C2	-5.46	118.12	120.30
25	BA	536	A	C5-C6-N1	5.46	120.43	117.70
25	BA	1698	A	N9-C4-C5	-5.46	103.62	105.80
26	BB	104	U	N1-C2-N3	5.46	118.17	114.90
25	DA	1254	A	N7-C8-N9	5.46	116.53	113.80
25	DA	2014	A	C6-N1-C2	-5.46	115.33	118.60
25	DA	2452	C	C5-C6-N1	5.46	123.73	121.00
1	AA	598	U	C6-N1-C2	-5.46	117.73	121.00
25	BA	1527	G	N3-C4-N9	-5.46	122.73	126.00
25	BA	2038	G	C5-C6-N1	-5.46	108.77	111.50
25	BA	2274	A	C4-C5-N7	5.46	113.43	110.70
1	CA	354	G	C4-C5-N7	5.46	112.98	110.80
1	CA	460	G	C5-C6-N1	-5.46	108.77	111.50
1	AA	666	G	N3-C4-N9	-5.45	122.73	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	12	U	N1-C2-O2	5.45	126.62	122.80
25	BA	1856	G	C2-N3-C4	-5.45	109.17	111.90
25	BA	2358	G	N1-C6-O6	-5.45	116.63	119.90
25	BA	2833	G	N3-C4-C5	-5.45	125.87	128.60
1	CA	827	U	N1-C2-O2	5.45	126.62	122.80
25	DA	1655	A	C2-N3-C4	-5.45	107.87	110.60
25	DA	2454	G	N1-C6-O6	-5.45	116.63	119.90
25	BA	1641	A	C8-N9-C4	-5.45	103.62	105.80
25	DA	1856	G	C8-N9-C4	-5.45	104.22	106.40
29	DF	170	LEU	CA-CB-CG	5.45	127.84	115.30
1	AA	740	U	C6-N1-C1'	5.45	128.83	121.20
22	AY	119	LEU	CA-CB-CG	5.45	127.83	115.30
25	BA	24	G	C5-C6-O6	5.45	131.87	128.60
25	BA	772	C	C2-N3-C4	-5.45	117.17	119.90
25	BA	1190	G	N3-C2-N2	5.45	123.72	119.90
25	BA	1408	C	N3-C2-O2	5.45	125.72	121.90
25	BA	1568	G	C5-N7-C8	-5.45	101.58	104.30
1	CA	1277	C	N3-C2-O2	-5.45	118.08	121.90
25	DA	1024	G	N1-C6-O6	5.45	123.17	119.90
26	DB	103	G	C6-C5-N7	-5.45	127.13	130.40
25	BA	154	G	N7-C8-N9	5.45	115.83	113.10
25	BA	2725	A	N3-C4-C5	5.45	130.62	126.80
25	BA	2791	C	C6-N1-C1'	-5.45	114.26	120.80
1	CA	1267	C	C6-N1-C1'	-5.45	114.26	120.80
25	DA	590	A	N3-C4-C5	5.45	130.61	126.80
25	DA	1142(A)	A	C4-C5-C6	5.45	119.72	117.00
1	AA	1495	U	C5-C6-N1	5.45	125.42	122.70
25	BA	652(T)	C	C5-C6-N1	5.45	123.72	121.00
1	CA	76	C	N1-C2-O2	5.45	122.17	118.90
25	DA	2067	G	N3-C2-N2	-5.45	116.09	119.90
25	BA	1977	A	N7-C8-N9	-5.44	111.08	113.80
25	BA	2422	A	C5-C6-N1	-5.44	114.98	117.70
1	CA	481	G	N3-C4-N9	5.44	129.27	126.00
1	AA	189(B)	C	C5-C6-N1	5.44	123.72	121.00
25	BA	74	A	C5-C6-N6	5.44	128.05	123.70
25	BA	465	G	C4-C5-N7	5.44	112.98	110.80
25	BA	656	G	C6-C5-N7	-5.44	127.14	130.40
25	BA	752	A	N1-C2-N3	5.44	132.02	129.30
25	BA	1558	A	P-O3'-C3'	5.44	126.23	119.70
25	BA	2335	A	C5-C6-N6	5.44	128.05	123.70
25	BA	2373	G	N1-C2-N3	5.44	127.17	123.90
45	BZ	67	LEU	CA-CB-CG	5.44	127.82	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	B0	25	ARG	NE-CZ-NH2	-5.44	117.58	120.30
1	CA	1141	C	C6-N1-C1'	5.44	127.33	120.80
1	CA	1195	C	C6-N1-C2	-5.44	118.12	120.30
25	DA	442	G	N1-C6-O6	-5.44	116.63	119.90
25	DA	932	G	C4-C5-N7	-5.44	108.62	110.80
25	DA	1440	G	C5-C6-O6	5.44	131.87	128.60
25	DA	1656	C	C6-N1-C2	-5.44	118.12	120.30
1	AA	741	G	N9-C4-C5	-5.44	103.22	105.40
25	BA	34	C	C2-N3-C4	5.44	122.62	119.90
25	BA	1193	G	C6-C5-N7	-5.44	127.14	130.40
25	BA	1424	G	C8-N9-C4	5.44	108.58	106.40
25	BA	1791	A	N1-C2-N3	5.44	132.02	129.30
25	BA	2026	C	C2-N3-C4	-5.44	117.18	119.90
25	BA	2252	G	N1-C2-N2	-5.44	111.30	116.20
25	DA	888	C	C5-C6-N1	5.44	123.72	121.00
1	AA	1116	C	C6-N1-C2	5.44	122.48	120.30
1	AA	1519	A	C4-C5-N7	-5.44	107.98	110.70
25	BA	266	G	C4-C5-N7	5.44	112.98	110.80
25	BA	1376	C	N3-C4-C5	5.44	124.08	121.90
25	DA	1192	G	C4-C5-N7	5.44	112.98	110.80
25	DA	2272	U	C6-N1-C2	-5.44	117.74	121.00
25	DA	2429	G	C6-C5-N7	-5.44	127.14	130.40
25	BA	183	C	C5-C6-N1	-5.44	118.28	121.00
25	BA	309	G	N3-C2-N2	5.44	123.71	119.90
25	BA	1198	U	C6-N1-C2	-5.44	117.74	121.00
25	BA	1334	G	C4-N9-C1'	5.44	133.57	126.50
25	BA	1378	A	C2-N3-C4	-5.44	107.88	110.60
25	BA	1584	C	C6-N1-C2	-5.44	118.12	120.30
25	DA	269	U	C2-N1-C1'	5.44	124.22	117.70
25	DA	620	G	N3-C4-C5	-5.44	125.88	128.60
1	AA	1282	C	C5-C4-N4	-5.44	116.39	120.20
1	AA	1384	C	C6-N1-C2	-5.44	118.13	120.30
14	AN	44	LEU	CB-CG-CD1	5.44	120.24	111.00
25	BA	2271	G	C6-C5-N7	-5.44	127.14	130.40
25	DA	1240	U	C6-N1-C2	-5.44	117.74	121.00
1	AA	832	C	C6-N1-C1'	-5.43	114.28	120.80
25	BA	121	G	C6-N1-C2	-5.43	121.84	125.10
25	BA	1850	G	C8-N9-C4	-5.43	104.23	106.40
25	BA	2647	U	N1-C2-O2	5.43	126.60	122.80
1	CA	446	G	C8-N9-C4	-5.43	104.23	106.40
25	DA	92	A	N1-C6-N6	5.43	121.86	118.60
25	DA	1678	G	N3-C4-C5	-5.43	125.88	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1781	C	N1-C2-O2	5.43	122.16	118.90
25	BA	930	U	N3-C4-O4	5.43	123.20	119.40
25	BA	1107	G	C5-C6-N1	5.43	114.22	111.50
25	BA	2001	A	C8-N9-C4	-5.43	103.63	105.80
25	BA	2675	A	C4-C5-N7	-5.43	107.98	110.70
50	B4	24	THR	N-CA-C	-5.43	96.33	111.00
1	CA	496	A	N1-C6-N6	5.43	121.86	118.60
1	CA	806	C	N1-C2-O2	5.43	122.16	118.90
1	CA	1523	G	N1-C6-O6	-5.43	116.64	119.90
25	DA	659	C	N3-C4-C5	5.43	124.07	121.90
25	DA	925	C	N3-C4-N4	-5.43	114.20	118.00
25	DA	1681	G	N3-C4-C5	5.43	131.32	128.60
1	AA	1502	A	C4-C5-C6	5.43	119.72	117.00
25	BA	288	C	N3-C4-N4	5.43	121.80	118.00
25	BA	521	G	C6-N1-C2	-5.43	121.84	125.10
25	BA	692	C	C5-C4-N4	-5.43	116.40	120.20
1	AA	63	C	C5-C6-N1	5.43	123.71	121.00
1	AA	521	G	N1-C6-O6	-5.43	116.64	119.90
25	BA	1437	C	C4-C5-C6	5.43	120.11	117.40
25	BA	2334	G	N3-C2-N2	5.43	123.70	119.90
25	BA	2482	G	C4-N9-C1'	5.43	133.56	126.50
26	BB	38	C	C2-N3-C4	-5.43	117.19	119.90
25	DA	2522	U	C5-C6-N1	-5.43	119.98	122.70
25	DA	2583	G	N9-C4-C5	5.43	107.57	105.40
25	DA	2599	G	N3-C4-N9	-5.43	122.74	126.00
25	BA	119	A	C4-C5-N7	-5.43	107.99	110.70
25	BA	2228	G	C6-C5-N7	-5.43	127.14	130.40
32	BI	31	LEU	CA-CB-CG	-5.43	102.81	115.30
1	CA	946	A	C4-C5-C6	5.43	119.71	117.00
25	DA	1347	G	N3-C4-N9	-5.43	122.74	126.00
25	BA	505	A	N1-C2-N3	5.43	132.01	129.30
25	BA	1109	C	C4-C5-C6	5.43	120.11	117.40
25	BA	1220	A	N1-C6-N6	-5.43	115.34	118.60
25	BA	1363	C	C2-N3-C4	-5.43	117.19	119.90
25	BA	1579	A	C4-C5-C6	5.43	119.71	117.00
25	BA	1616	A	C6-C5-N7	-5.43	128.50	132.30
25	BA	2867	G	C5-C6-N1	-5.43	108.79	111.50
1	CA	435	C	N1-C2-O2	5.43	122.16	118.90
25	DA	479	A	C2-N3-C4	5.43	113.31	110.60
25	DA	518	G	C8-N9-C4	-5.43	104.23	106.40
25	DA	1666	G	N1-C6-O6	5.43	123.16	119.90
1	AA	541	G	C8-N9-C1'	5.42	134.05	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1288	A	N1-C6-N6	-5.42	115.34	118.60
1	AA	1499	A	N1-C6-N6	5.42	121.86	118.60
25	BA	179	G	C2-N3-C4	-5.42	109.19	111.90
25	BA	842	G	C5-C6-N1	5.42	114.21	111.50
25	BA	2783	G	N9-C4-C5	-5.42	103.23	105.40
1	CA	976	G	C4-N9-C1'	5.42	133.55	126.50
25	DA	592	G	C6-C5-N7	-5.42	127.14	130.40
25	DA	760	G	N3-C4-C5	-5.42	125.89	128.60
1	AA	794	A	N1-C2-N3	5.42	132.01	129.30
1	AA	1077	G	N1-C6-O6	5.42	123.15	119.90
25	BA	2767	C	C5-C6-N1	-5.42	118.29	121.00
25	DA	1319	G	N7-C8-N9	5.42	115.81	113.10
25	DA	1767	C	N1-C2-N3	5.42	123.00	119.20
25	BA	122	G	C8-N9-C1'	-5.42	119.95	127.00
25	BA	827	U	N3-C4-C5	5.42	117.85	114.60
25	BA	1193	G	C6-N1-C2	-5.42	121.85	125.10
25	BA	1478	G	N3-C4-C5	-5.42	125.89	128.60
1	CA	863	U	C5-C4-O4	5.42	129.15	125.90
1	CA	1225	A	N7-C8-N9	5.42	116.51	113.80
1	CA	1286	A	C8-N9-C4	-5.42	103.63	105.80
1	CA	1526	G	C8-N9-C4	5.42	108.57	106.40
25	BA	2823	A	N1-C2-N3	5.42	132.01	129.30
25	BA	2872	G	N1-C6-O6	5.42	123.15	119.90
25	BA	2879	C	N1-C2-O2	5.42	122.15	118.90
1	CA	481	G	C6-C5-N7	-5.42	127.15	130.40
25	BA	312	G	N1-C6-O6	5.42	123.15	119.90
25	BA	394	A	N7-C8-N9	-5.42	111.09	113.80
25	BA	2754	U	C5-C4-O4	-5.42	122.65	125.90
26	BB	71	C	C2-N3-C4	-5.42	117.19	119.90
1	CA	129(A)	G	C2-N3-C4	-5.42	109.19	111.90
25	DA	1143	A	C4-C5-C6	5.42	119.71	117.00
25	DA	2700	C	C2-N3-C4	-5.42	117.19	119.90
1	AA	479	C	N3-C4-C5	-5.42	119.73	121.90
1	AA	1019	C	C6-N1-C1'	5.42	127.30	120.80
23	AV	7	G	N3-C4-N9	-5.42	122.75	126.00
25	BA	798	G	N1-C6-O6	-5.42	116.65	119.90
25	DA	489	G	C5-C6-O6	5.42	131.85	128.60
25	DA	507	A	C8-N9-C4	5.42	107.97	105.80
25	DA	662	G	C8-N9-C4	5.42	108.57	106.40
25	DA	1681	G	N3-C4-N9	-5.42	122.75	126.00
1	AA	547	A	N1-C6-N6	-5.41	115.35	118.60
25	BA	583	G	C8-N9-C4	-5.41	104.23	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	916	G	C6-C5-N7	-5.41	127.15	130.40
25	BA	943	U	N3-C4-C5	-5.41	111.35	114.60
25	BA	1310	G	C8-N9-C4	5.41	108.56	106.40
25	DA	743	G	C5-C6-O6	-5.41	125.35	128.60
25	DA	797	C	N3-C4-C5	-5.41	119.73	121.90
25	BA	71	A	N1-C6-N6	5.41	121.85	118.60
25	BA	1308	A	C5-C6-N6	5.41	128.03	123.70
25	BA	2603	G	C4-C5-N7	5.41	112.97	110.80
1	CA	953	G	N3-C4-C5	-5.41	125.89	128.60
25	DA	2281	C	C6-N1-C2	-5.41	118.14	120.30
1	AA	342	C	N3-C2-O2	-5.41	118.11	121.90
1	AA	1277	C	C6-N1-C2	-5.41	118.14	120.30
25	BA	614	U	N3-C4-O4	-5.41	115.61	119.40
25	BA	682	G	C8-N9-C1'	-5.41	119.97	127.00
25	BA	1141	U	C5-C4-O4	5.41	129.15	125.90
25	BA	1187	G	N7-C8-N9	5.41	115.81	113.10
25	BA	1632	A	C4-C5-N7	5.41	113.41	110.70
25	BA	1968	G	C5-N7-C8	-5.41	101.59	104.30
25	BA	2318	G	C4-N9-C1'	5.41	133.53	126.50
25	BA	2602	A	C5-C6-N6	-5.41	119.37	123.70
25	BA	124	G	C8-N9-C4	5.41	108.56	106.40
25	BA	197	A	C8-N9-C4	-5.41	103.64	105.80
25	BA	516	C	C5-C4-N4	-5.41	116.41	120.20
25	BA	542	C	C6-N1-C2	5.41	122.46	120.30
25	BA	797	C	C4-C5-C6	5.41	120.10	117.40
26	BB	79	C	N3-C2-O2	-5.41	118.11	121.90
1	CA	1518	A	C4-C5-C6	5.41	119.70	117.00
25	DA	945	A	C4-C5-C6	5.41	119.70	117.00
26	DB	74	U	C5-C4-O4	5.41	129.15	125.90
1	AA	677	U	N1-C2-O2	-5.41	119.02	122.80
25	BA	752	A	N1-C6-N6	-5.41	115.36	118.60
25	DA	271	A	C8-N9-C4	5.41	107.96	105.80
25	BA	564	C	C4-C5-C6	-5.41	114.70	117.40
25	BA	724	U	N3-C4-O4	5.41	123.18	119.40
25	BA	2767	C	C6-N1-C2	-5.41	118.14	120.30
1	CA	1378	C	C6-N1-C2	-5.41	118.14	120.30
1	CA	1401	G	C5-N7-C8	-5.41	101.60	104.30
25	DA	1765	C	C5-C6-N1	5.41	123.70	121.00
25	DA	2040	C	C6-N1-C2	5.41	122.46	120.30
25	BA	622	G	C8-N9-C1'	-5.40	119.97	127.00
25	BA	1387	C	C6-N1-C2	-5.40	118.14	120.30
25	BA	1406	U	C2-N3-C4	-5.40	123.76	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	299	G	C4-C5-C6	5.40	122.04	118.80
25	DA	533	G	N1-C2-N3	5.40	127.14	123.90
25	DA	1617	C	N1-C2-O2	-5.40	115.66	118.90
1	AA	238	G	C8-N9-C4	5.40	108.56	106.40
25	BA	133	C	C2-N1-C1'	-5.40	112.86	118.80
25	BA	260	G	N9-C4-C5	5.40	107.56	105.40
25	BA	726	G	N1-C2-N2	-5.40	111.34	116.20
25	BA	988	A	N1-C2-N3	5.40	132.00	129.30
25	BA	1252	G	N7-C8-N9	-5.40	110.40	113.10
25	BA	1560	G	C4-C5-N7	-5.40	108.64	110.80
26	BB	116	G	C8-N9-C1'	-5.40	119.98	127.00
25	DA	142	A	N1-C6-N6	-5.40	115.36	118.60
25	DA	806	C	C2-N1-C1'	5.40	124.74	118.80
25	DA	1395	A	N9-C4-C5	5.40	107.96	105.80
25	DA	1997	G	C6-N1-C2	-5.40	121.86	125.10
25	DA	2066	C	N3-C4-N4	5.40	121.78	118.00
25	DA	2831	G	C8-N9-C4	5.40	108.56	106.40
25	BA	678	C	N3-C4-N4	5.40	121.78	118.00
25	BA	939	G	N1-C2-N2	-5.40	111.34	116.20
25	BA	1767	C	C2-N3-C4	-5.40	117.20	119.90
25	DA	127	A	C8-N9-C4	5.40	107.96	105.80
25	DA	139(A)	G	N3-C4-C5	-5.40	125.90	128.60
25	DA	265	A	C4-N9-C1'	5.40	136.02	126.30
25	BA	2356	C	C6-N1-C2	-5.40	118.14	120.30
25	DA	2244	U	C4-C5-C6	5.40	122.94	119.70
1	AA	260	G	N3-C4-C5	5.40	131.30	128.60
1	AA	1129	C	N3-C2-O2	-5.40	118.12	121.90
25	BA	1382	G	N1-C6-O6	5.40	123.14	119.90
25	BA	2446	G	C5-C6-O6	-5.40	125.36	128.60
46	B0	44	ARG	NE-CZ-NH1	-5.40	117.60	120.30
55	B9	19	ARG	NE-CZ-NH1	-5.40	117.60	120.30
25	DA	733	G	C8-N9-C1'	-5.40	119.98	127.00
25	DA	1650	G	N1-C6-O6	5.40	123.14	119.90
1	AA	1364	U	N3-C4-O4	-5.40	115.62	119.40
25	BA	1847	A	C2-N3-C4	5.40	113.30	110.60
25	BA	2345	G	C6-C5-N7	-5.40	127.16	130.40
1	CA	129(A)	G	C8-N9-C1'	-5.40	119.99	127.00
25	DA	1791	A	C5-C6-N6	-5.40	119.38	123.70
25	DA	2191	G	N3-C4-N9	-5.40	122.76	126.00
1	AA	108	G	N1-C6-O6	5.39	123.14	119.90
1	AA	501	C	C6-N1-C2	-5.39	118.14	120.30
25	BA	692	C	N1-C2-O2	-5.39	115.66	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1807	G	C4-C5-N7	5.39	112.96	110.80
25	BA	2644	G	N9-C4-C5	5.39	107.56	105.40
1	CA	728	A	N1-C2-N3	5.39	132.00	129.30
25	DA	425	G	C4-N9-C1'	5.39	133.51	126.50
1	AA	260	G	N3-C4-N9	-5.39	122.76	126.00
25	BA	22	C	N3-C4-C5	5.39	124.06	121.90
25	BA	90	U	N3-C4-C5	-5.39	111.36	114.60
25	BA	2260	C	C5-C6-N1	-5.39	118.30	121.00
25	BA	2853	C	C5-C6-N1	-5.39	118.30	121.00
1	CA	1391	U	N3-C2-O2	-5.39	118.42	122.20
25	DA	702	G	C8-N9-C4	5.39	108.56	106.40
25	DA	979	G	N7-C8-N9	5.39	115.80	113.10
25	DA	2022	U	N1-C2-O2	-5.39	119.03	122.80
1	AA	505	G	C5-N7-C8	-5.39	101.61	104.30
1	AA	1252	A	N1-C6-N6	-5.39	115.36	118.60
25	BA	1619	G	N3-C2-N2	-5.39	116.13	119.90
25	BA	1755	A	N1-C6-N6	-5.39	115.36	118.60
25	BA	2572	A	N1-C6-N6	5.39	121.83	118.60
25	DA	761	A	C5-N7-C8	5.39	106.59	103.90
25	BA	124	G	N3-C4-C5	5.39	131.29	128.60
25	BA	449	A	N1-C6-N6	5.39	121.83	118.60
25	BA	494	G	C6-N1-C2	-5.39	121.87	125.10
25	BA	579	G	C8-N9-C4	-5.39	104.24	106.40
25	BA	872	A	N1-C2-N3	5.39	132.00	129.30
25	BA	933	A	C5-C6-N6	-5.39	119.39	123.70
25	BA	990	A	C5-N7-C8	-5.39	101.21	103.90
25	DA	2304	G	C8-N9-C4	-5.39	104.24	106.40
25	DA	2621	A	N1-C2-N3	5.39	131.99	129.30
1	AA	421	U	N1-C2-O2	5.39	126.57	122.80
1	AA	1087	G	N7-C8-N9	5.39	115.79	113.10
25	BA	521	G	N3-C4-C5	-5.39	125.91	128.60
25	BA	2339	G	N1-C6-O6	5.39	123.13	119.90
25	DA	928	G	C4-N9-C1'	5.39	133.50	126.50
25	DA	1779	U	C2-N1-C1'	5.39	124.17	117.70
1	AA	1232	U	C5-C4-O4	-5.39	122.67	125.90
25	BA	1142(A)	A	C8-N9-C1'	5.39	137.40	127.70
25	BA	1626	G	N9-C4-C5	5.39	107.56	105.40
1	CA	325	A	N1-C6-N6	-5.39	115.37	118.60
1	AA	1354	C	N3-C2-O2	-5.38	118.13	121.90
25	BA	266	G	C6-C5-N7	-5.38	127.17	130.40
25	BA	1818	U	N1-C2-N3	5.38	118.13	114.90
25	BA	2542	A	C6-N1-C2	5.38	121.83	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	B7	47	ARG	NE-CZ-NH2	-5.38	117.61	120.30
25	DA	833	U	N1-C2-O2	-5.38	119.03	122.80
25	DA	1569	A	C8-N9-C4	-5.38	103.65	105.80
25	DA	2583	G	C8-N9-C4	-5.38	104.25	106.40
25	BA	529	A	C6-C5-N7	-5.38	128.53	132.30
25	BA	1030	G	C4-C5-N7	5.38	112.95	110.80
25	BA	2828	C	N3-C4-C5	5.38	124.05	121.90
1	CA	915	A	N1-C6-N6	-5.38	115.37	118.60
1	CA	1223	C	N1-C2-O2	5.38	122.13	118.90
1	AA	1067	A	C8-N9-C4	-5.38	103.65	105.80
1	AA	1298	C	N1-C2-O2	5.38	122.13	118.90
25	BA	1018	C	C6-N1-C2	5.38	122.45	120.30
25	BA	1889	A	C6-C5-N7	-5.38	128.53	132.30
25	BA	2586	C	C5-C4-N4	-5.38	116.43	120.20
26	BB	16	G	N3-C2-N2	5.38	123.67	119.90
25	DA	614(C)	A	N1-C6-N6	-5.38	115.37	118.60
26	DB	90	A	C8-N9-C4	5.38	107.95	105.80
25	BA	2540	C	C5-C6-N1	-5.38	118.31	121.00
25	DA	855	G	C6-C5-N7	-5.38	127.17	130.40
25	BA	113	G	N1-C2-N2	5.38	121.04	116.20
25	BA	1990	C	C6-N1-C2	-5.38	118.15	120.30
25	BA	2362	G	N1-C2-N2	-5.38	111.36	116.20
25	BA	2513	G	C5-C6-O6	-5.38	125.37	128.60
1	CA	1133	G	C5-C6-O6	5.38	131.83	128.60
25	DA	1264	G	C2-N3-C4	-5.38	109.21	111.90
25	DA	1638	C	C5-C6-N1	-5.38	118.31	121.00
25	BA	704	G	N3-C2-N2	-5.38	116.14	119.90
25	BA	720	C	C6-N1-C2	5.38	122.45	120.30
25	BA	1278	A	C2-N3-C4	-5.38	107.91	110.60
25	BA	2557	G	C6-C5-N7	-5.38	127.17	130.40
1	CA	728	A	C4-C5-C6	5.38	119.69	117.00
25	DA	1558	A	C5-N7-C8	-5.38	101.21	103.90
25	DA	2581	G	N3-C4-C5	-5.38	125.91	128.60
25	BA	27	G	C6-C5-N7	-5.38	127.17	130.40
25	BA	2492	U	N1-C2-O2	5.38	126.56	122.80
25	DA	76	C	C6-N1-C2	-5.38	118.15	120.30
25	DA	1587	A	C2-N3-C4	5.38	113.29	110.60
1	AA	713	G	N3-C4-C5	-5.37	125.91	128.60
25	BA	202	U	C6-N1-C2	5.37	124.22	121.00
25	BA	1334	G	C5-C6-N1	-5.37	108.81	111.50
25	BA	1389	G	C5-C6-N1	-5.37	108.81	111.50
25	BA	1561	G	C4-C5-N7	5.37	112.95	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1815	A	N9-C4-C5	5.37	107.95	105.80
25	BA	2327	A	C2-N3-C4	5.37	113.29	110.60
25	BA	2353	G	C8-N9-C4	5.37	108.55	106.40
25	DA	517	C	C5-C4-N4	-5.37	116.44	120.20
25	DA	745	G	C5-C6-N1	-5.37	108.81	111.50
25	DA	1960	A	C2-N3-C4	-5.37	107.91	110.60
26	DB	25	A	N1-C6-N6	5.37	121.82	118.60
25	BA	147	U	C5-C6-N1	-5.37	120.02	122.70
25	BA	499	U	C6-N1-C2	-5.37	117.78	121.00
25	BA	702	G	N7-C8-N9	-5.37	110.42	113.10
25	BA	1828	G	C8-N9-C4	5.37	108.55	106.40
25	DA	488	G	C5-N7-C8	5.37	106.99	104.30
25	DA	2384	G	N1-C6-O6	5.37	123.12	119.90
1	AA	1264	C	C2-N1-C1'	5.37	124.71	118.80
1	CA	320	C	C2-N1-C1'	-5.37	112.89	118.80
1	CA	865	A	C8-N9-C4	-5.37	103.65	105.80
25	DA	893	C	C2-N1-C1'	5.37	124.71	118.80
25	DA	1644	C	N3-C2-O2	-5.37	118.14	121.90
25	BA	53	A	C6-N1-C2	-5.37	115.38	118.60
25	BA	747	U	N3-C4-O4	5.37	123.16	119.40
26	BB	89	G	C8-N9-C4	-5.37	104.25	106.40
25	DA	428	A	N3-C4-C5	-5.37	123.04	126.80
25	DA	1265	A	C2-N3-C4	-5.37	107.92	110.60
25	DA	2018	G	C8-N9-C4	-5.37	104.25	106.40
25	BA	80	G	N3-C2-N2	-5.37	116.14	119.90
25	BA	886	C	N1-C2-O2	5.37	122.12	118.90
25	BA	2851	A	N9-C4-C5	-5.37	103.65	105.80
1	AA	734	G	C6-N1-C2	5.37	128.32	125.10
25	BA	115	C	N3-C2-O2	5.37	125.66	121.90
25	BA	678	C	C5-C4-N4	-5.37	116.44	120.20
25	BA	952	G	C5-C6-O6	-5.37	125.38	128.60
25	BA	953	A	N1-C6-N6	-5.37	115.38	118.60
25	BA	2676	C	C5-C4-N4	-5.37	116.44	120.20
25	BA	2703	C	C2-N3-C4	-5.37	117.22	119.90
25	BA	2835	A	N1-C2-N3	5.37	131.98	129.30
25	DA	668	G	N1-C6-O6	5.37	123.12	119.90
25	DA	1899	G	N9-C4-C5	-5.37	103.25	105.40
23	AV	75	C	C2-N3-C4	-5.36	117.22	119.90
25	BA	827	U	N1-C2-O2	-5.36	119.05	122.80
25	BA	1577	C	C4-C5-C6	5.36	120.08	117.40
25	BA	1695	G	C4-N9-C1'	5.36	133.47	126.50
28	BE	72	VAL	N-CA-C	5.36	125.48	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	865	A	C4-C5-N7	5.36	113.38	110.70
1	CA	1467	G	N3-C4-N9	-5.36	122.78	126.00
25	DA	494	G	C8-N9-C4	5.36	108.55	106.40
25	DA	962	G	C6-C5-N7	-5.36	127.18	130.40
25	DA	1216	G	C8-N9-C1'	-5.36	120.03	127.00
25	DA	1372	U	C5-C4-O4	-5.36	122.68	125.90
25	BA	642	G	C8-N9-C4	-5.36	104.25	106.40
25	BA	1751	C	N1-C2-O2	-5.36	115.68	118.90
25	BA	1982	C	C2-N1-C1'	5.36	124.70	118.80
25	BA	2349	G	C8-N9-C4	-5.36	104.25	106.40
1	CA	119	A	P-O3'-C3'	5.36	126.14	119.70
1	CA	372	C	N3-C4-C5	5.36	124.05	121.90
1	AA	804	U	C2-N3-C4	-5.36	123.78	127.00
25	BA	776	G	C4-C5-N7	-5.36	108.66	110.80
25	BA	974	G	C5-C6-N1	5.36	114.18	111.50
25	BA	2501	C	N3-C4-N4	-5.36	114.25	118.00
25	DA	2099	U	C6-N1-C2	-5.36	117.78	121.00
25	BA	146	G	N9-C4-C5	-5.36	103.26	105.40
25	BA	1107	G	N7-C8-N9	5.36	115.78	113.10
25	BA	1163	G	C5-C6-O6	-5.36	125.39	128.60
25	BA	2422	A	C2-N3-C4	-5.36	107.92	110.60
25	DA	930	U	C6-N1-C2	5.36	124.22	121.00
25	DA	2771	C	N1-C2-O2	5.36	122.11	118.90
1	AA	494	U	N3-C4-C5	5.36	117.81	114.60
1	AA	836	G	C4-C5-N7	5.36	112.94	110.80
25	BA	590	A	N1-C2-N3	5.36	131.98	129.30
25	BA	1653	G	C4-N9-C1'	5.36	133.46	126.50
25	BA	1773	A	C4-C5-C6	5.36	119.68	117.00
25	BA	2286	A	C5-C6-N1	-5.36	115.02	117.70
1	CA	682	G	C8-N9-C4	-5.36	104.26	106.40
25	DA	1832	C	N3-C2-O2	5.36	125.65	121.90
25	DA	1839	G	C8-N9-C4	5.36	108.54	106.40
23	AV	69	C	N1-C2-O2	5.36	122.11	118.90
25	BA	555	U	N3-C2-O2	5.36	125.95	122.20
25	BA	2447	G	N9-C4-C5	-5.36	103.26	105.40
25	BA	2769	C	N1-C2-N3	5.36	122.95	119.20
25	BA	2823	A	C5-C6-N6	-5.36	119.42	123.70
1	CA	1441	G	N3-C4-C5	-5.36	125.92	128.60
25	BA	656	G	C4-C5-C6	5.35	122.01	118.80
25	BA	1561	G	C5-C6-O6	-5.35	125.39	128.60
25	BA	2606	C	C5-C6-N1	-5.35	118.32	121.00
1	CA	240	C	N3-C4-N4	-5.35	114.25	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	747	U	C5-C4-O4	-5.35	122.69	125.90
25	DA	1273	U	C4-C5-C6	5.35	122.91	119.70
25	DA	2360	A	C8-N9-C4	5.35	107.94	105.80
25	DA	2503	A	C5-C6-N1	5.35	120.38	117.70
1	AA	102	G	C8-N9-C4	-5.35	104.26	106.40
1	AA	280	C	C6-N1-C2	5.35	122.44	120.30
1	AA	1335	C	C6-N1-C2	5.35	122.44	120.30
25	BA	921	G	N3-C4-C5	-5.35	125.92	128.60
25	BA	1321	A	C4-C5-C6	5.35	119.68	117.00
25	BA	1800	C	N3-C2-O2	5.35	125.65	121.90
1	CA	305	G	C5-C6-O6	5.35	131.81	128.60
25	DA	506	G	C5-C6-O6	-5.35	125.39	128.60
25	DA	1519	G	C8-N9-C4	-5.35	104.26	106.40
25	DA	1936	A	N1-C6-N6	5.35	121.81	118.60
1	AA	660	G	C6-C5-N7	-5.35	127.19	130.40
25	BA	1144	G	C5-C6-N1	5.35	114.18	111.50
25	DA	2235	G	C8-N9-C4	-5.35	104.26	106.40
25	DA	2394	C	N3-C2-O2	-5.35	118.15	121.90
25	BA	1259	G	N1-C2-N3	5.35	127.11	123.90
25	BA	2206	G	C4-N9-C1'	-5.35	119.55	126.50
25	BA	2640	G	C4-C5-N7	-5.35	108.66	110.80
25	DA	2373	G	N7-C8-N9	-5.35	110.42	113.10
1	AA	529	G	N3-C4-N9	5.35	129.21	126.00
1	AA	1293	G	N3-C4-N9	5.35	129.21	126.00
25	BA	197	A	C5-C6-N1	-5.35	115.03	117.70
25	BA	259	G	C6-C5-N7	-5.35	127.19	130.40
25	BA	2727	G	N1-C6-O6	5.35	123.11	119.90
25	DA	188	G	N1-C6-O6	5.35	123.11	119.90
25	DA	1277	G	C4-N9-C1'	-5.35	119.55	126.50
25	DA	2405	G	C4-N9-C1'	5.35	133.45	126.50
1	AA	1370	G	N1-C6-O6	5.35	123.11	119.90
25	BA	967	C	C6-N1-C2	5.35	122.44	120.30
25	DA	895	U	C5-C6-N1	5.35	125.37	122.70
1	AA	1282	C	N1-C2-O2	5.34	122.11	118.90
23	AV	21	A	N1-C6-N6	-5.34	115.39	118.60
25	BA	12	U	C6-N1-C2	-5.34	117.79	121.00
25	BA	17	G	C2-N3-C4	5.34	114.57	111.90
25	BA	216	A	C2-N3-C4	-5.34	107.93	110.60
25	BA	758	C	C2-N3-C4	-5.34	117.23	119.90
25	BA	1116	C	C6-N1-C1'	-5.34	114.39	120.80
26	BB	112	U	C4-C5-C6	5.34	122.91	119.70
1	CA	1133	G	N3-C4-C5	5.34	131.27	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1322	A	C2-N3-C4	-5.34	107.93	110.60
25	DA	1687	G	N1-C6-O6	-5.34	116.69	119.90
47	D1	21	ARG	NE-CZ-NH1	5.34	122.97	120.30
25	BA	2440	C	C5-C6-N1	-5.34	118.33	121.00
1	CA	728	A	N9-C4-C5	5.34	107.94	105.80
23	AV	8	U	C5-C4-O4	5.34	129.10	125.90
25	BA	434	U	C5-C6-N1	-5.34	120.03	122.70
25	BA	638	G	C8-N9-C4	-5.34	104.26	106.40
25	BA	2091	U	N3-C4-C5	-5.34	111.39	114.60
25	BA	2253	G	C4-C5-N7	5.34	112.94	110.80
1	AA	1236	A	C8-N9-C4	5.34	107.94	105.80
25	BA	272	G	C2-N3-C4	5.34	114.57	111.90
25	BA	318	C	N3-C2-O2	-5.34	118.16	121.90
25	BA	1597	A	C5-C6-N6	-5.34	119.43	123.70
26	BB	116	G	N1-C2-N2	-5.34	111.39	116.20
25	DA	1831	G	C8-N9-C4	-5.34	104.26	106.40
25	DA	2541	A	N1-C6-N6	5.34	121.80	118.60
25	DA	2622	C	C2-N1-C1'	-5.34	112.93	118.80
25	BA	201	C	C5-C6-N1	-5.34	118.33	121.00
25	BA	790	C	N1-C2-N3	-5.34	115.46	119.20
25	BA	1129	A	C6-N1-C2	-5.34	115.40	118.60
25	DA	1964	G	C4-N9-C1'	5.34	133.44	126.50
1	AA	496	A	C4-C5-C6	5.34	119.67	117.00
25	BA	1145	C	N3-C4-N4	5.34	121.74	118.00
25	BA	1970	A	C4-N9-C1'	5.34	135.91	126.30
1	CA	483	C	C6-N1-C2	5.34	122.44	120.30
25	DA	1330	C	N3-C2-O2	5.34	125.64	121.90
23	AV	12	G	C6-C5-N7	5.33	133.60	130.40
25	BA	1395	A	N9-C4-C5	5.33	107.93	105.80
25	BA	1627	G	C5-C6-N1	-5.33	108.83	111.50
25	BA	2076	U	C4-C5-C6	5.33	122.90	119.70
25	DA	2714	G	N3-C2-N2	-5.33	116.17	119.90
1	AA	365	U	C5-C4-O4	5.33	129.10	125.90
25	BA	173	G	C5-C6-O6	-5.33	125.40	128.60
25	BA	430	G	C5-C6-O6	-5.33	125.40	128.60
25	BA	591	C	C5-C6-N1	-5.33	118.33	121.00
25	BA	646	A	C2-N3-C4	-5.33	107.93	110.60
25	BA	1265	A	N1-C2-N3	5.33	131.97	129.30
25	BA	1383	C	N3-C4-N4	5.33	121.73	118.00
25	BA	1587	A	C6-N1-C2	-5.33	115.40	118.60
25	BA	2037	G	N3-C4-C5	-5.33	125.93	128.60
1	CA	776	G	N9-C4-C5	5.33	107.53	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	482	A	C8-N9-C4	5.33	107.93	105.80
25	DA	1305	C	C5-C6-N1	5.33	123.67	121.00
25	DA	1999	C	C2-N3-C4	-5.33	117.23	119.90
25	BA	745	G	N1-C6-O6	5.33	123.10	119.90
25	BA	1125	G	C5-C6-O6	5.33	131.80	128.60
25	BA	1833	U	C6-N1-C2	-5.33	117.80	121.00
25	BA	1901	A	N1-C6-N6	-5.33	115.40	118.60
25	BA	2605	U	C2-N3-C4	5.33	130.20	127.00
1	CA	894	G	C8-N9-C4	5.33	108.53	106.40
1	AA	1225	A	N7-C8-N9	5.33	116.47	113.80
25	BA	1588	C	C2-N1-C1'	5.33	124.66	118.80
25	BA	1649	G	N1-C6-O6	5.33	123.10	119.90
25	BA	2339	G	C8-N9-C4	5.33	108.53	106.40
1	CA	299	G	C2-N3-C4	-5.33	109.23	111.90
1	AA	117	G	N3-C2-N2	-5.33	116.17	119.90
1	AA	1070	U	N3-C2-O2	5.33	125.93	122.20
25	BA	78	A	C5-C6-N6	-5.33	119.44	123.70
25	BA	885	C	N1-C2-O2	5.33	122.10	118.90
25	BA	2250	G	N7-C8-N9	5.33	115.76	113.10
26	BB	26	A	C2-N3-C4	-5.33	107.94	110.60
1	CA	965	A	C8-N9-C4	5.33	107.93	105.80
25	DA	1320	C	N1-C2-O2	-5.33	115.70	118.90
25	DA	1353	A	N1-C6-N6	-5.33	115.40	118.60
25	DA	2515	C	C6-N1-C2	-5.33	118.17	120.30
1	CA	305	G	N1-C2-N3	5.33	127.10	123.90
25	DA	2766	G	C4-C5-N7	5.33	112.93	110.80
28	DE	78	LEU	CA-CB-CG	5.33	127.55	115.30
25	BA	143	G	N1-C6-O6	-5.33	116.70	119.90
25	BA	2055	C	C2-N1-C1'	-5.33	112.94	118.80
25	BA	2755	C	C2-N3-C4	5.33	122.56	119.90
23	CV	28	C	C5-C6-N1	5.33	123.66	121.00
1	AA	44	G	C6-C5-N7	-5.32	127.21	130.40
25	BA	432	A	N9-C4-C5	-5.32	103.67	105.80
25	BA	1623	G	C4-C5-N7	5.32	112.93	110.80
25	BA	2501	C	N3-C2-O2	-5.32	118.17	121.90
25	BA	2523	G	N3-C2-N2	-5.32	116.17	119.90
25	BA	2747	G	C6-C5-N7	-5.32	127.21	130.40
1	CA	1120	G	C8-N9-C4	-5.32	104.27	106.40
25	DA	1675	C	C5-C4-N4	5.32	123.93	120.20
1	AA	928	G	N9-C4-C5	-5.32	103.27	105.40
26	BB	75	G	C4-C5-C6	5.32	121.99	118.80
1	CA	802	A	N7-C8-N9	5.32	116.46	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	884	U	N3-C4-O4	5.32	123.13	119.40
1	AA	47	C	C4-C5-C6	5.32	120.06	117.40
1	AA	916	G	N1-C6-O6	5.32	123.09	119.90
25	BA	1573	G	C4-N9-C1'	-5.32	119.58	126.50
25	BA	2579	C	N3-C2-O2	-5.32	118.17	121.90
1	CA	863	U	C2-N1-C1'	-5.32	111.32	117.70
25	DA	776	G	C8-N9-C1'	-5.32	120.08	127.00
25	DA	945	A	C5-C6-N1	-5.32	115.04	117.70
25	BA	1044	G	N1-C6-O6	-5.32	116.71	119.90
25	BA	2751	G	N3-C4-N9	5.32	129.19	126.00
25	DA	789	A	C8-N9-C4	-5.32	103.67	105.80
25	DA	2644	G	C4-C5-N7	-5.32	108.67	110.80
25	BA	1920	C	C5-C4-N4	-5.32	116.48	120.20
25	BA	2070	G	N3-C4-N9	5.32	129.19	126.00
25	DA	13	A	N1-C6-N6	-5.32	115.41	118.60
25	DA	2191	G	N3-C4-C5	5.32	131.26	128.60
1	AA	1421	G	C8-N9-C4	-5.32	104.27	106.40
25	BA	338	G	N7-C8-N9	-5.32	110.44	113.10
25	BA	928	G	C4-N9-C1'	5.32	133.41	126.50
25	BA	1219	G	C4-N9-C1'	-5.32	119.59	126.50
25	BA	1857	G	C4-C5-C6	5.32	121.99	118.80
25	BA	1863	G	C8-N9-C4	5.32	108.53	106.40
25	BA	2035	G	C4-C5-N7	5.32	112.93	110.80
25	BA	2433	A	N7-C8-N9	5.32	116.46	113.80
25	DA	1223	G	C8-N9-C1'	5.32	133.91	127.00
25	BA	2450	A	C6-C5-N7	-5.31	128.58	132.30
27	BD	213	ARG	NE-CZ-NH2	-5.31	117.64	120.30
25	DA	1163	G	N3-C2-N2	-5.31	116.18	119.90
1	AA	1457	G	C8-N9-C4	5.31	108.53	106.40
25	BA	27	G	N3-C4-C5	-5.31	125.94	128.60
25	BA	304	G	N1-C6-O6	5.31	123.09	119.90
25	BA	376	C	N1-C2-N3	5.31	122.92	119.20
25	BA	926	A	N1-C6-N6	5.31	121.79	118.60
25	BA	1361	G	C2-N3-C4	-5.31	109.24	111.90
25	BA	1755	A	C6-N1-C2	-5.31	115.41	118.60
1	CA	915	A	C5-N7-C8	5.31	106.56	103.90
25	DA	1894	C	N1-C2-O2	-5.31	115.71	118.90
25	DA	1964	G	C6-C5-N7	-5.31	127.21	130.40
25	DA	2365	G	C4-C5-N7	5.31	112.92	110.80
1	AA	886	G	N3-C4-N9	-5.31	122.81	126.00
25	BA	449	A	C4-C5-N7	5.31	113.36	110.70
25	BA	2231	C	N3-C4-C5	-5.31	119.78	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	60	C	C6-N1-C2	-5.31	118.18	120.30
26	BB	76	G	N1-C6-O6	5.31	123.09	119.90
1	AA	1278	U	C5-C6-N1	5.31	125.36	122.70
25	BA	36	G	C4-C5-N7	-5.31	108.68	110.80
25	BA	680	G	C8-N9-C4	5.31	108.52	106.40
25	BA	1026	U	C2-N1-C1'	5.31	124.07	117.70
25	BA	1192	G	N1-C6-O6	5.31	123.08	119.90
25	BA	2018	G	N1-C6-O6	5.31	123.08	119.90
25	DA	2829	C	C2-N1-C1'	-5.31	112.96	118.80
1	AA	1488	G	C8-N9-C4	-5.31	104.28	106.40
25	BA	514	A	N7-C8-N9	-5.31	111.15	113.80
25	BA	2373	G	N1-C2-N2	-5.31	111.42	116.20
26	BB	94	C	C5-C4-N4	-5.31	116.48	120.20
25	DA	1626	G	C8-N9-C4	-5.31	104.28	106.40
25	DA	1675	C	C6-N1-C2	-5.31	118.18	120.30
25	DA	2341	G	N1-C6-O6	5.31	123.08	119.90
25	DA	2459	A	C8-N9-C4	-5.31	103.68	105.80
25	BA	689	A	C4-C5-N7	-5.31	108.05	110.70
25	BA	1351	C	C5-C6-N1	-5.31	118.35	121.00
25	DA	774	A	N7-C8-N9	5.31	116.45	113.80
25	DA	1579	A	C8-N9-C1'	-5.31	118.15	127.70
1	AA	900	A	N7-C8-N9	5.30	116.45	113.80
1	AA	1158	C	C5-C6-N1	-5.30	118.35	121.00
25	BA	123	G	C5-C6-O6	-5.30	125.42	128.60
25	BA	1351	C	C2-N3-C4	-5.30	117.25	119.90
25	BA	2718	G	C4-N9-C1'	5.30	133.40	126.50
26	BB	65	C	N1-C2-O2	5.30	122.08	118.90
25	DA	946	G	C8-N9-C4	-5.30	104.28	106.40
25	DA	1822	G	C5-C6-N1	-5.30	108.85	111.50
25	BA	646	A	C5-N7-C8	-5.30	101.25	103.90
25	BA	2739	U	C5-C6-N1	-5.30	120.05	122.70
25	DA	142	A	N9-C4-C5	5.30	107.92	105.80
25	DA	514	A	C5-C6-N6	-5.30	119.46	123.70
25	DA	2827	C	N1-C2-O2	-5.30	115.72	118.90
25	DA	2877	G	C8-N9-C4	5.30	108.52	106.40
25	BA	1965	C	C4-C5-C6	-5.30	114.75	117.40
25	BA	2265	U	N1-C2-N3	5.30	118.08	114.90
1	CA	893	C	N1-C2-N3	-5.30	115.49	119.20
1	AA	7	G	N3-C4-N9	-5.30	122.82	126.00
1	AA	117	G	C2-N3-C4	-5.30	109.25	111.90
25	BA	959	A	N1-C6-N6	-5.30	115.42	118.60
25	BA	2054	A	C5-C6-N6	-5.30	119.46	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2514	U	N3-C2-O2	5.30	125.91	122.20
1	CA	887	G	N1-C6-O6	5.30	123.08	119.90
1	CA	1300	G	C8-N9-C1'	5.30	133.89	127.00
1	AA	343	U	C4-C5-C6	5.30	122.88	119.70
42	BW	18	ARG	NE-CZ-NH2	-5.30	117.65	120.30
25	DA	1631	C	C6-N1-C2	5.30	122.42	120.30
25	DA	2519	U	C5-C6-N1	-5.30	120.05	122.70
1	AA	1324	A	C4-C5-C6	5.30	119.65	117.00
25	BA	1692	U	C6-N1-C2	5.30	124.18	121.00
25	BA	2626	C	C6-N1-C2	5.30	122.42	120.30
25	DA	1218	C	C6-N1-C2	-5.30	118.18	120.30
25	DA	2022	U	C4-C5-C6	5.30	122.88	119.70
25	DA	2791	C	N3-C4-C5	-5.30	119.78	121.90
25	BA	715	G	N9-C4-C5	-5.29	103.28	105.40
25	BA	1653	G	N3-C4-C5	-5.29	125.95	128.60
25	BA	2331	G	C8-N9-C4	5.29	108.52	106.40
26	BB	30	C	C6-N1-C2	-5.29	118.18	120.30
25	DA	1187	G	C4-N9-C1'	5.29	133.38	126.50
1	AA	770	C	C5-C6-N1	-5.29	118.35	121.00
1	AA	780	A	C8-N9-C4	5.29	107.92	105.80
1	AA	1108	G	N1-C6-O6	-5.29	116.72	119.90
1	AA	1507	A	C5-C6-N6	5.29	127.93	123.70
1	AA	1524	C	C2-N3-C4	-5.29	117.25	119.90
25	BA	20	C	C5-C6-N1	-5.29	118.35	121.00
25	BA	829	A	C8-N9-C4	5.29	107.92	105.80
25	BA	859	G	N7-C8-N9	-5.29	110.45	113.10
25	BA	1607	C	N3-C4-C5	-5.29	119.78	121.90
25	BA	1819	A	C8-N9-C4	-5.29	103.68	105.80
25	BA	2033	A	N1-C6-N6	-5.29	115.42	118.60
25	BA	2412	A	N1-C6-N6	-5.29	115.42	118.60
25	BA	2557	G	C5-C6-O6	-5.29	125.42	128.60
25	DA	2502	G	N1-C6-O6	5.29	123.08	119.90
25	BA	224	G	N3-C4-C5	-5.29	125.95	128.60
25	BA	516	C	N3-C4-N4	5.29	121.70	118.00
25	BA	2327	A	N1-C2-N3	-5.29	126.65	129.30
25	DA	1984	G	N3-C2-N2	-5.29	116.20	119.90
25	DA	2597	G	C8-N9-C1'	-5.29	120.12	127.00
1	AA	165	C	N1-C2-O2	5.29	122.07	118.90
1	AA	883	C	C6-N1-C2	-5.29	118.18	120.30
1	AA	1074	G	C8-N9-C4	-5.29	104.28	106.40
1	AA	1526	G	N7-C8-N9	5.29	115.75	113.10
25	BA	1047	G	C8-N9-C4	-5.29	104.28	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1132	C	C6-N1-C2	-5.29	118.18	120.30
25	DA	1429	G	N9-C4-C5	5.29	107.52	105.40
1	AA	890	G	C4-C5-N7	-5.29	108.69	110.80
4	AD	188	LEU	CA-CB-CG	5.29	127.47	115.30
25	BA	449	A	C5-N7-C8	-5.29	101.26	103.90
25	BA	783	A	C8-N9-C4	-5.29	103.69	105.80
25	BA	1025	G	N7-C8-N9	-5.29	110.46	113.10
25	BA	2293	C	C5-C6-N1	-5.29	118.36	121.00
1	CA	479	C	C6-N1-C2	-5.29	118.19	120.30
1	CA	513	C	C6-N1-C1'	-5.29	114.45	120.80
25	DA	512	G	N1-C6-O6	-5.29	116.73	119.90
25	DA	1237	A	N1-C6-N6	-5.29	115.43	118.60
25	DA	1679	U	N3-C4-C5	-5.29	111.43	114.60
25	DA	1838	C	N1-C2-O2	5.29	122.07	118.90
25	DA	2729	G	C4-C5-N7	5.29	112.92	110.80
1	AA	355	C	C6-N1-C2	-5.29	118.19	120.30
25	BA	575	A	N3-C4-C5	-5.29	123.10	126.80
1	CA	1267	C	C5-C6-N1	5.29	123.64	121.00
25	BA	53	A	N1-C2-N3	5.29	131.94	129.30
25	BA	1287	A	C8-N9-C4	-5.29	103.69	105.80
25	BA	2027	G	N3-C4-C5	-5.29	125.96	128.60
25	DA	1702	G	C4-N9-C1'	-5.29	119.63	126.50
1	AA	336	C	N1-C2-O2	-5.28	115.73	118.90
1	AA	1150	U	N3-C4-C5	-5.28	111.43	114.60
25	BA	1145	C	N3-C4-C5	-5.28	119.79	121.90
25	BA	1579	A	N7-C8-N9	5.28	116.44	113.80
25	BA	2583	G	N1-C6-O6	5.28	123.07	119.90
1	CA	785	G	C8-N9-C4	5.28	108.51	106.40
25	DA	838	C	C5-C6-N1	-5.28	118.36	121.00
25	BA	29	U	C4-C5-C6	-5.28	116.53	119.70
25	BA	1428	C	C2-N1-C1'	-5.28	112.99	118.80
25	BA	2812	G	C5-C6-O6	5.28	131.77	128.60
26	BB	24	G	N9-C4-C5	-5.28	103.29	105.40
25	DA	13	A	C5-C6-N6	5.28	127.92	123.70
25	DA	2447	G	N1-C2-N2	5.28	120.95	116.20
25	DA	2607	G	C6-C5-N7	-5.28	127.23	130.40
25	DA	2838	G	N3-C2-N2	-5.28	116.20	119.90
1	AA	684	A	C5-C6-N6	5.28	127.92	123.70
1	AA	975	A	C5-N7-C8	-5.28	101.26	103.90
1	AA	1188	A	C5-C6-N6	5.28	127.92	123.70
25	DA	1788	C	C6-N1-C2	-5.28	118.19	120.30
25	BA	944	G	N1-C2-N3	5.28	127.07	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	961	C	N1-C2-N3	5.28	122.89	119.20
25	BA	975(A)	G	N1-C6-O6	5.28	123.07	119.90
1	CA	1402	C	C6-N1-C2	-5.28	118.19	120.30
1	AA	792	A	C4-N9-C1'	-5.28	116.80	126.30
25	BA	745	G	N3-C4-N9	5.28	129.16	126.00
25	BA	1160	G	N1-C2-N3	-5.28	120.73	123.90
25	BA	2712(A)	A	C8-N9-C4	5.28	107.91	105.80
25	BA	2717	G	N9-C4-C5	-5.28	103.29	105.40
26	BB	88	C	C2-N1-C1'	-5.28	113.00	118.80
1	CA	638	G	N3-C4-C5	5.28	131.24	128.60
25	DA	329	G	C4-N9-C1'	5.28	133.36	126.50
25	DA	1008	C	C6-N1-C2	5.28	122.41	120.30
25	DA	1232	G	N3-C4-N9	-5.28	122.83	126.00
25	DA	2575	C	N3-C2-O2	-5.28	118.21	121.90
25	BA	890	A	N9-C4-C5	-5.27	103.69	105.80
25	BA	2559	C	C5-C6-N1	-5.27	118.36	121.00
25	DA	1844	C	C5-C4-N4	-5.27	116.51	120.20
25	BA	218	A	N3-C4-N9	-5.27	123.18	127.40
25	BA	532	A	N7-C8-N9	5.27	116.44	113.80
25	BA	1479	G	N1-C6-O6	5.27	123.06	119.90
25	BA	1929	G	N1-C6-O6	-5.27	116.74	119.90
1	CA	1081	G	C8-N9-C4	5.27	108.51	106.40
1	CA	1518	A	N7-C8-N9	5.27	116.44	113.80
1	AA	697	U	C2-N3-C4	-5.27	123.84	127.00
1	AA	1375	A	N7-C8-N9	5.27	116.44	113.80
25	BA	2684	U	C5-C6-N1	-5.27	120.06	122.70
40	BU	12	ARG	NE-CZ-NH2	-5.27	117.67	120.30
25	DA	59	U	N1-C2-N3	5.27	118.06	114.90
1	AA	810	C	C2-N1-C1'	5.27	124.60	118.80
1	AA	811	C	N3-C2-O2	5.27	125.59	121.90
25	BA	729	G	C4-N9-C1'	5.27	133.35	126.50
25	BA	1685	C	N3-C4-N4	5.27	121.69	118.00
25	BA	1924	C	C2-N1-C1'	-5.27	113.00	118.80
25	BA	1980	G	C5-C6-N1	5.27	114.14	111.50
25	DA	534	U	N3-C4-C5	-5.27	111.44	114.60
25	DA	2515	C	N1-C2-O2	-5.27	115.74	118.90
34	DO	26	LYS	N-CA-C	-5.27	96.77	111.00
1	AA	181	G	C8-N9-C4	-5.27	104.29	106.40
1	AA	809	G	N3-C2-N2	-5.27	116.21	119.90
1	AA	925	G	C6-N1-C2	-5.27	121.94	125.10
25	BA	61	G	C8-N9-C4	5.27	108.51	106.40
25	BA	1149	G	N3-C4-C5	5.27	131.23	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1181	C	C6-N1-C2	5.27	122.41	120.30
25	BA	1259	G	C4-C5-C6	5.27	121.96	118.80
25	BA	1992	G	N3-C4-N9	5.27	129.16	126.00
25	BA	2581	G	N1-C2-N2	-5.27	111.46	116.20
25	BA	2613	U	N3-C4-C5	5.27	117.76	114.60
1	CA	442	C	C5-C6-N1	5.27	123.63	121.00
25	DA	114	U	C2-N1-C1'	5.27	124.02	117.70
25	DA	135	G	N3-C4-C5	5.27	131.23	128.60
25	DA	531	C	C6-N1-C1'	5.27	127.12	120.80
25	BA	686	G	C4-C5-C6	5.27	121.96	118.80
27	BD	274	ARG	C-N-CA	5.27	134.86	121.70
47	B1	25	LYS	CD-CE-NZ	5.27	123.81	111.70
1	CA	565	U	C6-N1-C2	-5.27	117.84	121.00
1	CA	1356	G	C5-C6-N1	-5.27	108.87	111.50
1	CA	1363(A)	A	C4-C5-N7	-5.27	108.07	110.70
25	DA	294	A	N1-C6-N6	-5.27	115.44	118.60
25	BA	715	G	C4-N9-C1'	5.26	133.34	126.50
25	BA	763	G	N3-C4-C5	-5.26	125.97	128.60
25	BA	1405	U	N3-C2-O2	-5.26	118.51	122.20
25	BA	1515	G	N3-C4-N9	5.26	129.16	126.00
25	BA	1978	A	C8-N9-C4	5.26	107.91	105.80
1	CA	1385	G	N3-C2-N2	-5.26	116.22	119.90
1	CA	1414	U	C2-N1-C1'	5.26	124.02	117.70
25	DA	968	G	C8-N9-C4	-5.26	104.29	106.40
25	DA	1423	G	C8-N9-C4	5.26	108.51	106.40
25	DA	2060	A	C5-C6-N1	5.26	120.33	117.70
25	DA	2504	U	N1-C2-N3	-5.26	111.74	114.90
25	BA	530	G	C6-C5-N7	5.26	133.56	130.40
25	BA	2102	U	C2-N3-C4	5.26	130.16	127.00
25	BA	2363	C	C5-C4-N4	-5.26	116.52	120.20
26	BB	85	G	C4-C5-C6	5.26	121.96	118.80
25	DA	752	A	C8-N9-C4	-5.26	103.69	105.80
1	AA	511	C	C6-N1-C1'	5.26	127.11	120.80
1	AA	744	C	N3-C2-O2	-5.26	118.22	121.90
1	AA	1044	A	N9-C4-C5	5.26	107.90	105.80
25	BA	665	C	N3-C2-O2	5.26	125.58	121.90
25	BA	2253	G	C6-C5-N7	-5.26	127.24	130.40
1	CA	481	G	C8-N9-C1'	-5.26	120.16	127.00
25	DA	1193	G	N1-C6-O6	5.26	123.06	119.90
25	DA	2049	G	C2-N3-C4	-5.26	109.27	111.90
1	AA	1137	C	C5-C6-N1	5.26	123.63	121.00
25	BA	136	G	C2-N3-C4	-5.26	109.27	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	652(Q)	G	N1-C6-O6	5.26	123.06	119.90
25	BA	2083	G	C5-C6-N1	-5.26	108.87	111.50
34	BO	25	LEU	CA-CB-CG	5.26	127.40	115.30
1	CA	1500	A	N1-C6-N6	5.26	121.75	118.60
25	DA	530	G	N9-C4-C5	5.26	107.50	105.40
25	DA	2049	G	N3-C4-C5	5.26	131.23	128.60
25	DA	2382	G	N3-C4-C5	-5.26	125.97	128.60
25	DA	2829	C	N3-C2-O2	5.26	125.58	121.90
25	BA	298	G	C4-C5-C6	5.26	121.95	118.80
25	BA	1025	G	N1-C6-O6	-5.26	116.75	119.90
25	BA	1630	G	C2-N3-C4	-5.26	109.27	111.90
1	AA	42	G	N1-C6-O6	5.26	123.05	119.90
1	AA	652	U	N1-C2-O2	-5.26	119.12	122.80
1	AA	1076	C	N1-C2-O2	-5.26	115.75	118.90
25	BA	1299	G	C5-N7-C8	-5.26	101.67	104.30
25	BA	1336	A	C8-N9-C4	-5.26	103.70	105.80
25	BA	1595	G	N3-C4-C5	-5.26	125.97	128.60
25	BA	2049	G	C8-N9-C4	5.26	108.50	106.40
25	BA	2508	G	C2-N3-C4	5.26	114.53	111.90
1	CA	64	G	N1-C6-O6	5.26	123.05	119.90
25	DA	1471	A	C8-N9-C4	-5.26	103.70	105.80
25	DA	1829	A	C2-N3-C4	-5.26	107.97	110.60
26	DB	19	G	N3-C4-N9	-5.26	122.85	126.00
26	DB	103	G	C4-C5-N7	5.26	112.90	110.80
25	BA	130	C	C6-N1-C1'	-5.25	114.49	120.80
25	BA	625	G	C8-N9-C4	-5.25	104.30	106.40
25	BA	2874	C	C6-N1-C2	5.25	122.40	120.30
23	CV	22	G	N7-C8-N9	5.25	115.73	113.10
1	AA	636	U	C5-C6-N1	5.25	125.33	122.70
25	BA	2261	C	N3-C4-C5	-5.25	119.80	121.90
25	BA	2677	G	N1-C6-O6	-5.25	116.75	119.90
25	BA	2730	C	C2-N3-C4	-5.25	117.27	119.90
25	BA	2783	G	N3-C4-N9	5.25	129.15	126.00
25	DA	1619	G	C2-N3-C4	5.25	114.53	111.90
1	AA	156	G	N3-C4-C5	-5.25	125.97	128.60
1	AA	731	G	N3-C4-N9	-5.25	122.85	126.00
25	BA	1033	U	C2-N3-C4	-5.25	123.85	127.00
25	BA	1221(A)	C	C5-C4-N4	-5.25	116.52	120.20
25	BA	2001	A	N7-C8-N9	5.25	116.43	113.80
25	BA	2680	C	N3-C4-N4	5.25	121.68	118.00
25	BA	2689	U	N3-C2-O2	-5.25	118.52	122.20
25	BA	2870	C	N3-C4-C5	-5.25	119.80	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	318	G	N3-C2-N2	-5.25	116.22	119.90
1	CA	416	G	C6-C5-N7	-5.25	127.25	130.40
13	CM	70	LEU	CA-CB-CG	5.25	127.38	115.30
25	DA	1142	U	C6-N1-C1'	-5.25	113.85	121.20
25	DA	1600	C	C5-C6-N1	-5.25	118.37	121.00
1	AA	1008	C	C2-N1-C1'	-5.25	113.03	118.80
1	CA	1149	C	N3-C2-O2	-5.25	118.22	121.90
1	AA	541	G	N1-C2-N2	5.25	120.92	116.20
25	BA	556	G	C5-N7-C8	-5.25	101.67	104.30
25	BA	864	G	N3-C4-N9	5.25	129.15	126.00
25	BA	1815	A	C5-C6-N1	5.25	120.32	117.70
25	BA	2378	A	N1-C2-N3	5.25	131.92	129.30
25	BA	2729	G	N3-C4-C5	5.25	131.22	128.60
25	DA	2619	C	C6-N1-C2	5.25	122.40	120.30
25	BA	146	G	C5-C6-O6	-5.25	125.45	128.60
25	BA	880	G	C8-N9-C4	-5.25	104.30	106.40
25	BA	2102	U	C5-C6-N1	5.25	125.32	122.70
1	CA	506	G	C8-N9-C4	-5.25	104.30	106.40
25	DA	222	A	C8-N9-C4	5.25	107.90	105.80
25	DA	1970	A	N7-C8-N9	5.25	116.42	113.80
25	DA	2033	A	N9-C4-C5	5.25	107.90	105.80
25	DA	2566	A	N3-C4-N9	-5.25	123.20	127.40
1	AA	586	C	N3-C4-C5	5.25	124.00	121.90
25	BA	211	A	N1-C6-N6	5.25	121.75	118.60
25	DA	2426	A	C4-C5-N7	5.25	113.32	110.70
25	DA	2821	A	N1-C2-N3	5.25	131.92	129.30
25	BA	1676	A	C5-C6-N6	5.24	127.89	123.70
25	BA	2483	C	C5-C4-N4	-5.24	116.53	120.20
25	BA	2811	G	C4-C5-N7	5.24	112.90	110.80
25	DA	616	G	N3-C4-N9	5.24	129.15	126.00
25	DA	977	G	C4-C5-N7	5.24	112.90	110.80
25	DA	1787	A	N9-C4-C5	-5.24	103.70	105.80
25	DA	2583	G	C5-C6-O6	5.24	131.75	128.60
25	BA	1363	C	N3-C4-N4	-5.24	114.33	118.00
25	BA	2718	G	C6-C5-N7	-5.24	127.25	130.40
25	BA	2873	A	C6-C5-N7	-5.24	128.63	132.30
1	CA	314	C	C2-N1-C1'	5.24	124.57	118.80
1	AA	300	A	N1-C6-N6	-5.24	115.46	118.60
25	BA	183	C	C6-N1-C2	5.24	122.40	120.30
25	BA	491	G	N1-C6-O6	-5.24	116.75	119.90
25	BA	2275	C	C5-C4-N4	5.24	123.87	120.20
25	BA	2413	G	C4-N9-C1'	-5.24	119.69	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2824	C	C2-N1-C1'	-5.24	113.04	118.80
26	BB	35	U	C5-C6-N1	-5.24	120.08	122.70
26	BB	77	U	C2-N3-C4	-5.24	123.86	127.00
36	BQ	14	ARG	NE-CZ-NH2	-5.24	117.68	120.30
1	CA	319	G	C2-N3-C4	-5.24	109.28	111.90
25	DA	137	C	C6-N1-C2	-5.24	118.20	120.30
25	DA	188	G	N3-C4-C5	5.24	131.22	128.60
25	DA	893	C	C5-C6-N1	5.24	123.62	121.00
25	DA	2876	G	N1-C6-O6	5.24	123.05	119.90
1	AA	1272	G	C6-C5-N7	-5.24	127.26	130.40
1	AA	1482	G	C6-C5-N7	-5.24	127.26	130.40
25	BA	146	G	C4-C5-N7	5.24	112.89	110.80
25	BA	870	A	N1-C6-N6	-5.24	115.46	118.60
25	BA	1319	G	C6-N1-C2	-5.24	121.96	125.10
25	BA	1753	G	C8-N9-C4	-5.24	104.31	106.40
25	BA	2018	G	N3-C4-C5	-5.24	125.98	128.60
25	BA	2196	C	N1-C2-O2	-5.24	115.76	118.90
25	BA	2820	A	C5-N7-C8	-5.24	101.28	103.90
1	CA	1119	C	C5-C6-N1	5.24	123.62	121.00
25	DA	464	U	N3-C4-O4	5.24	123.07	119.40
25	DA	473	G	C2-N3-C4	-5.24	109.28	111.90
25	DA	530	G	C8-N9-C1'	5.24	133.81	127.00
25	DA	1945	G	N3-C4-N9	5.24	129.14	126.00
25	DA	2589	A	N7-C8-N9	-5.24	111.18	113.80
25	BA	995	C	N1-C2-O2	-5.24	115.76	118.90
25	BA	1022	G	N9-C4-C5	5.24	107.50	105.40
1	CA	1399	C	N3-C4-C5	-5.24	119.81	121.90
25	DA	2446	G	C4-C5-N7	-5.24	108.70	110.80
1	AA	509	A	N7-C8-N9	5.24	116.42	113.80
1	AA	575	G	C6-C5-N7	5.24	133.54	130.40
25	BA	796	C	C6-N1-C2	5.24	122.39	120.30
25	BA	963	U	C2-N1-C1'	5.24	123.98	117.70
25	BA	1107	G	C8-N9-C4	-5.24	104.31	106.40
25	BA	2703	C	N1-C2-O2	5.24	122.04	118.90
25	DA	1839	G	N9-C4-C5	-5.24	103.31	105.40
25	DA	2775	A	C8-N9-C4	5.24	107.89	105.80
1	AA	1229	A	C6-N1-C2	5.23	121.74	118.60
25	BA	1111	A	N1-C6-N6	5.23	121.74	118.60
25	BA	1333	C	N3-C4-N4	5.23	121.66	118.00
25	DA	730	C	N3-C4-C5	5.23	123.99	121.90
25	DA	930	U	N1-C2-N3	-5.23	111.76	114.90
25	DA	1637	A	N1-C2-N3	5.23	131.92	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1789	A	N1-C6-N6	-5.23	115.46	118.60
25	DA	2555	U	C2-N1-C1'	-5.23	111.42	117.70
1	AA	36	C	N1-C2-N3	5.23	122.86	119.20
1	AA	117	G	C4-C5-N7	5.23	112.89	110.80
1	AA	1253	G	N3-C4-C5	-5.23	125.98	128.60
25	BA	832	G	N9-C4-C5	5.23	107.49	105.40
25	BA	1796	U	C6-N1-C2	5.23	124.14	121.00
25	DA	2321	G	C4-N9-C1'	5.23	133.30	126.50
25	BA	197	A	C6-C5-N7	-5.23	128.64	132.30
25	BA	1401	G	N7-C8-N9	5.23	115.72	113.10
25	BA	1514	U	N1-C2-O2	5.23	126.46	122.80
25	BA	2024	G	N7-C8-N9	-5.23	110.48	113.10
25	BA	2616	C	C2-N3-C4	-5.23	117.28	119.90
25	BA	2632	A	C5-C6-N1	5.23	120.31	117.70
25	BA	2822	G	N1-C6-O6	5.23	123.04	119.90
1	CA	816	A	N9-C4-C5	5.23	107.89	105.80
1	AA	768	A	C4-C5-C6	5.23	119.61	117.00
27	BD	113	VAL	CB-CA-C	-5.23	101.46	111.40
25	DA	1551	C	N3-C4-C5	-5.23	119.81	121.90
1	AA	575	G	C4-N9-C1'	-5.23	119.70	126.50
1	AA	800	G	C8-N9-C4	-5.23	104.31	106.40
25	BA	67	U	N1-C2-N3	5.23	118.04	114.90
25	BA	132	G	N1-C2-N3	5.23	127.04	123.90
25	BA	343	C	C2-N3-C4	-5.23	117.29	119.90
25	BA	652(F)	G	N3-C4-C5	5.23	131.21	128.60
25	BA	1286	A	C2-N3-C4	-5.23	107.99	110.60
38	BS	58	LEU	CA-CB-CG	5.23	127.32	115.30
25	DA	71	A	C4-C5-C6	5.23	119.61	117.00
25	DA	132	G	C5-C6-O6	5.23	131.74	128.60
25	DA	1204	A	O4'-C1'-N9	5.23	112.38	108.20
25	DA	1945	G	C8-N9-C1'	-5.23	120.21	127.00
16	AP	78	GLY	N-CA-C	-5.23	100.04	113.10
25	BA	2409	G	C6-N1-C2	-5.23	121.97	125.10
1	AA	1108	G	C5-C6-O6	5.22	131.74	128.60
25	BA	997	G	N3-C2-N2	5.22	123.56	119.90
25	BA	2828	C	C2-N3-C4	-5.22	117.29	119.90
26	BB	99	G	N1-C6-O6	5.22	123.03	119.90
25	DA	2485	G	N3-C4-N9	5.22	129.13	126.00
25	BA	320	A	C5-N7-C8	-5.22	101.29	103.90
25	BA	938	G	N3-C4-N9	-5.22	122.87	126.00
25	BA	1831	G	C5-N7-C8	-5.22	101.69	104.30
25	BA	1840	G	N1-C6-O6	-5.22	116.77	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2574	G	N9-C4-C5	-5.22	103.31	105.40
25	DA	696	G	C5-N7-C8	5.22	106.91	104.30
25	DA	1631	C	C2-N3-C4	-5.22	117.29	119.90
25	DA	2571	C	C6-N1-C2	-5.22	118.21	120.30
25	BA	2575	C	N1-C2-N3	5.22	122.86	119.20
25	DA	2607	G	C8-N9-C4	5.22	108.49	106.40
1	AA	345	C	N1-C2-O2	5.22	122.03	118.90
25	BA	441	U	C2-N3-C4	-5.22	123.87	127.00
25	BA	1004	C	N3-C4-C5	-5.22	119.81	121.90
25	BA	1168	G	N1-C2-N2	-5.22	111.50	116.20
25	BA	1640	C	C6-N1-C2	-5.22	118.21	120.30
25	BA	2569	G	N3-C2-N2	5.22	123.55	119.90
26	BB	47	C	N1-C2-O2	-5.22	115.77	118.90
1	CA	1406	U	N3-C2-O2	-5.22	118.55	122.20
25	DA	1371	G	C5-C6-N1	5.22	114.11	111.50
25	BA	1721	G	N9-C4-C5	5.22	107.49	105.40
25	BA	2558	C	C2-N3-C4	-5.22	117.29	119.90
25	BA	2629	A	N1-C2-N3	5.22	131.91	129.30
33	BN	46	VAL	N-CA-C	5.22	125.09	111.00
1	CA	1523	G	C5-C6-O6	5.22	131.73	128.60
1	AA	369	C	C6-N1-C2	-5.22	118.21	120.30
1	AA	765	G	C8-N9-C4	5.22	108.49	106.40
23	AV	2	G	N3-C2-N2	-5.22	116.25	119.90
25	BA	756	C	C2-N1-C1'	-5.22	113.06	118.80
25	BA	940	G	N3-C4-N9	5.22	129.13	126.00
25	BA	1928	A	C8-N9-C4	-5.22	103.71	105.80
25	BA	2073	C	N1-C2-O2	-5.22	115.77	118.90
25	BA	2873	A	C4-C5-C6	5.22	119.61	117.00
1	CA	1197	G	C5-C6-N1	5.22	114.11	111.50
25	BA	649	G	C5-C6-O6	-5.21	125.47	128.60
25	BA	715	G	N1-C2-N2	-5.21	111.51	116.20
25	BA	1627	G	C4-C5-N7	5.21	112.89	110.80
25	DA	1260	G	N7-C8-N9	-5.21	110.49	113.10
25	DA	1813	G	N3-C2-N2	-5.21	116.25	119.90
25	DA	1984	G	C8-N9-C4	-5.21	104.31	106.40
25	BA	1966	A	C5-C6-N6	-5.21	119.53	123.70
25	DA	1441	G	C8-N9-C4	5.21	108.48	106.40
25	DA	2035	G	C5-N7-C8	5.21	106.91	104.30
1	AA	728	A	C5-N7-C8	-5.21	101.29	103.90
1	AA	1474	G	N7-C8-N9	-5.21	110.49	113.10
25	BA	1399	C	C4-C5-C6	5.21	120.01	117.40
25	BA	1399	C	C5-C6-N1	-5.21	118.39	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1592	C	N1-C2-O2	5.21	122.03	118.90
25	BA	2646	C	N3-C4-N4	5.21	121.65	118.00
25	BA	2826	A	C8-N9-C4	5.21	107.89	105.80
25	BA	2869	G	C5-C6-O6	5.21	131.73	128.60
25	DA	219	G	N3-C4-C5	-5.21	125.99	128.60
25	DA	329	G	N1-C2-N2	-5.21	111.51	116.20
25	DA	1683	C	C6-N1-C2	5.21	122.38	120.30
29	DF	12	LEU	CA-CB-CG	5.21	127.28	115.30
1	AA	119	A	C2-N3-C4	5.21	113.20	110.60
25	BA	265	A	C4-C5-C6	5.21	119.61	117.00
25	BA	2352	A	C5-C6-N6	-5.21	119.53	123.70
25	BA	2764	A	C5-C6-N6	5.21	127.87	123.70
40	BU	83	LEU	CA-CB-CG	5.21	127.28	115.30
1	CA	1149	C	C2-N1-C1'	5.21	124.53	118.80
25	DA	2726	U	C6-N1-C2	5.21	124.13	121.00
1	AA	1227	A	C5-C6-N1	-5.21	115.09	117.70
25	BA	146	G	C2-N3-C4	-5.21	109.30	111.90
25	BA	2327	A	C6-C5-N7	5.21	135.95	132.30
53	B7	34	ARG	NE-CZ-NH1	-5.21	117.69	120.30
1	CA	504	C	C2-N1-C1'	5.21	124.53	118.80
25	DA	837	C	N3-C4-N4	5.21	121.65	118.00
1	AA	862	C	N3-C4-C5	-5.21	119.82	121.90
25	BA	799	G	C6-N1-C2	-5.21	121.98	125.10
25	BA	926	A	C4-C5-N7	5.21	113.30	110.70
25	BA	1970	A	C8-N9-C1'	-5.21	118.33	127.70
25	BA	2031	A	C4-C5-N7	-5.21	108.10	110.70
25	BA	2074	U	C5-C6-N1	5.21	125.30	122.70
1	CA	1411	C	N3-C4-C5	5.21	123.98	121.90
25	BA	15	G	C6-N1-C2	5.21	128.22	125.10
1	CA	1323	G	N7-C8-N9	5.21	115.70	113.10
25	DA	298	G	C5-N7-C8	-5.21	101.70	104.30
25	DA	2608	G	C5-C6-O6	5.21	131.72	128.60
25	BA	732	C	C6-N1-C1'	5.20	127.05	120.80
25	BA	859	G	C4-N9-C1'	-5.20	119.73	126.50
25	BA	1262	A	C6-C5-N7	-5.20	128.66	132.30
25	BA	1368	G	N9-C4-C5	5.20	107.48	105.40
25	BA	1616	A	N7-C8-N9	5.20	116.40	113.80
25	BA	1835	G	N7-C8-N9	5.20	115.70	113.10
25	BA	2315	G	N9-C4-C5	-5.20	103.32	105.40
25	BA	2819	G	N3-C2-N2	-5.20	116.26	119.90
1	CA	616	G	C6-C5-N7	-5.20	127.28	130.40
1	CA	1281	U	N1-C2-O2	5.20	126.44	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1455	G	C8-N9-C4	-5.20	104.32	106.40
25	DA	2089	U	N3-C2-O2	5.20	125.84	122.20
1	AA	736	C	C6-N1-C2	-5.20	118.22	120.30
25	BA	1663	C	C6-N1-C2	5.20	122.38	120.30
25	DA	820	A	C5-C6-N6	5.20	127.86	123.70
25	DA	1675	C	N3-C2-O2	-5.20	118.26	121.90
25	BA	189	G	N1-C2-N2	-5.20	111.52	116.20
25	BA	1360	A	N3-C4-C5	5.20	130.44	126.80
25	BA	1424	G	C2-N3-C4	-5.20	109.30	111.90
25	BA	1970	A	C5-C6-N1	5.20	120.30	117.70
25	BA	2564	A	N9-C4-C5	5.20	107.88	105.80
25	DA	1229	G	N1-C6-O6	5.20	123.02	119.90
25	DA	1394	U	N3-C2-O2	-5.20	118.56	122.20
25	DA	2695	C	C5-C6-N1	-5.20	118.40	121.00
1	AA	175	C	N3-C2-O2	-5.20	118.26	121.90
25	BA	2051	A	C8-N9-C4	-5.20	103.72	105.80
25	DA	734	A	C5-N7-C8	-5.20	101.30	103.90
25	DA	2443	C	N3-C2-O2	-5.20	118.26	121.90
25	BA	1200	C	C5-C6-N1	-5.20	118.40	121.00
25	BA	1349	A	C2-N3-C4	-5.20	108.00	110.60
25	BA	1415	U	N3-C2-O2	-5.20	118.56	122.20
25	BA	2352	A	C4-C5-N7	5.20	113.30	110.70
25	BA	2417	C	C4-C5-C6	5.20	120.00	117.40
26	BB	96	U	N1-C2-O2	5.20	126.44	122.80
1	CA	1112	C	N1-C2-N3	5.20	122.84	119.20
25	BA	198	C	C2-N1-C1'	5.20	124.52	118.80
25	BA	498	G	C5-C6-O6	5.20	131.72	128.60
25	BA	972	G	N9-C4-C5	5.20	107.48	105.40
25	BA	1325	G	N3-C4-C5	-5.20	126.00	128.60
25	BA	2497	A	C5-C6-N1	5.20	120.30	117.70
25	BA	2730	C	N3-C4-N4	-5.20	114.36	118.00
26	BB	81	G	C5-C6-O6	-5.20	125.48	128.60
1	CA	1363(A)	A	C6-N1-C2	-5.20	115.48	118.60
1	AA	952	U	C2-N1-C1'	-5.19	111.47	117.70
25	BA	700	G	C8-N9-C4	-5.19	104.32	106.40
25	BA	713	G	C6-C5-N7	-5.19	127.28	130.40
25	BA	932	G	C5-C6-O6	5.19	131.72	128.60
25	BA	1985	G	C2-N3-C4	-5.19	109.30	111.90
25	BA	2035	G	C8-N9-C1'	5.19	133.75	127.00
26	BB	6	C	C5-C6-N1	-5.19	118.40	121.00
28	BE	119	ARG	NE-CZ-NH2	-5.19	117.70	120.30
25	BA	1806	C	C2-N1-C1'	-5.19	113.09	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2072	G	N3-C4-N9	5.19	129.12	126.00
25	BA	2197	U	N1-C2-O2	-5.19	119.17	122.80
25	DA	672	C	C5-C6-N1	-5.19	118.40	121.00
1	AA	912	C	N1-C2-O2	-5.19	115.79	118.90
23	AV	51	C	C5-C6-N1	5.19	123.59	121.00
25	BA	34	C	P-O3'-C3'	5.19	125.93	119.70
25	BA	949	C	N3-C2-O2	5.19	125.53	121.90
25	BA	2279	G	C5-C6-O6	5.19	131.72	128.60
25	BA	2291	U	C5-C4-O4	5.19	129.01	125.90
1	CA	115	G	C6-C5-N7	-5.19	127.28	130.40
25	DA	574	C	C6-N1-C1'	5.19	127.03	120.80
25	DA	2014	A	C4-C5-C6	5.19	119.59	117.00
25	DA	2894	G	C8-N9-C1'	-5.19	120.25	127.00
25	BA	1819	A	N1-C2-N3	5.19	131.89	129.30
1	AA	550	G	N3-C2-N2	-5.19	116.27	119.90
1	AA	554	C	C6-N1-C2	-5.19	118.22	120.30
25	BA	570	G	N3-C4-C5	-5.19	126.01	128.60
25	BA	636	G	C5-C6-O6	-5.19	125.49	128.60
25	BA	1760	A	C4-C5-N7	5.19	113.29	110.70
25	BA	1763	G	C4-N9-C1'	-5.19	119.76	126.50
25	BA	2203	U	C2-N1-C1'	-5.19	111.47	117.70
25	BA	2491	U	C6-N1-C2	5.19	124.11	121.00
1	CA	913	A	P-O3'-C3'	5.19	125.92	119.70
25	DA	1299	G	N1-C2-N3	5.19	127.01	123.90
25	BA	2721	A	C6-C5-N7	-5.19	128.67	132.30
1	CA	1133	G	N9-C4-C5	5.19	107.47	105.40
25	DA	767	U	N3-C2-O2	-5.19	118.57	122.20
25	BA	332	A	N1-C6-N6	-5.18	115.49	118.60
25	BA	400	G	C5-C6-N1	-5.18	108.91	111.50
25	BA	1352	U	N3-C4-O4	5.18	123.03	119.40
25	BA	2410	G	N3-C4-C5	-5.18	126.01	128.60
25	BA	2564	A	C5-C6-N1	5.18	120.29	117.70
25	BA	2572	A	C4-C5-C6	5.18	119.59	117.00
25	DA	559	G	N3-C4-C5	5.18	131.19	128.60
1	AA	1418	A	N1-C6-N6	5.18	121.71	118.60
25	BA	2364	C	C5-C6-N1	-5.18	118.41	121.00
1	CA	530	G	C8-N9-C1'	-5.18	120.26	127.00
25	DA	377	C	N1-C2-O2	-5.18	115.79	118.90
25	DA	552	G	N3-C4-N9	-5.18	122.89	126.00
25	DA	1496	A	C8-N9-C4	-5.18	103.73	105.80
25	DA	2823	A	C5-N7-C8	-5.18	101.31	103.90
1	AA	319	G	C8-N9-C4	5.18	108.47	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2565	A	N7-C8-N9	-5.18	111.21	113.80
1	CA	1333	A	N1-C6-N6	-5.18	115.49	118.60
25	DA	1691	C	N1-C2-O2	-5.18	115.79	118.90
25	DA	2288	A	C8-N9-C4	-5.18	103.73	105.80
1	AA	794	A	C5-C6-N1	-5.18	115.11	117.70
1	AA	811	C	N1-C2-O2	-5.18	115.79	118.90
25	BA	583	G	N1-C6-O6	-5.18	116.79	119.90
25	BA	973	A	N1-C6-N6	5.18	121.71	118.60
25	BA	1204	A	C3'-C2'-C1'	-5.18	97.36	101.50
25	BA	1631(A)	A	C8-N9-C4	-5.18	103.73	105.80
25	BA	2219	G	N3-C2-N2	5.18	123.53	119.90
25	DA	849	A	N9-C4-C5	5.18	107.87	105.80
25	DA	1992	G	C2-N3-C4	5.18	114.49	111.90
25	DA	2185	C	N1-C2-O2	5.18	122.01	118.90
1	AA	221	C	C6-N1-C2	-5.18	118.23	120.30
25	DA	673	C	C2-N3-C4	-5.18	117.31	119.90
1	AA	243	A	C5-N7-C8	-5.18	101.31	103.90
1	AA	719	C	N3-C4-C5	-5.18	119.83	121.90
1	AA	1363(A)	A	C6-C5-N7	5.18	135.92	132.30
1	AA	1417	G	C8-N9-C1'	-5.18	120.27	127.00
22	AY	9	ALA	CB-CA-C	5.18	117.86	110.10
25	BA	563	G	N9-C4-C5	-5.18	103.33	105.40
25	BA	1622	G	C6-N1-C2	-5.18	121.99	125.10
25	BA	2715	C	C5-C6-N1	-5.18	118.41	121.00
25	DA	546	C	C2-N1-C1'	5.18	124.50	118.80
25	DA	1645	G	N3-C4-C5	-5.18	126.01	128.60
25	DA	2321	G	N3-C4-C5	-5.18	126.01	128.60
1	AA	944	G	C4-C5-C6	5.17	121.90	118.80
1	AA	972	C	N3-C4-N4	5.17	121.62	118.00
1	AA	1271	G	N1-C6-O6	5.17	123.00	119.90
25	BA	221	A	N1-C6-N6	-5.17	115.50	118.60
25	BA	333	G	N7-C8-N9	5.17	115.69	113.10
25	BA	1653	G	C8-N9-C1'	-5.17	120.27	127.00
55	B9	19	ARG	NE-CZ-NH2	5.17	122.89	120.30
1	CA	685	G	C8-N9-C1'	5.17	133.73	127.00
1	CA	932	C	N3-C2-O2	-5.17	118.28	121.90
25	DA	1135	C	C6-N1-C1'	-5.17	114.59	120.80
25	DA	1897	G	C8-N9-C4	5.17	108.47	106.40
25	DA	2054	A	C8-N9-C4	-5.17	103.73	105.80
25	DA	2444	G	C4-C5-N7	-5.17	108.73	110.80
25	DA	2618	G	C4-C5-N7	-5.17	108.73	110.80
25	BA	1116	C	N1-C2-O2	5.17	122.00	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	530	G	N7-C8-N9	5.17	115.69	113.10
25	BA	1293	C	C5-C4-N4	-5.17	116.58	120.20
25	BA	1438	U	C4-C5-C6	5.17	122.80	119.70
25	BA	1788	C	N1-C2-O2	5.17	122.00	118.90
25	DA	1347	G	N3-C4-C5	5.17	131.19	128.60
25	DA	2429	G	N1-C6-O6	5.17	123.00	119.90
25	BA	2229	C	C6-N1-C2	-5.17	118.23	120.30
25	BA	2293	C	N3-C4-C5	5.17	123.97	121.90
25	DA	196	A	C8-N9-C4	5.17	107.87	105.80
25	DA	589	C	N3-C2-O2	5.17	125.52	121.90
25	DA	729	G	C5-C6-O6	-5.17	125.50	128.60
25	DA	1655	A	C8-N9-C4	5.17	107.87	105.80
25	DA	2401	U	C2-N1-C1'	5.17	123.90	117.70
1	AA	911	U	C5-C6-N1	-5.17	120.12	122.70
25	BA	1669	A	C4-N9-C1'	5.17	135.60	126.30
25	BA	1929	G	N7-C8-N9	-5.17	110.52	113.10
1	CA	115	G	P-O3'-C3'	5.17	125.90	119.70
25	DA	512	G	C5-C6-O6	5.17	131.70	128.60
25	DA	1129	A	C4-C5-C6	-5.17	114.42	117.00
26	DB	53	A	C8-N9-C4	-5.17	103.73	105.80
1	AA	786	G	C4-C5-N7	-5.17	108.73	110.80
25	BA	148	C	N3-C4-C5	5.17	123.97	121.90
25	BA	150	C	C5-C6-N1	-5.17	118.42	121.00
25	BA	151	C	N3-C4-N4	-5.17	114.38	118.00
25	BA	404	C	N3-C4-N4	-5.17	114.38	118.00
25	BA	1519	G	N9-C4-C5	5.17	107.47	105.40
25	BA	1664	A	N7-C8-N9	5.17	116.38	113.80
25	BA	1806	C	N3-C4-N4	-5.17	114.38	118.00
25	BA	2373	G	C8-N9-C4	5.17	108.47	106.40
1	CA	299	G	C5-C6-N1	-5.17	108.92	111.50
1	CA	576	G	C5-C6-O6	-5.17	125.50	128.60
1	CA	1272	G	C6-C5-N7	-5.17	127.30	130.40
25	DA	2775	A	C4-C5-C6	-5.17	114.42	117.00
1	AA	693	G	N1-C6-O6	5.17	123.00	119.90
25	BA	748	G	C5-C6-N1	5.17	114.08	111.50
25	BA	1925	C	C2-N1-C1'	-5.17	113.12	118.80
25	BA	1957	C	C5-C6-N1	-5.17	118.42	121.00
25	BA	2680	C	C5-C6-N1	-5.17	118.42	121.00
1	AA	689	C	C6-N1-C2	-5.16	118.23	120.30
25	BA	2327	A	N7-C8-N9	-5.16	111.22	113.80
1	CA	853	G	N9-C4-C5	5.16	107.47	105.40
25	DA	1262	A	C5-C6-N6	-5.16	119.57	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	744	G	N3-C2-N2	-5.16	116.29	119.90
25	BA	2268	A	C6-N1-C2	-5.16	115.50	118.60
25	DA	209	C	C6-N1-C2	5.16	122.36	120.30
25	DA	747	U	C6-N1-C1'	-5.16	113.97	121.20
25	DA	2028	U	C4-C5-C6	5.16	122.80	119.70
1	AA	1276	G	C8-N9-C4	-5.16	104.34	106.40
1	AA	1499	A	C8-N9-C4	5.16	107.86	105.80
25	BA	228	A	N3-C4-N9	-5.16	123.27	127.40
25	BA	826	U	C6-N1-C2	5.16	124.10	121.00
25	BA	2550	G	N3-C2-N2	-5.16	116.29	119.90
25	BA	2869	G	N7-C8-N9	5.16	115.68	113.10
25	DA	784	A	N9-C4-C5	5.16	107.86	105.80
25	DA	1769	G	C5-C6-O6	-5.16	125.50	128.60
25	DA	1792	G	C8-N9-C4	5.16	108.47	106.40
25	BA	458	G	N3-C4-C5	-5.16	126.02	128.60
25	BA	826	U	C2-N3-C4	-5.16	123.91	127.00
25	BA	1196	C	C6-N1-C2	-5.16	118.24	120.30
25	BA	1376	C	C5-C4-N4	-5.16	116.59	120.20
25	BA	2485	G	C2-N3-C4	-5.16	109.32	111.90
25	BA	2872	G	C4-C5-C6	5.16	121.89	118.80
25	DA	541	C	C6-N1-C2	5.16	122.36	120.30
1	AA	516	U	C6-N1-C2	-5.16	117.91	121.00
1	AA	581	G	C5-C6-O6	5.16	131.69	128.60
1	AA	713	G	C2-N3-C4	5.16	114.48	111.90
25	BA	38	A	C5-C6-N1	5.16	120.28	117.70
25	BA	224	G	C5-C6-N1	5.16	114.08	111.50
25	BA	978	G	N1-C6-O6	5.16	122.99	119.90
25	BA	1122	G	C4-C5-N7	5.16	112.86	110.80
25	BA	1279	G	C8-N9-C4	-5.16	104.34	106.40
25	BA	2726	U	N1-C2-O2	-5.16	119.19	122.80
1	CA	783	C	N3-C4-C5	5.16	123.96	121.90
25	BA	305	U	C4-C5-C6	5.16	122.79	119.70
25	BA	568	U	C5-C4-O4	-5.16	122.81	125.90
25	BA	2706	G	C4-C5-N7	5.16	112.86	110.80
25	DA	781	A	C8-N9-C4	-5.16	103.74	105.80
1	AA	550	G	N1-C6-O6	5.15	122.99	119.90
25	DA	135	G	N3-C4-N9	-5.15	122.91	126.00
25	DA	2365	G	C6-C5-N7	-5.15	127.31	130.40
1	AA	502	G	C5-C6-O6	-5.15	125.51	128.60
1	AA	513	C	N1-C2-N3	-5.15	115.59	119.20
1	AA	755	G	C4-N9-C1'	5.15	133.20	126.50
25	BA	613	G	C4-N9-C1'	-5.15	119.80	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1621	U	N1-C2-N3	5.15	117.99	114.90
25	BA	2076	U	N1-C2-O2	-5.15	119.19	122.80
25	BA	2325	G	N1-C6-O6	5.15	122.99	119.90
25	BA	2833	G	N3-C4-N9	5.15	129.09	126.00
42	BW	84	ARG	NE-CZ-NH1	5.15	122.88	120.30
25	DA	2553	G	C8-N9-C1'	-5.15	120.30	127.00
1	AA	7	G	C8-N9-C1'	5.15	133.69	127.00
25	BA	249	C	C5-C6-N1	-5.15	118.42	121.00
25	BA	968	G	C5-C6-N1	-5.15	108.92	111.50
25	BA	2070	G	N1-C2-N2	-5.15	111.56	116.20
25	BA	2345	G	N1-C2-N3	5.15	126.99	123.90
25	BA	2395	C	N3-C4-N4	5.15	121.61	118.00
26	BB	31	C	N1-C2-O2	5.15	121.99	118.90
1	CA	55	A	C8-N9-C4	-5.15	103.74	105.80
25	DA	1788	C	C2-N1-C1'	5.15	124.47	118.80
25	BA	1331	A	N9-C4-C5	5.15	107.86	105.80
25	BA	1849	G	N1-C6-O6	5.15	122.99	119.90
25	BA	2501	C	C2-N1-C1'	-5.15	113.14	118.80
25	DA	518	G	C4-N9-C1'	5.15	133.19	126.50
1	AA	975	A	N7-C8-N9	5.15	116.37	113.80
1	AA	1271	G	C5-C6-O6	-5.15	125.51	128.60
25	BA	204	A	C5-C6-N6	5.15	127.82	123.70
25	BA	766	C	C4-C5-C6	5.15	119.97	117.40
25	BA	1752	C	C5-C6-N1	-5.15	118.43	121.00
25	BA	1966	A	C4-C5-N7	5.15	113.27	110.70
1	CA	738	C	C5-C6-N1	5.15	123.57	121.00
25	DA	1470	G	N3-C2-N2	-5.15	116.30	119.90
25	DA	2032	G	C5-N7-C8	5.15	106.87	104.30
25	DA	2609	U	C6-N1-C2	-5.15	117.91	121.00
25	BA	335	C	C5-C6-N1	5.15	123.57	121.00
25	BA	831	G	N3-C4-C5	-5.15	126.03	128.60
26	BB	6	C	N3-C2-O2	5.15	125.50	121.90
25	DA	1214	A	C6-N1-C2	-5.15	115.51	118.60
1	AA	1357	A	N1-C6-N6	5.14	121.69	118.60
25	BA	845	G	N1-C6-O6	-5.14	116.81	119.90
25	BA	1217	C	N3-C4-N4	5.14	121.60	118.00
25	BA	2067	G	C2-N3-C4	5.14	114.47	111.90
25	BA	2097	C	N3-C2-O2	-5.14	118.30	121.90
25	BA	2482	G	N1-C2-N2	-5.14	111.57	116.20
25	BA	2803	C	N3-C4-C5	-5.14	119.84	121.90
25	DA	493	G	C5-N7-C8	-5.14	101.73	104.30
25	BA	365	C	C2-N1-C1'	-5.14	113.14	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2823	A	C4-C5-C6	5.14	119.57	117.00
35	BP	27	HIS	N-CA-C	5.14	124.89	111.00
1	CA	539	A	C2-N3-C4	5.14	113.17	110.60
25	DA	467	G	N9-C4-C5	-5.14	103.34	105.40
25	DA	2728	U	C5-C6-N1	-5.14	120.13	122.70
25	DA	2842	G	N3-C4-C5	5.14	131.17	128.60
25	BA	1159	U	N1-C2-N3	5.14	117.98	114.90
25	BA	1605	C	N1-C2-N3	5.14	122.80	119.20
25	BA	2705	A	C8-N9-C4	5.14	107.86	105.80
1	CA	39	G	N1-C6-O6	-5.14	116.82	119.90
1	CA	593	G	N1-C6-O6	5.14	122.98	119.90
25	DA	672	C	N1-C2-O2	-5.14	115.81	118.90
1	AA	240	C	C6-N1-C2	5.14	122.36	120.30
25	BA	776	G	N1-C2-N3	5.14	126.98	123.90
25	BA	862	G	C4-C5-C6	5.14	121.88	118.80
25	BA	2606	C	C2-N3-C4	-5.14	117.33	119.90
25	BA	2675	A	N1-C6-N6	-5.14	115.52	118.60
25	DA	306	U	C6-N1-C2	-5.14	117.92	121.00
25	DA	546	C	C6-N1-C2	-5.14	118.24	120.30
25	DA	1238	G	N1-C6-O6	-5.14	116.82	119.90
25	DA	2425	A	C5-C6-N1	5.14	120.27	117.70
25	BA	698	C	N3-C4-N4	5.14	121.60	118.00
25	BA	1372	U	C4-C5-C6	5.14	122.78	119.70
25	BA	2346	A	C2-N3-C4	-5.14	108.03	110.60
1	CA	44	G	C8-N9-C1'	-5.14	120.32	127.00
1	CA	1235	U	C5-C6-N1	5.14	125.27	122.70
25	DA	684	G	C8-N9-C4	-5.14	104.34	106.40
25	DA	2755	C	N3-C4-N4	5.14	121.60	118.00
26	DB	102	A	N9-C4-C5	-5.14	103.75	105.80
1	AA	872	A	C5-C6-N1	-5.14	115.13	117.70
25	BA	53	A	C4-C5-C6	5.14	119.57	117.00
25	BA	941	A	C8-N9-C1'	-5.14	118.45	127.70
1	CA	129(A)	G	C4-N9-C1'	5.14	133.18	126.50
25	DA	1421	G	C5-C6-N1	-5.14	108.93	111.50
1	AA	570	G	C4-C5-N7	5.13	112.85	110.80
1	AA	616	G	N7-C8-N9	5.13	115.67	113.10
1	AA	728	A	C6-C5-N7	-5.13	128.71	132.30
1	AA	882	C	N3-C4-N4	5.13	121.59	118.00
1	AA	1355	G	C8-N9-C4	-5.13	104.35	106.40
25	BA	220	G	C6-C5-N7	-5.13	127.32	130.40
25	BA	1149	G	N1-C6-O6	5.13	122.98	119.90
25	BA	2238	G	N3-C4-C5	-5.13	126.03	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2739	U	C2-N3-C4	-5.13	123.92	127.00
1	CA	1325	C	C6-N1-C1'	5.13	126.96	120.80
25	DA	1678	G	C4-C5-C6	5.13	121.88	118.80
25	DA	2716	U	N1-C2-N3	5.13	117.98	114.90
25	BA	2038	G	N1-C2-N2	-5.13	111.58	116.20
1	CA	572	A	C8-N9-C4	5.13	107.85	105.80
25	DA	825	C	C4-C5-C6	5.13	119.97	117.40
25	DA	1276	A	N9-C4-C5	-5.13	103.75	105.80
1	AA	811	C	C2-N3-C4	-5.13	117.33	119.90
25	BA	189	G	C2-N3-C4	-5.13	109.33	111.90
25	BA	224	G	C4-N9-C1'	5.13	133.17	126.50
25	BA	739	G	N1-C6-O6	-5.13	116.82	119.90
25	BA	828	U	C2-N3-C4	-5.13	123.92	127.00
25	BA	931	G	N3-C4-N9	5.13	129.08	126.00
52	B6	10	LEU	CA-CB-CG	5.13	127.10	115.30
25	DA	965	C	C6-N1-C2	-5.13	118.25	120.30
25	DA	2412	A	C8-N9-C4	-5.13	103.75	105.80
1	AA	1227	A	N3-C4-N9	-5.13	123.30	127.40
25	BA	857	C	C5-C4-N4	-5.13	116.61	120.20
25	BA	2308	G	C6-C5-N7	-5.13	127.32	130.40
25	BA	2320	A	C5-C6-N6	-5.13	119.60	123.70
1	AA	502	G	N1-C6-O6	5.13	122.98	119.90
25	BA	199	A	C6-C5-N7	5.13	135.89	132.30
25	BA	1586	A	C4-C5-C6	5.13	119.56	117.00
25	BA	1602	U	C5-C4-O4	5.13	128.98	125.90
25	BA	2455	G	N1-C6-O6	-5.13	116.82	119.90
25	BA	2492	U	N3-C2-O2	-5.13	118.61	122.20
25	BA	2714	G	C5-C6-O6	-5.13	125.52	128.60
26	BB	76	G	C5-C6-O6	-5.13	125.52	128.60
1	CA	337	C	C6-N1-C2	-5.13	118.25	120.30
1	CA	1259	C	C6-N1-C2	-5.13	118.25	120.30
25	DA	451	C	N3-C4-C5	5.13	123.95	121.90
25	DA	2195	C	C2-N1-C1'	-5.13	113.16	118.80
25	DA	2405	G	C8-N9-C1'	-5.13	120.33	127.00
25	DA	2695	C	C2-N1-C1'	-5.13	113.16	118.80
26	DB	22	U	C5-C6-N1	5.13	125.26	122.70
25	BA	22	C	N3-C4-N4	-5.13	114.41	118.00
25	BA	412	A	N7-C8-N9	-5.13	111.24	113.80
25	BA	866	A	C8-N9-C4	-5.13	103.75	105.80
25	BA	1220	A	C4-C5-N7	-5.13	108.14	110.70
25	BA	1904	G	C5-N7-C8	5.13	106.86	104.30
25	BA	2638	G	N3-C4-C5	-5.13	126.04	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	495	A	N9-C4-C5	5.13	107.85	105.80
25	DA	799	G	N1-C2-N3	5.13	126.97	123.90
25	BA	38	A	C5-N7-C8	5.12	106.46	103.90
1	CA	691	G	N9-C4-C5	-5.12	103.35	105.40
25	DA	1256	G	C4-N9-C1'	5.12	133.16	126.50
25	DA	1566	A	C2-N3-C4	-5.12	108.04	110.60
25	DA	2394	C	N1-C2-O2	5.12	121.97	118.90
25	BA	415	A	N1-C6-N6	-5.12	115.53	118.60
25	BA	1441	G	C2-N3-C4	5.12	114.46	111.90
25	BA	1531	C	C5-C6-N1	5.12	123.56	121.00
25	BA	1557	C	N3-C4-N4	-5.12	114.41	118.00
25	BA	1817	G	N3-C2-N2	5.12	123.49	119.90
25	BA	2569	G	N3-C4-N9	5.12	129.07	126.00
43	BX	94	GLY	N-CA-C	5.12	125.91	113.10
1	CA	733	A	C8-N9-C4	5.12	107.85	105.80
25	DA	15	G	C8-N9-C4	5.12	108.45	106.40
25	DA	34	C	N1-C2-O2	5.12	121.97	118.90
25	DA	242	G	C4-N9-C1'	-5.12	119.84	126.50
25	DA	2027	G	N3-C4-C5	-5.12	126.04	128.60
27	DD	211	ARG	NE-CZ-NH1	5.12	122.86	120.30
1	AA	1482	G	C8-N9-C1'	-5.12	120.34	127.00
1	AA	1496	C	N3-C4-N4	-5.12	114.42	118.00
25	BA	973	A	C6-C5-N7	-5.12	128.72	132.30
25	BA	979	G	C6-C5-N7	-5.12	127.33	130.40
25	BA	1345	C	N3-C4-C5	5.12	123.95	121.90
25	BA	1619	G	N9-C4-C5	5.12	107.45	105.40
25	BA	2192	G	C4-N9-C1'	5.12	133.16	126.50
25	BA	2375	G	C5-C6-N1	5.12	114.06	111.50
26	BB	5	C	C5-C6-N1	-5.12	118.44	121.00
26	BB	53	A	N1-C6-N6	5.12	121.67	118.60
1	CA	1516	G	C2-N3-C4	-5.12	109.34	111.90
25	DA	102	G	P-O3'-C3'	5.12	125.84	119.70
25	DA	145	G	N7-C8-N9	-5.12	110.54	113.10
25	DA	1128	A	C2-N3-C4	5.12	113.16	110.60
25	DA	1231	G	C5-C6-N1	-5.12	108.94	111.50
25	DA	1801	G	C6-N1-C2	-5.12	122.03	125.10
25	DA	1961	C	C2-N1-C1'	-5.12	113.17	118.80
25	DA	2007	C	C2-N1-C1'	-5.12	113.17	118.80
25	DA	2751	G	C2-N3-C4	5.12	114.46	111.90
1	AA	1331	G	C4-N9-C1'	-5.12	119.84	126.50
25	BA	575	A	C5-C6-N6	-5.12	119.60	123.70
1	CA	168	G	C8-N9-C4	5.12	108.45	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	525	C	N3-C4-N4	5.12	121.58	118.00
25	DA	125	G	N9-C4-C5	-5.12	103.35	105.40
25	DA	546	C	N1-C2-O2	5.12	121.97	118.90
25	DA	2283	C	N1-C2-O2	-5.12	115.83	118.90
25	BA	647	G	C5-C6-O6	5.12	131.67	128.60
25	BA	1228	G	C2-N3-C4	-5.12	109.34	111.90
25	BA	1617	C	N3-C4-C5	5.12	123.95	121.90
25	BA	2447	G	C4-N9-C1'	-5.12	119.85	126.50
25	DA	2831	G	N1-C6-O6	-5.12	116.83	119.90
25	BA	1028	A	C2-N3-C4	5.12	113.16	110.60
25	DA	1157	G	C4-N9-C1'	5.12	133.15	126.50
25	DA	1984	G	N7-C8-N9	5.12	115.66	113.10
1	AA	1094	G	N3-C4-C5	-5.12	126.04	128.60
1	AA	1406	U	N3-C4-C5	5.12	117.67	114.60
25	BA	263	C	C6-N1-C2	5.12	122.35	120.30
25	BA	312	G	N3-C2-N2	-5.12	116.32	119.90
25	BA	1613	G	C8-N9-C4	-5.12	104.35	106.40
25	BA	2575	C	C6-N1-C2	-5.12	118.25	120.30
26	BB	65	C	C5-C4-N4	-5.12	116.62	120.20
39	BT	127	ALA	N-CA-C	-5.12	97.19	111.00
1	AA	119	A	C5-C6-N1	5.11	120.26	117.70
25	BA	701	G	C8-N9-C4	5.11	108.45	106.40
25	BA	2296	U	N3-C4-C5	-5.11	111.53	114.60
25	BA	2335	A	N9-C4-C5	5.11	107.85	105.80
26	BB	37	C	N1-C2-O2	-5.11	115.83	118.90
25	DA	2006	C	C6-N1-C2	-5.11	118.25	120.30
26	DB	2	C	C2-N1-C1'	5.11	124.43	118.80
25	DA	624	C	N1-C2-O2	-5.11	115.83	118.90
1	AA	789	U	N1-C2-N3	5.11	117.97	114.90
1	CA	426	G	C8-N9-C4	-5.11	104.36	106.40
25	DA	1829	A	N1-C2-N3	5.11	131.86	129.30
1	AA	1064	G	C4-N9-C1'	-5.11	119.86	126.50
1	AA	1409	C	N1-C2-O2	-5.11	115.83	118.90
25	BA	1130	U	N1-C2-O2	5.11	126.38	122.80
25	BA	2310	A	C8-N9-C4	-5.11	103.76	105.80
25	DA	1531	C	N3-C4-N4	5.11	121.58	118.00
1	AA	890	G	N9-C4-C5	5.11	107.44	105.40
25	BA	336	C	C5-C6-N1	-5.11	118.45	121.00
25	BA	589	C	C5-C6-N1	-5.11	118.45	121.00
25	BA	993	G	C5-C6-O6	5.11	131.66	128.60
25	BA	1368	G	C6-N1-C2	-5.11	122.04	125.10
25	BA	1623	G	C5-N7-C8	-5.11	101.75	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2517	C	C5-C6-N1	-5.11	118.45	121.00
25	BA	2582	G	C2-N3-C4	5.11	114.45	111.90
1	CA	1272	G	N3-C4-N9	5.11	129.06	126.00
25	BA	1823	G	C5-N7-C8	-5.11	101.75	104.30
35	BP	44	GLY	N-CA-C	-5.11	100.33	113.10
25	DA	1789	A	C8-N9-C4	5.11	107.84	105.80
25	DA	1992	G	N7-C8-N9	5.11	115.65	113.10
25	DA	2590	A	C5-C6-N1	5.11	120.25	117.70
25	BA	1773	A	C6-C5-N7	-5.10	128.73	132.30
25	BA	1974	C	C2-N3-C4	-5.10	117.35	119.90
25	BA	2860	A	C6-N1-C2	-5.10	115.54	118.60
1	AA	399	G	C8-N9-C4	5.10	108.44	106.40
1	AA	774	G	N3-C4-N9	5.10	129.06	126.00
1	AA	783	C	C5-C6-N1	-5.10	118.45	121.00
25	BA	20	C	N3-C4-C5	5.10	123.94	121.90
25	BA	182	A	C5-C6-N6	-5.10	119.62	123.70
25	BA	577	G	N7-C8-N9	-5.10	110.55	113.10
25	BA	1308	A	N9-C4-C5	5.10	107.84	105.80
25	BA	1506	C	C6-N1-C1'	-5.10	114.68	120.80
25	BA	2273	A	N1-C2-N3	-5.10	126.75	129.30
25	BA	2677	G	C5-C6-O6	5.10	131.66	128.60
1	CA	730	G	C2-N3-C4	5.10	114.45	111.90
25	DA	1969	A	C5-N7-C8	-5.10	101.35	103.90
1	AA	798	G	C8-N9-C4	-5.10	104.36	106.40
1	AA	1019	C	P-O3'-C3'	5.10	125.82	119.70
25	BA	154	G	C4-N9-C1'	5.10	133.13	126.50
25	BA	210	C	N3-C4-C5	5.10	123.94	121.90
25	BA	862	G	N3-C2-N2	-5.10	116.33	119.90
25	BA	1663	C	N3-C4-C5	5.10	123.94	121.90
25	BA	1707	G	N1-C6-O6	5.10	122.96	119.90
25	BA	1989	G	C8-N9-C1'	-5.10	120.37	127.00
25	BA	2776	A	C5-N7-C8	-5.10	101.35	103.90
26	BB	38	C	C5-C6-N1	-5.10	118.45	121.00
1	CA	993	G	C4-N9-C1'	5.10	133.13	126.50
25	DA	1115	G	C4-N9-C1'	-5.10	119.87	126.50
25	DA	1670	C	N3-C2-O2	-5.10	118.33	121.90
25	DA	2528	U	N3-C4-C5	-5.10	111.54	114.60
1	AA	882	C	C2-N1-C1'	5.10	124.41	118.80
25	BA	1496	A	C2-N3-C4	5.10	113.15	110.60
25	BA	1816	G	C8-N9-C4	5.10	108.44	106.40
25	BA	1948	G	N3-C4-C5	-5.10	126.05	128.60
25	BA	2544	G	N1-C2-N3	5.10	126.96	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	113	G	N1-C6-O6	5.10	122.96	119.90
51	B5	55	ARG	N-CA-C	-5.10	97.23	111.00
1	CA	1142	G	C8-N9-C4	5.10	108.44	106.40
25	DA	2426	A	C5-C6-N6	-5.10	119.62	123.70
1	AA	405	U	N3-C2-O2	-5.10	118.63	122.20
25	BA	2383	G	N3-C4-N9	5.10	129.06	126.00
1	CA	357	G	C8-N9-C4	-5.10	104.36	106.40
1	CA	546	G	C2-N3-C4	5.10	114.45	111.90
25	DA	1556	C	C4-C5-C6	5.10	119.95	117.40
25	DA	2256	G	C2-N3-C4	5.10	114.45	111.90
1	AA	119	A	C6-N1-C2	-5.09	115.54	118.60
25	BA	154	G	C6-C5-N7	-5.09	127.34	130.40
25	BA	498	G	C5-N7-C8	5.09	106.85	104.30
25	BA	841	A	C5-N7-C8	-5.09	101.35	103.90
25	BA	2298	A	C6-C5-N7	5.09	135.87	132.30
25	DA	265	A	N1-C2-N3	5.09	131.85	129.30
25	DA	620	G	N9-C4-C5	5.09	107.44	105.40
42	DW	12	ILE	N-CA-C	-5.09	97.24	111.00
25	BA	348	G	N3-C4-C5	-5.09	126.05	128.60
25	BA	768	G	N1-C2-N3	5.09	126.96	123.90
25	BA	2431	U	C4-C5-C6	5.09	122.76	119.70
25	DA	2565	A	N3-C4-C5	5.09	130.37	126.80
26	DB	103	G	C5-C6-O6	-5.09	125.54	128.60
25	BA	295	G	C5-C6-O6	-5.09	125.55	128.60
25	BA	1384	A	N1-C6-N6	5.09	121.66	118.60
25	BA	2315	G	C6-C5-N7	-5.09	127.35	130.40
25	BA	2319	G	N1-C2-N3	5.09	126.95	123.90
25	BA	2836	U	N1-C2-O2	5.09	126.36	122.80
25	DA	187	G	N1-C2-N3	5.09	126.95	123.90
25	DA	2031	A	N9-C4-C5	-5.09	103.76	105.80
25	DA	2186	G	C5-C6-N1	-5.09	108.95	111.50
25	DA	2302	G	N1-C6-O6	5.09	122.95	119.90
25	DA	2502	G	N7-C8-N9	5.09	115.64	113.10
22	AY	63	LEU	CA-CB-CG	5.09	127.01	115.30
25	BA	1275	A	C5-C6-N1	-5.09	115.16	117.70
25	BA	1957	C	C5-C4-N4	5.09	123.76	120.20
25	BA	2673	G	N3-C2-N2	-5.09	116.34	119.90
26	BB	99	G	C8-N9-C4	5.09	108.44	106.40
25	BA	472	A	C6-C5-N7	-5.09	128.74	132.30
25	BA	662	G	N1-C2-N3	5.09	126.95	123.90
25	BA	1269	A	C2-N3-C4	-5.09	108.06	110.60
1	CA	715	A	C5-C6-N1	-5.09	115.16	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	693	C	C5-C6-N1	-5.09	118.46	121.00
1	AA	98	G	N1-C6-O6	5.09	122.95	119.90
25	BA	502	A	N9-C4-C5	5.09	107.83	105.80
25	BA	540	C	N1-C2-O2	-5.09	115.85	118.90
25	BA	814	C	C2-N1-C1'	-5.09	113.20	118.80
25	BA	1187	G	C4-C5-N7	-5.09	108.77	110.80
25	BA	1548	C	C6-N1-C2	-5.09	118.27	120.30
25	BA	2247	A	C8-N9-C4	-5.09	103.77	105.80
25	BA	2884	U	N3-C4-O4	-5.09	115.84	119.40
26	DB	54	G	C4-N9-C1'	5.09	133.11	126.50
25	BA	827	U	C2-N1-C1'	-5.08	111.60	117.70
25	BA	2409	G	N1-C2-N2	-5.08	111.62	116.20
25	BA	2869	G	C4-N9-C1'	5.08	133.11	126.50
25	DA	552	G	N3-C4-C5	5.08	131.14	128.60
25	DA	1669	A	N1-C2-N3	5.08	131.84	129.30
1	AA	1363(A)	A	C6-N1-C2	-5.08	115.55	118.60
25	BA	205	G	C8-N9-C1'	-5.08	120.39	127.00
25	BA	1118	C	C6-N1-C2	-5.08	118.27	120.30
25	BA	2867	G	N1-C6-O6	5.08	122.95	119.90
26	BB	115	G	C4-C5-N7	5.08	112.83	110.80
1	AA	732	C	N3-C2-O2	-5.08	118.34	121.90
25	BA	379	G	N3-C4-N9	-5.08	122.95	126.00
25	BA	380	U	C5-C6-N1	-5.08	120.16	122.70
25	BA	1624	G	N3-C2-N2	-5.08	116.34	119.90
25	BA	2251	G	N3-C4-C5	-5.08	126.06	128.60
25	BA	2499	C	C2-N3-C4	5.08	122.44	119.90
25	BA	2589	A	N7-C8-N9	-5.08	111.26	113.80
25	DA	1814	G	N7-C8-N9	5.08	115.64	113.10
25	DA	1936	A	C4-C5-N7	5.08	113.24	110.70
25	DA	2012	G	C6-C5-N7	-5.08	127.35	130.40
1	AA	70	G	N9-C4-C5	5.08	107.43	105.40
1	AA	503	C	C5-C6-N1	5.08	123.54	121.00
25	BA	148	C	C2-N1-C1'	-5.08	113.21	118.80
25	BA	2764	A	N1-C6-N6	-5.08	115.55	118.60
25	BA	2875	C	N1-C2-O2	5.08	121.95	118.90
53	B7	42	LEU	CB-CG-CD1	-5.08	102.36	111.00
25	DA	500	G	C5-C6-N1	-5.08	108.96	111.50
25	DA	2286	A	C8-N9-C1'	-5.08	118.56	127.70
1	AA	781	A	C4-C5-N7	5.08	113.24	110.70
25	BA	271(J)	C	C5-C4-N4	-5.08	116.65	120.20
25	BA	993	G	C5-C6-N1	-5.08	108.96	111.50
25	BA	2380	C	C2-N1-C1'	-5.08	113.21	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2430	A	N1-C2-N3	5.08	131.84	129.30
25	BA	2744	G	N1-C6-O6	5.08	122.95	119.90
1	CA	1430	C	C6-N1-C2	-5.08	118.27	120.30
25	DA	1797	C	C6-N1-C2	5.08	122.33	120.30
25	BA	1386	C	C4-C5-C6	5.08	119.94	117.40
25	BA	1812	A	N9-C4-C5	5.08	107.83	105.80
25	BA	1799	G	P-O3'-C3'	5.08	125.79	119.70
25	BA	1804	C	N3-C4-C5	5.08	123.93	121.90
25	BA	2372	G	N1-C2-N2	5.08	120.77	116.20
25	BA	2553	G	C2-N3-C4	5.08	114.44	111.90
25	BA	2767	C	N1-C2-O2	5.08	121.94	118.90
1	CA	878	G	C8-N9-C1'	-5.08	120.40	127.00
25	DA	27	G	C8-N9-C4	-5.08	104.37	106.40
25	DA	930	U	C5-C4-O4	-5.08	122.85	125.90
1	AA	527	G	N3-C4-N9	-5.07	122.96	126.00
1	AA	1206	G	N9-C4-C5	-5.07	103.37	105.40
1	AA	1264	C	C5-C4-N4	-5.07	116.65	120.20
25	BA	582	G	C5-C6-O6	5.07	131.64	128.60
25	BA	1154	G	C5-N7-C8	-5.07	101.76	104.30
25	BA	1390	U	N3-C2-O2	5.07	125.75	122.20
25	BA	1753	G	N3-C4-C5	5.07	131.14	128.60
25	BA	1848	A	C8-N9-C4	5.07	107.83	105.80
25	BA	2230	G	N3-C4-C5	5.07	131.14	128.60
25	BA	2574	G	N3-C2-N2	-5.07	116.35	119.90
26	BB	20	C	C2-N1-C1'	5.07	124.38	118.80
25	DA	329	G	C8-N9-C4	-5.07	104.37	106.40
25	DA	1770	G	C6-C5-N7	-5.07	127.36	130.40
1	AA	1150	U	C2-N3-C4	5.07	130.04	127.00
25	BA	1208	C	C2-N3-C4	-5.07	117.36	119.90
26	BB	114	C	N1-C2-O2	-5.07	115.86	118.90
36	BQ	125	LEU	CB-CG-CD1	-5.07	102.38	111.00
25	BA	1835	G	C5-N7-C8	-5.07	101.77	104.30
25	BA	2540	C	C2-N3-C4	-5.07	117.36	119.90
25	DA	781	A	C5-N7-C8	-5.07	101.36	103.90
25	DA	982	C	C2-N3-C4	5.07	122.44	119.90
25	DA	1452	A	N1-C6-N6	5.07	121.64	118.60
25	DA	2405	G	C5-C6-O6	5.07	131.64	128.60
25	DA	2502	G	C4-C5-C6	5.07	121.84	118.80
25	BA	545	G	N3-C4-C5	5.07	131.13	128.60
25	BA	1160	G	C6-N1-C2	5.07	128.14	125.10
25	BA	1948	G	C5-C6-N1	5.07	114.03	111.50
25	BA	2552	U	C4-C5-C6	5.07	122.74	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	1340	U	C2-N3-C4	-5.07	123.96	127.00
1	AA	155	C	N1-C2-O2	5.07	121.94	118.90
25	BA	1046	A	C8-N9-C4	-5.07	103.77	105.80
25	BA	1338	G	N1-C2-N2	-5.07	111.64	116.20
25	BA	136	G	C8-N9-C4	5.07	108.43	106.40
25	BA	1647	G	C4-C5-N7	-5.07	108.77	110.80
1	CA	377	G	N1-C6-O6	5.07	122.94	119.90
25	DA	74	A	C5-C6-N6	5.07	127.75	123.70
25	DA	341	G	N1-C2-N2	-5.07	111.64	116.20
25	DA	748	G	N3-C2-N2	5.07	123.45	119.90
1	AA	625	G	N7-C8-N9	5.06	115.63	113.10
25	BA	570	G	C6-N1-C2	-5.06	122.06	125.10
25	BA	2542	A	N3-C4-C5	5.06	130.34	126.80
1	AA	880	C	N3-C4-C5	5.06	123.92	121.90
25	BA	251	A	C5-N7-C8	5.06	106.43	103.90
25	BA	745	G	C5-C6-N1	5.06	114.03	111.50
25	BA	1676	A	C2-N3-C4	-5.06	108.07	110.60
26	BB	70	C	N3-C4-C5	5.06	123.92	121.90
25	DA	781	A	C5-C6-N6	-5.06	119.65	123.70
25	DA	933	A	N1-C6-N6	5.06	121.64	118.60
25	DA	945	A	C8-N9-C1'	-5.06	118.59	127.70
25	DA	1235	G	C8-N9-C4	-5.06	104.38	106.40
25	DA	1997	G	C5-C6-O6	-5.06	125.56	128.60
1	AA	348	G	N3-C4-N9	5.06	129.04	126.00
25	BA	513	A	C4-N9-C1'	5.06	135.41	126.30
25	BA	1527	G	C5-C6-O6	5.06	131.64	128.60
25	BA	1838	C	N3-C4-N4	5.06	121.54	118.00
25	BA	2727	G	N3-C2-N2	-5.06	116.36	119.90
1	CA	833	U	N1-C2-N3	5.06	117.94	114.90
1	AA	102	G	N3-C4-C5	-5.06	126.07	128.60
25	BA	257	A	C4-C5-C6	5.06	119.53	117.00
25	BA	1006	C	C6-N1-C2	5.06	122.32	120.30
25	BA	1667	G	C6-C5-N7	5.06	133.44	130.40
25	BA	2520	C	C2-N3-C4	-5.06	117.37	119.90
25	BA	2574	G	C6-C5-N7	-5.06	127.36	130.40
1	CA	895	G	N1-C6-O6	5.06	122.94	119.90
1	CA	1189	C	C6-N1-C2	5.06	122.32	120.30
25	DA	1694	C	C6-N1-C2	5.06	122.32	120.30
25	DA	2892	A	C8-N9-C4	-5.06	103.78	105.80
1	AA	884	U	C4-C5-C6	5.06	122.73	119.70
1	AA	1341	U	N1-C2-O2	-5.06	119.26	122.80
23	AV	76	A	C4-C5-N7	5.06	113.23	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	723	G	N9-C4-C5	-5.06	103.38	105.40
1	CA	304	U	C4-C5-C6	5.06	122.73	119.70
1	CA	1335	C	C6-N1-C2	5.06	122.32	120.30
25	DA	1121	C	N3-C4-N4	-5.06	114.46	118.00
25	BA	555	U	C2-N1-C1'	-5.06	111.63	117.70
25	BA	725	G	C2-N3-C4	-5.06	109.37	111.90
25	BA	1262	A	C5-N7-C8	-5.06	101.37	103.90
25	BA	2499	C	N3-C4-N4	5.06	121.54	118.00
29	BF	32	LEU	CA-CB-CG	-5.06	103.67	115.30
1	CA	879	C	C6-N1-C2	5.06	122.32	120.30
25	DA	2857	G	C5-N7-C8	-5.06	101.77	104.30
1	AA	804	U	N1-C2-N3	5.05	117.93	114.90
1	AA	832	C	C2-N1-C1'	5.05	124.36	118.80
1	AA	1352	C	N1-C2-N3	5.05	122.74	119.20
25	BA	652(F)	G	C8-N9-C4	5.05	108.42	106.40
25	BA	2248	C	N3-C2-O2	-5.05	118.36	121.90
25	BA	2431	U	C5-C4-O4	5.05	128.93	125.90
25	BA	2848	G	C6-C5-N7	-5.05	127.37	130.40
1	CA	1067	A	C8-N9-C4	-5.05	103.78	105.80
25	DA	861	A	C8-N9-C4	-5.05	103.78	105.80
25	BA	494	G	C6-C5-N7	-5.05	127.37	130.40
37	BR	107	ASP	CB-CG-OD2	-5.05	113.75	118.30
1	CA	773	G	N1-C2-N3	-5.05	120.87	123.90
1	CA	894	G	C2-N3-C4	-5.05	109.37	111.90
1	AA	15	G	C6-C5-N7	-5.05	127.37	130.40
1	AA	1137	C	C6-N1-C1'	5.05	126.86	120.80
25	BA	469	G	N1-C6-O6	-5.05	116.87	119.90
25	BA	802	A	C8-N9-C1'	-5.05	118.61	127.70
25	BA	2498	C	C2-N3-C4	-5.05	117.37	119.90
25	BA	2608	G	C5-C6-N1	-5.05	108.97	111.50
37	BR	2	ARG	CA-CB-CG	5.05	124.51	113.40
25	DA	1616	A	C4-C5-N7	5.05	113.22	110.70
1	AA	266	G	N3-C4-N9	5.05	129.03	126.00
25	BA	334	C	C2-N1-C1'	5.05	124.35	118.80
25	BA	373	U	N3-C4-C5	5.05	117.63	114.60
25	BA	465	G	N3-C4-N9	5.05	129.03	126.00
25	BA	1567	A	C8-N9-C4	-5.05	103.78	105.80
25	BA	1975	G	C8-N9-C4	-5.05	104.38	106.40
25	BA	2724	C	C5-C4-N4	-5.05	116.67	120.20
25	BA	2812	G	N1-C6-O6	-5.05	116.87	119.90
25	DA	197	A	C6-N1-C2	-5.05	115.57	118.60
25	DA	510	C	C2-N1-C1'	5.05	124.36	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	2440	C	C4-C5-C6	5.05	119.92	117.40
25	BA	2334	G	N1-C2-N2	-5.05	111.66	116.20
25	DA	253	C	C5-C4-N4	-5.05	116.67	120.20
25	DA	1354	A	C5-C6-N1	5.05	120.22	117.70
25	DA	1698	A	C6-N1-C2	5.05	121.63	118.60
1	AA	541	G	N9-C4-C5	5.05	107.42	105.40
1	AA	1135	U	N1-C2-O2	5.05	126.33	122.80
25	BA	245	G	N1-C6-O6	5.05	122.93	119.90
25	BA	693	C	C4-C5-C6	5.05	119.92	117.40
25	BA	752	A	C4-C5-N7	-5.05	108.18	110.70
25	BA	1614	A	C2-N3-C4	-5.05	108.08	110.60
25	BA	1776	G	C6-C5-N7	-5.05	127.37	130.40
25	BA	2703	C	C2-N1-C1'	5.05	124.35	118.80
26	BB	89	G	N3-C4-N9	5.05	129.03	126.00
25	DA	718	A	N1-C6-N6	5.05	121.63	118.60
25	DA	788	A	N9-C4-C5	-5.05	103.78	105.80
25	DA	1814	G	N1-C2-N3	5.05	126.93	123.90
25	DA	2608	G	C2-N3-C4	-5.05	109.38	111.90
42	DW	92	ARG	NE-CZ-NH2	-5.05	117.78	120.30
1	AA	806	C	C5-C4-N4	-5.04	116.67	120.20
1	AA	1169	A	C8-N9-C4	-5.04	103.78	105.80
1	CA	1523	G	C8-N9-C4	-5.04	104.38	106.40
1	AA	1153	C	N1-C2-O2	5.04	121.93	118.90
25	BA	176	G	N1-C6-O6	5.04	122.93	119.90
25	BA	231	C	N1-C2-N3	5.04	122.73	119.20
25	BA	333	G	N9-C4-C5	5.04	107.42	105.40
25	BA	944	G	C8-N9-C4	-5.04	104.38	106.40
25	BA	1116	C	C6-N1-C2	5.04	122.32	120.30
25	BA	1131	G	C5-C6-O6	5.04	131.63	128.60
25	BA	1361	G	N3-C4-C5	5.04	131.12	128.60
25	BA	1812	A	C6-N1-C2	-5.04	115.57	118.60
25	BA	2055	C	N1-C2-O2	-5.04	115.87	118.90
25	BA	2450	A	C5-N7-C8	-5.04	101.38	103.90
25	BA	2491	U	N3-C4-C5	5.04	117.63	114.60
1	CA	413	G	C8-N9-C1'	-5.04	120.44	127.00
1	CA	662	G	N3-C4-N9	5.04	129.03	126.00
1	CA	1081	G	N3-C4-N9	5.04	129.03	126.00
1	CA	1528	U	C6-N1-C2	5.04	124.03	121.00
25	DA	115	C	C5-C6-N1	-5.04	118.48	121.00
25	DA	1492	G	N3-C2-N2	-5.04	116.37	119.90
1	AA	63	C	C6-N1-C2	-5.04	118.28	120.30
25	BA	115	C	N1-C2-O2	-5.04	115.88	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	587	C	N3-C4-N4	-5.04	114.47	118.00
25	BA	1343	G	C5-C6-O6	5.04	131.62	128.60
1	CA	7	G	N1-C6-O6	5.04	122.92	119.90
25	DA	116	C	C6-N1-C1'	5.04	126.85	120.80
25	DA	472	A	N1-C6-N6	5.04	121.62	118.60
25	DA	1774	C	C6-N1-C2	-5.04	118.28	120.30
23	AV	46	G	C4-C5-N7	5.04	112.82	110.80
25	BA	118	A	N7-C8-N9	-5.04	111.28	113.80
25	BA	450	G	C2-N3-C4	5.04	114.42	111.90
25	BA	506	G	N3-C4-C5	-5.04	126.08	128.60
25	BA	1108	U	C5-C4-O4	5.04	128.92	125.90
25	BA	2105	C	C5-C4-N4	5.04	123.73	120.20
25	DA	509	C	C2-N3-C4	-5.04	117.38	119.90
1	AA	199	G	C8-N9-C1'	-5.04	120.45	127.00
25	BA	339	U	C5-C6-N1	-5.04	120.18	122.70
25	BA	746	A	C4-C5-N7	5.04	113.22	110.70
25	BA	1177	A	N3-C4-C5	-5.04	123.27	126.80
25	BA	1897	G	N9-C4-C5	-5.04	103.39	105.40
25	BA	2318	G	C4-C5-C6	5.04	121.82	118.80
25	BA	2569	G	N1-C2-N2	-5.04	111.67	116.20
26	BB	82	G	N7-C8-N9	-5.04	110.58	113.10
1	CA	597	G	C5-C6-N1	5.04	114.02	111.50
1	CA	1429	C	N3-C2-O2	-5.04	118.37	121.90
25	BA	715	G	N3-C4-C5	-5.04	126.08	128.60
25	BA	962	G	C6-N1-C2	-5.04	122.08	125.10
25	BA	2363	C	N1-C2-O2	-5.04	115.88	118.90
25	BA	2819	G	N1-C6-O6	5.04	122.92	119.90
25	DA	1834	U	N1-C2-O2	5.04	126.33	122.80
26	DB	56	G	C2-N3-C4	5.04	114.42	111.90
1	AA	1358	U	C6-N1-C1'	5.04	128.25	121.20
25	BA	480	A	C8-N9-C4	-5.04	103.78	105.80
25	BA	962	G	C4-C5-C6	5.04	121.82	118.80
25	BA	1781	C	C6-N1-C1'	-5.04	114.76	120.80
25	BA	1888	G	N7-C8-N9	5.04	115.62	113.10
25	BA	2754	U	N3-C4-O4	5.04	122.92	119.40
1	CA	1520	G	C6-C5-N7	5.04	133.42	130.40
25	DA	1187	G	N7-C8-N9	5.04	115.62	113.10
26	DB	102	A	C4-C5-N7	5.04	113.22	110.70
1	AA	297	G	N9-C4-C5	-5.03	103.39	105.40
1	AA	616	G	C8-N9-C4	-5.03	104.39	106.40
25	BA	366	C	C4-C5-C6	5.03	119.92	117.40
25	BA	437	G	N3-C4-N9	5.03	129.02	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	554	U	N1-C2-N3	5.03	117.92	114.90
25	BA	932	G	N1-C6-O6	-5.03	116.88	119.90
25	BA	1015	G	N1-C6-O6	5.03	122.92	119.90
25	BA	1579	A	C8-N9-C4	-5.03	103.79	105.80
1	CA	12	U	N3-C4-C5	-5.03	111.58	114.60
1	CA	329	A	C8-N9-C4	-5.03	103.79	105.80
1	CA	1531	A	N1-C6-N6	5.03	121.62	118.60
25	DA	612	C	C2-N1-C1'	-5.03	113.26	118.80
25	DA	923	C	C5-C6-N1	5.03	123.52	121.00
25	DA	1964	G	N3-C4-C5	-5.03	126.08	128.60
1	AA	598	U	C5-C6-N1	5.03	125.22	122.70
18	AR	31	LEU	CA-CB-CG	5.03	126.87	115.30
25	BA	1021	A	C4-C5-C6	5.03	119.52	117.00
1	CA	616	G	N3-C4-N9	5.03	129.02	126.00
25	DA	6	A	N3-C4-C5	-5.03	123.28	126.80
25	DA	2104	G	N3-C2-N2	5.03	123.42	119.90
1	AA	98	G	N7-C8-N9	5.03	115.62	113.10
1	AA	1309	G	N9-C4-C5	-5.03	103.39	105.40
25	BA	271(W)	G	C5-C6-O6	5.03	131.62	128.60
25	BA	1221	C	N1-C2-O2	-5.03	115.88	118.90
25	BA	1965	C	N1-C2-O2	5.03	121.92	118.90
25	BA	2090	G	C4-C5-N7	-5.03	108.79	110.80
25	BA	2230	G	N3-C4-N9	-5.03	122.98	126.00
25	BA	2321	G	N3-C2-N2	-5.03	116.38	119.90
25	BA	2630	G	C8-N9-C4	5.03	108.41	106.40
1	CA	851	G	C6-C5-N7	-5.03	127.38	130.40
1	CA	869	G	C5-C6-N1	-5.03	108.98	111.50
25	DA	378	C	N3-C4-C5	5.03	123.91	121.90
25	DA	798	G	C5-C6-N1	-5.03	108.98	111.50
25	DA	2697	G	N9-C4-C5	-5.03	103.39	105.40
1	AA	748	C	C6-N1-C2	-5.03	118.29	120.30
25	BA	2345	G	C4-C5-C6	5.03	121.82	118.80
32	BI	31	LEU	C-N-CD	5.03	138.96	128.40
1	AA	307	C	N3-C4-C5	-5.03	119.89	121.90
1	AA	504	C	N3-C2-O2	-5.03	118.38	121.90
1	AA	550	G	C5-C6-O6	-5.03	125.58	128.60
25	BA	134	C	N3-C4-C5	-5.03	119.89	121.90
25	BA	180	G	N1-C6-O6	5.03	122.92	119.90
25	BA	567	A	N1-C2-N3	5.03	131.81	129.30
25	BA	1110	G	C4-N9-C1'	5.03	133.03	126.50
25	BA	1976	U	N3-C2-O2	-5.03	118.68	122.20
25	BA	2662	A	C8-N9-C4	-5.03	103.79	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	644	G	N7-C8-N9	-5.03	110.59	113.10
25	DA	1354	A	N1-C6-N6	-5.03	115.58	118.60
25	BA	271(M)	G	C5-C6-N1	5.03	114.01	111.50
25	BA	1155	A	C2-N3-C4	5.03	113.11	110.60
25	BA	1514	U	C6-N1-C2	-5.03	117.98	121.00
25	BA	1820	U	N3-C2-O2	-5.03	118.68	122.20
25	BA	1825	A	N7-C8-N9	-5.03	111.29	113.80
25	BA	1994	C	N1-C2-O2	-5.03	115.89	118.90
25	BA	2610	C	P-O3'-C3'	5.03	125.73	119.70
26	BB	30	C	C2-N3-C4	5.03	122.41	119.90
1	CA	377	G	C6-C5-N7	-5.03	127.39	130.40
25	DA	1923	U	C5-C6-N1	5.03	125.21	122.70
25	DA	1964	G	C5-C6-O6	-5.03	125.58	128.60
25	BA	1251	C	N1-C2-O2	-5.02	115.89	118.90
25	BA	1983	C	C2-N1-C1'	-5.02	113.27	118.80
25	BA	2094	G	C5-C6-N1	5.02	114.01	111.50
1	AA	371	G	C5-C6-O6	-5.02	125.59	128.60
25	BA	768	G	N1-C6-O6	5.02	122.91	119.90
25	BA	1031	G	N3-C4-C5	-5.02	126.09	128.60
25	BA	1154	G	C4-C5-N7	5.02	112.81	110.80
25	BA	2033	A	C2-N3-C4	5.02	113.11	110.60
25	BA	2224	G	N7-C8-N9	5.02	115.61	113.10
25	BA	2241	A	C8-N9-C4	-5.02	103.79	105.80
25	BA	2502	G	N3-C4-C5	-5.02	126.09	128.60
25	BA	2722	G	C8-N9-C4	5.02	108.41	106.40
26	BB	30	C	C5-C6-N1	5.02	123.51	121.00
1	CA	1484	C	N3-C4-C5	5.02	123.91	121.90
25	DA	142	A	C8-N9-C4	-5.02	103.79	105.80
25	BA	1940	U	N1-C2-N3	5.02	117.91	114.90
25	BA	2866	U	N3-C4-C5	-5.02	111.59	114.60
26	BB	79	C	C5-C4-N4	5.02	123.72	120.20
1	AA	728	A	C4-C5-N7	5.02	113.21	110.70
1	AA	1412	C	C6-N1-C2	5.02	122.31	120.30
25	BA	307	G	N1-C6-O6	5.02	122.91	119.90
25	BA	1256	G	C8-N9-C1'	-5.02	120.47	127.00
25	BA	1600	C	C5-C6-N1	-5.02	118.49	121.00
25	BA	1621	U	C4-C5-C6	5.02	122.71	119.70
25	BA	1664	A	C2-N3-C4	5.02	113.11	110.60
25	BA	2374	C	C2-N3-C4	-5.02	117.39	119.90
25	BA	2588	G	N3-C4-N9	-5.02	122.99	126.00
25	DA	798	G	N3-C4-N9	-5.02	122.99	126.00
25	BA	271(W)	G	N3-C2-N2	5.02	123.41	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1190	G	C2-N3-C4	-5.02	109.39	111.90
26	BB	43	C	N3-C2-O2	-5.02	118.39	121.90
1	CA	1338	G	N1-C6-O6	-5.02	116.89	119.90
25	DA	391	G	C5-C6-N1	-5.02	108.99	111.50
25	DA	528	A	C8-N9-C4	-5.02	103.79	105.80
25	DA	1219	G	N3-C4-C5	5.02	131.11	128.60
25	DA	1299	G	C8-N9-C4	-5.02	104.39	106.40
25	DA	2356	C	C6-N1-C2	5.02	122.31	120.30
25	DA	2827	C	N3-C2-O2	5.02	125.41	121.90
1	AA	1145	C	N3-C4-C5	-5.02	119.89	121.90
25	BA	779	U	C5-C4-O4	-5.02	122.89	125.90
25	BA	2453	A	N9-C4-C5	5.02	107.81	105.80
1	CA	93	G	N3-C4-C5	-5.02	126.09	128.60
25	DA	760	G	N7-C8-N9	5.02	115.61	113.10
25	DA	1482	G	C2-N3-C4	5.02	114.41	111.90
1	AA	1253	G	N3-C4-N9	5.01	129.01	126.00
1	AA	1331	G	N3-C4-C5	5.01	131.11	128.60
25	BA	922	U	N3-C4-O4	-5.01	115.89	119.40
25	BA	1278	A	N1-C6-N6	5.01	121.61	118.60
25	DA	1377	G	C4-C5-C6	5.01	121.81	118.80
25	BA	468	G	C4-C5-N7	-5.01	108.80	110.80
25	BA	1751	C	N3-C2-O2	5.01	125.41	121.90
25	BA	2562	U	C4-C5-C6	5.01	122.71	119.70
25	DA	1266	G	N3-C4-N9	5.01	129.01	126.00
25	DA	2246	G	C2-N3-C4	-5.01	109.39	111.90
25	DA	2455	G	C4-N9-C1'	5.01	133.02	126.50
1	AA	421	U	C5-C6-N1	5.01	125.21	122.70
1	AA	1274	G	N7-C8-N9	5.01	115.61	113.10
23	AV	2	G	C8-N9-C4	-5.01	104.39	106.40
25	BA	1042	G	C4-C5-N7	5.01	112.80	110.80
25	BA	1334	G	N9-C4-C5	-5.01	103.39	105.40
25	BA	1631(A)	A	N7-C8-N9	5.01	116.31	113.80
25	BA	1831	G	C5-C6-O6	-5.01	125.59	128.60
25	BA	1978	A	N1-C2-N3	-5.01	126.80	129.30
25	BA	2008	C	N1-C2-O2	-5.01	115.89	118.90
25	BA	2197	U	C6-N1-C2	5.01	124.01	121.00
25	BA	2265	U	C4-C5-C6	5.01	122.71	119.70
25	BA	2607	G	C5-C6-N1	5.01	114.01	111.50
1	CA	436	C	C5-C6-N1	5.01	123.50	121.00
9	CI	107	ARG	CG-CD-NE	5.01	122.32	111.80
25	DA	92	A	C6-C5-N7	-5.01	128.79	132.30
25	DA	503	A	N9-C4-C5	5.01	107.80	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	DA	755	C	N1-C2-O2	-5.01	115.89	118.90
25	DA	945	A	N1-C2-N3	5.01	131.81	129.30
25	DA	1667	G	C8-N9-C4	5.01	108.40	106.40
1	AA	226	G	N7-C8-N9	-5.01	110.59	113.10
1	AA	509	A	C3'-C2'-C1'	-5.01	97.49	101.50
1	AA	527	G	N3-C4-C5	5.01	131.10	128.60
25	BA	141	A	C5-C6-N1	-5.01	115.19	117.70
25	BA	802	A	N1-C6-N6	5.01	121.61	118.60
26	BB	45	A	C5-C6-N6	5.01	127.71	123.70
54	B8	60	LEU	CB-CG-CD1	-5.01	102.48	111.00
25	DA	60	G	C8-N9-C1'	5.01	133.51	127.00
25	DA	90	U	N3-C4-O4	5.01	122.91	119.40
25	DA	574	C	C2-N3-C4	5.01	122.40	119.90
25	DA	1670	C	C6-N1-C2	-5.01	118.30	120.30
25	DA	1992	G	P-O3'-C3'	5.01	125.71	119.70
25	DA	2476	A	N9-C4-C5	5.01	107.80	105.80
25	DA	1670	C	N1-C2-N3	5.01	122.70	119.20
25	DA	1789	A	N7-C8-N9	-5.01	111.30	113.80
25	DA	2824	C	C6-N1-C2	5.01	122.30	120.30
1	AA	166	G	C2-N3-C4	5.01	114.40	111.90
1	AA	990	C	C2-N1-C1'	5.01	124.31	118.80
25	BA	414	C	C5-C4-N4	-5.01	116.70	120.20
25	BA	851	U	C6-N1-C2	5.01	124.00	121.00
25	BA	2508	G	N1-C2-N2	5.01	120.71	116.20
1	CA	1373	G	C8-N9-C4	-5.01	104.40	106.40
25	DA	314	A	C4-C5-C6	-5.01	114.50	117.00
25	DA	1671	U	N3-C2-O2	5.01	125.70	122.20
25	DA	2361	A	N1-C2-N3	5.01	131.80	129.30
1	AA	98	G	C4-N9-C1'	5.00	133.01	126.50
1	AA	1442	G	C5-C6-N1	-5.00	109.00	111.50
25	BA	1777	U	C4-C5-C6	5.00	122.70	119.70
25	BA	186	G	C6-C5-N7	-5.00	127.40	130.40
25	BA	228	A	C8-N9-C1'	5.00	136.71	127.70
25	BA	365	C	C6-N1-C1'	5.00	126.81	120.80
25	BA	652(H)	C	N3-C2-O2	-5.00	118.40	121.90
25	BA	1389	G	C5-N7-C8	5.00	106.80	104.30
25	BA	1415	U	C5-C4-O4	5.00	128.90	125.90
25	BA	2324	C	N1-C2-O2	5.00	121.90	118.90
28	BE	78	LEU	CA-CB-CG	5.00	126.81	115.30
1	CA	509	A	N7-C8-N9	5.00	116.30	113.80
1	CA	923	A	N1-C2-N3	5.00	131.80	129.30
17	CQ	6	LEU	CA-CB-CG	5.00	126.81	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	117	G	N1-C2-N3	5.00	126.90	123.90
1	AA	372	C	N1-C2-O2	5.00	121.90	118.90
25	BA	39	C	C6-N1-C2	5.00	122.30	120.30
25	BA	216	A	N9-C4-C5	5.00	107.80	105.80
25	BA	1561	G	N9-C4-C5	-5.00	103.40	105.40
25	BA	1617	C	C2-N3-C4	-5.00	117.40	119.90
25	BA	2897	U	C5-C4-O4	-5.00	122.90	125.90
51	B5	60	VAL	CB-CA-C	-5.00	101.90	111.40
1	CA	865	A	N1-C6-N6	5.00	121.60	118.60
25	DA	603	A	C8-N9-C4	5.00	107.80	105.80
25	DA	1937	A	C4-C5-C6	5.00	119.50	117.00
25	DA	1990	C	C5-C4-N4	5.00	123.70	120.20
25	DA	2288	A	N7-C8-N9	5.00	116.30	113.80

There are no chirality outliers.

All (82) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	189(D)	C	Sidechain
2	AB	14	GLY	Peptide
2	AB	23	ARG	Peptide
2	AB	71	VAL	Peptide
2	AB	76	GLN	Peptide
3	AC	110	ASN	Peptide
3	AC	166	GLU	Peptide
4	AD	109	GLY	Peptide
4	AD	177	ASP	Peptide
4	AD	29	PRO	Peptide
4	AD	30	LYS	Peptide
5	AE	85	GLY	Peptide
5	AE	97	GLY	Peptide
7	AG	57	GLU	Peptide
9	AI	45	ALA	Peptide
9	AI	53	VAL	Peptide
9	AI	56	LEU	Peptide
10	AJ	55	LYS	Peptide
10	AJ	80	LYS	Peptide
11	AK	48	ILE	Peptide
12	AL	89	ARG	Peptide
13	AM	10	PRO	Peptide
13	AM	65	LYS	Peptide
13	AM	68	GLY	Peptide

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Mol	Chain	Res	Type	Group
18	AR	31	LEU	Peptide
20	AT	101	GLY	Peptide
20	AT	98	PRO	Peptide
22	AY	11	PRO	Peptide
47	B1	83	GLU	Peptide
50	B4	42	PHE	Peptide
51	B5	53	ALA	Peptide
27	BD	141	VAL	Peptide
27	BD	239	ARG	Peptide
28	BE	203	LYS	Peptide
28	BE	72	VAL	Peptide
29	BF	129	PHE	Peptide
29	BF	85	GLY	Peptide
32	BI	10	GLU	Peptide
32	BI	106	GLY	Peptide
32	BI	107	VAL	Peptide
34	BO	48	PRO	Peptide
35	BP	25	SER	Peptide
36	BQ	1	MET	Peptide
36	BQ	60	ARG	Peptide
38	BS	82	ILE	Peptide
39	BT	126	ALA	Peptide
43	BX	24	GLY	Peptide
45	BZ	159	PRO	Peptide
1	CA	129(A)	G	Sidechain
2	CB	22	LYS	Peptide
2	CB	71	VAL	Peptide
4	CD	147	ALA	Peptide
4	CD	28	SER	Peptide
4	CD	29	PRO	Peptide
4	CD	3	ARG	Peptide
4	CD	30	LYS	Peptide
5	CE	36	ASP	Peptide
7	CG	113	GLU	Peptide
10	CJ	55	LYS	Peptide
10	CJ	90	LEU	Peptide
13	CM	44	ARG	Peptide
13	CM	65	LYS	Peptide
14	CN	14	PRO	Peptide
16	CP	15	PRO	Peptide
20	CT	11	SER	Peptide
20	CT	45	GLN	Peptide

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Mol	Chain	Res	Type	Group
21	CU	6	ARG	Peptide
47	D1	83	GLU	Peptide
48	D2	43	GLN	Peptide
50	D4	42	PHE	Peptide
52	D6	43	CYS	Peptide
28	DE	72	VAL	Peptide
29	DF	85	GLY	Peptide
30	DG	13	GLU	Peptide
30	DG	49	ASP	Peptide
30	DG	50	ALA	Peptide
31	DH	92	ILE	Peptide
34	DO	48	PRO	Peptide
35	DP	26	GLY	Peptide
36	DQ	1	MET	Peptide
38	DS	82	ILE	Peptide
39	DT	126	ALA	Peptide

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	31513	0	15906	882	0
1	CA	31406	0	15852	823	0
2	AB	1809	0	1781	104	0
2	CB	1817	0	1785	126	0
3	AC	1434	0	1299	59	0
3	CC	1453	0	1320	64	0
4	AD	1520	0	1407	80	0
4	CD	1537	0	1430	81	1
5	AE	1105	0	1130	50	0
5	CE	1115	0	1145	55	0
6	AF	781	0	741	36	1
6	CF	784	0	739	30	0
7	AG	1152	0	1098	58	0
7	CG	1149	0	1096	52	0
8	AH	1045	0	1033	52	0
8	CH	1049	0	1037	52	0
9	AI	863	0	760	54	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
9	CI	849	0	735	54	0
10	AJ	659	0	552	38	0
10	CJ	657	0	547	40	0
11	AK	843	0	841	34	0
11	CK	828	0	822	31	0
12	AL	909	0	927	50	0
12	CL	905	0	916	30	0
13	AM	814	0	765	47	0
13	CM	784	0	730	51	0
14	AN	473	0	491	39	0
14	CN	469	0	482	37	0
15	AO	724	0	749	34	0
15	CO	724	0	749	30	0
16	AP	646	0	636	42	0
16	CP	661	0	653	45	0
17	AQ	823	0	891	52	0
17	CQ	819	0	880	38	0
18	AR	514	0	530	27	0
18	CR	514	0	530	21	0
19	AS	560	0	466	24	0
19	CS	529	0	443	22	0
20	AT	714	0	775	41	0
20	CT	773	0	836	32	0
21	AU	217	0	234	7	0
21	CU	180	0	173	4	0
22	AY	1031	0	1087	85	0
23	AV	1644	0	836	23	0
23	CV	1644	0	836	38	0
24	AX	131	0	66	4	0
24	CX	131	0	66	2	0
25	BA	59281	0	29884	1053	0
25	DA	58627	0	29570	1197	0
26	BB	2573	0	1306	47	0
26	DB	2573	0	1306	83	0
27	BD	2131	0	2207	97	0
27	DD	2136	0	2218	104	0
28	BE	1555	0	1607	65	0
28	DE	1555	0	1607	72	0
29	BF	1576	0	1616	71	0
29	DF	1578	0	1623	96	0
30	BG	1368	0	1324	52	0
30	DG	1361	0	1316	76	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
31	BH	1317	0	1376	52	0
31	DH	1317	0	1376	59	0
32	BI	1066	0	1095	47	0
32	DI	1057	0	1087	56	0
33	BN	1112	0	1180	49	0
33	DN	1112	0	1180	64	0
34	BO	923	0	981	37	0
34	DO	923	0	981	38	0
35	BP	1131	0	1201	61	0
35	DP	1131	0	1201	66	0
36	BQ	1122	0	1179	46	0
36	DQ	1122	0	1179	66	0
37	BR	968	0	1033	42	0
37	DR	968	0	1033	56	0
38	BS	865	0	905	53	0
38	DS	873	0	927	64	0
39	BT	1072	0	1116	31	0
39	DT	1058	0	1098	35	0
40	BU	959	0	1019	35	0
40	DU	959	0	1019	49	0
41	BV	766	0	827	24	0
41	DV	770	0	838	40	0
42	BW	890	0	951	33	0
42	DW	877	0	932	32	0
43	BX	742	0	799	36	0
43	DX	732	0	777	17	0
44	BY	785	0	828	25	0
44	DY	781	0	829	42	0
45	BZ	1454	0	1452	66	0
45	DZ	1451	0	1421	72	0
46	B0	594	0	604	30	0
46	D0	607	0	622	39	0
47	B1	745	0	804	33	0
47	D1	745	0	804	37	0
48	B2	588	0	643	28	0
48	D2	584	0	623	26	0
49	B3	458	0	503	16	0
49	D3	453	0	501	28	0
50	B4	349	0	336	22	0
50	D4	349	0	336	19	0
51	B5	455	0	472	20	0
51	D5	451	0	461	25	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
52	B6	449	0	462	25	0
52	D6	437	0	440	16	0
53	B7	418	0	467	22	0
53	D7	402	0	434	11	0
54	B8	509	0	565	24	0
54	D8	509	0	565	26	0
55	B9	297	0	316	16	0
55	D9	292	0	313	14	0
56	AA	348	0	0	0	0
56	AD	2	0	0	0	0
56	AE	1	0	0	0	0
56	AF	1	0	0	0	0
56	AI	2	0	0	0	0
56	AK	1	0	0	0	0
56	AT	1	0	0	0	0
56	AV	18	0	0	0	0
56	AY	1	0	0	0	0
56	B0	5	0	0	0	0
56	B1	3	0	0	0	0
56	B2	2	0	0	0	0
56	B3	2	0	0	0	0
56	B5	3	0	0	0	0
56	B6	1	0	0	0	0
56	B7	1	0	0	0	0
56	B8	2	0	0	0	0
56	B9	1	0	0	0	0
56	BA	896	0	0	0	0
56	BB	30	0	0	0	0
56	BD	5	0	0	0	0
56	BE	5	0	0	0	0
56	BF	7	0	0	0	0
56	BG	2	0	0	0	0
56	BO	2	0	0	0	0
56	BP	2	0	0	0	0
56	BQ	4	0	0	0	0
56	BR	2	0	0	0	0
56	BT	1	0	0	0	0
56	BU	1	0	0	0	0
56	BV	2	0	0	0	0
56	BX	1	0	0	0	0
56	BY	2	0	0	0	0
56	BZ	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	CA	219	0	0	0	0
56	CD	1	0	0	0	0
56	CT	1	0	0	0	0
56	CV	10	0	0	0	0
56	CX	1	0	0	0	0
56	D0	4	0	0	0	0
56	D1	1	0	0	0	0
56	D5	1	0	0	0	0
56	D6	2	0	0	0	0
56	D7	1	0	0	0	0
56	D8	1	0	0	0	0
56	DA	696	0	0	0	0
56	DB	16	0	0	0	0
56	DD	4	0	0	0	0
56	DE	4	0	0	0	0
56	DF	3	0	0	0	0
56	DO	3	0	0	0	0
56	DQ	2	0	0	0	0
56	DR	1	0	0	0	0
56	DT	3	0	0	0	0
56	DU	1	0	0	0	0
56	DV	1	0	0	0	0
56	DX	1	0	0	0	0
57	AD	1	0	0	0	0
57	AN	1	0	0	0	0
57	B4	1	0	0	0	0
57	B5	1	0	0	0	0
57	B6	1	0	0	0	0
57	B9	1	0	0	0	0
57	BY	1	0	0	0	0
57	CD	1	0	0	0	0
57	CN	1	0	0	0	0
57	D4	1	0	0	0	0
57	D5	1	0	0	0	0
57	D6	1	0	0	0	0
57	D9	1	0	0	0	0
57	DY	1	0	0	0	0
58	AA	372	0	0	22	0
58	AD	2	0	0	0	0
58	AE	3	0	0	0	0
58	AI	1	0	0	1	0
58	AK	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	AL	2	0	0	0	0
58	AN	1	0	0	0	0
58	AT	5	0	0	1	0
58	AV	16	0	0	1	0
58	AX	1	0	0	0	0
58	AY	2	0	0	1	0
58	B0	4	0	0	0	0
58	B1	1	0	0	0	0
58	B3	1	0	0	0	0
58	B6	4	0	0	0	0
58	B7	2	0	0	0	0
58	B8	4	0	0	1	0
58	B9	1	0	0	0	0
58	BA	1491	0	0	71	0
58	BB	46	0	0	1	0
58	BD	10	0	0	0	0
58	BE	5	0	0	0	0
58	BF	5	0	0	0	0
58	BG	5	0	0	1	0
58	BH	1	0	0	0	0
58	BN	3	0	0	0	0
58	BO	3	0	0	0	0
58	BP	9	0	0	2	0
58	BQ	4	0	0	0	0
58	BR	7	0	0	0	0
58	BT	1	0	0	0	0
58	BU	7	0	0	1	0
58	BV	1	0	0	0	0
58	BW	2	0	0	0	0
58	BX	2	0	0	0	0
58	BY	1	0	0	0	0
58	CA	330	0	0	17	0
58	CB	1	0	0	1	0
58	CC	1	0	0	0	0
58	CD	3	0	0	0	0
58	CE	1	0	0	0	0
58	CK	2	0	0	0	0
58	CL	3	0	0	1	0
58	CN	2	0	0	0	0
58	CO	2	0	0	1	0
58	CQ	2	0	0	1	0
58	CT	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	CV	13	0	0	0	0
58	CX	1	0	0	0	0
58	D1	3	0	0	1	0
58	D3	1	0	0	0	0
58	D6	2	0	0	0	0
58	D7	2	0	0	0	0
58	D8	4	0	0	1	0
58	DA	1028	0	0	63	0
58	DB	40	0	0	2	0
58	DD	8	0	0	0	0
58	DE	11	0	0	1	0
58	DF	4	0	0	0	0
58	DG	1	0	0	0	0
58	DN	3	0	0	0	0
58	DO	5	0	0	1	0
58	DP	4	0	0	0	0
58	DR	5	0	0	1	0
58	DT	3	0	0	0	0
58	DV	1	0	0	0	0
58	DW	1	0	0	0	0
58	DY	2	0	0	0	0
All	All	284877	0	186478	7600	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 17.

All (7600) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:D9:11:CYS:SG	55:D9:32:HIS:HE1	1.40	1.43
25:DA:885:C:N4	25:DA:890:A:N6	1.81	1.27
25:BA:885:C:N4	25:BA:890:A:N6	1.88	1.22
1:CA:1358:U:H3	1:CA:1363(A):A:N6	1.35	1.22
1:AA:1358:U:H3	1:AA:1363(A):A:N6	1.41	1.16
26:BB:119:G:H2'	26:BB:120:A:H5'	1.20	1.11
26:BB:119:G:C2'	26:BB:120:A:H5'	1.81	1.10
25:DA:1798:U:H5'	27:DD:259:THR:HG22	1.36	1.03
25:DA:31:C:OP1	58:DA:3861:HOH:O	1.75	1.03
18:AR:55:ARG:HG3	18:AR:55:ARG:HH11	1.24	1.02
1:CA:1162:C:N4	1:CA:1174:G:H1	1.58	1.01
25:BA:1654:A:OP1	37:BR:1:MET:N	1.93	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1358:U:O4	1:CA:1363(A):A:N1	1.94	0.99
25:DA:571:A:H5'	25:DA:2030:A:H62	1.27	0.99
25:BA:1376:C:OP2	58:BA:5003:HOH:O	1.79	0.99
25:BA:139(A):G:N2	43:BX:44:GLU:OE1	1.97	0.98
1:AA:1358:U:O4	1:AA:1363(A):A:N1	1.97	0.97
25:BA:571:A:H5'	25:BA:2030:A:H62	1.26	0.97
25:BA:676:A:H8	25:BA:2069:G:H21	1.13	0.97
33:BN:56:ASN:H	33:BN:125:GLY:HA3	1.29	0.96
4:AD:22:LYS:HB2	4:AD:26:CYS:HB2	1.48	0.96
25:DA:631:A:OP1	35:DP:65:ARG:NH1	1.98	0.95
25:BA:885:C:H42	25:BA:890:A:N6	1.52	0.95
26:DB:52:A:HO2'	26:DB:53:A:H2	1.09	0.95
25:DA:885:C:H42	25:DA:890:A:N6	1.56	0.95
1:CA:1502:A:H2	1:CA:1505:G:H1	1.16	0.94
22:AY:68:GLY:HA2	22:AY:69:VAL:HB	1.50	0.94
4:AD:110:PHE:HD1	4:AD:110:PHE:H	1.05	0.94
25:DA:1689:A:H62	25:DA:1698:A:H2	1.14	0.94
1:CA:377:G:H1	1:CA:386:C:H42	1.12	0.94
32:BI:77:LEU:HB3	32:BI:142:VAL:HG12	1.50	0.93
47:D1:50:ARG:HG2	47:D1:59:THR:HB	1.51	0.93
25:BA:1403:C:H5''	25:BA:1471:A:H1'	1.51	0.92
25:BA:586:A:OP2	58:BA:5378:HOH:O	1.88	0.92
27:BD:69:ARG:NH2	27:BD:128:GLY:O	2.02	0.92
1:CA:1352:C:OP1	21:CU:3:LYS:NZ	2.03	0.91
1:AA:56:U:H2'	1:AA:57:G:H8	1.36	0.91
40:BU:28:ARG:NH1	40:BU:38:THR:OG1	2.04	0.90
25:DA:271(I):G:H1	25:DA:271(O):C:H42	1.13	0.90
1:CA:1277:C:HO2'	1:CA:1279:A:H8	0.96	0.90
11:AK:79:SER:HA	11:AK:104:GLN:HB2	1.50	0.90
25:BA:141:A:H8	25:BA:1408:C:HO2'	0.91	0.90
25:DA:885:C:N4	25:DA:890:A:H61	1.68	0.90
1:AA:929:G:H1	1:AA:1388:C:H42	1.16	0.90
36:BQ:21:THR:HG21	36:BQ:101:ARG:HB2	1.53	0.90
52:D6:16:CYS:HB3	52:D6:43:CYS:SG	2.12	0.89
25:BA:2507:C:OP1	58:BA:3915:HOH:O	1.88	0.89
1:AA:934:C:OP1	58:AA:2023:HOH:O	1.90	0.89
2:AB:185:ILE:HG22	2:AB:199:TYR:HB2	1.51	0.89
25:DA:1038:C:H42	25:DA:1117:G:H1	1.14	0.89
47:B1:3:LYS:HB2	47:B1:61:ARG:HH12	1.37	0.89
25:DA:2407:G:OP1	58:DA:4097:HOH:O	1.90	0.89
46:B0:11:ARG:O	46:B0:14:ARG:NH2	2.06	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:112:LYS:HA	9:AI:119:ALA:HB2	1.55	0.88
54:B8:6:THR:HG22	54:B8:63:PRO:HD2	1.52	0.88
36:DQ:16:ARG:HH11	36:DQ:16:ARG:HG2	1.38	0.88
2:AB:69:LEU:HB3	2:AB:162:ILE:HG22	1.56	0.88
1:AA:1255:G:O2'	1:AA:1258:G:O2'	1.92	0.88
42:DW:19:LEU:HB3	51:D5:25:LEU:HD12	1.53	0.87
55:B9:11:CYS:HB3	55:B9:32:HIS:HE1	1.38	0.87
1:AA:1019:C:O2'	1:AA:1020:U:OP1	1.92	0.86
43:BX:27:THR:HG22	43:BX:80:ILE:HG12	1.55	0.86
46:B0:38:VAL:HG23	46:B0:59:LEU:HB2	1.55	0.86
1:CA:1158:C:N3	1:CA:1181:G:N2	2.24	0.86
50:D4:16:CYS:SG	50:D4:36:CYS:HB3	2.16	0.86
1:AA:1158:C:H5	1:AA:1181:G:H1	1.21	0.86
27:DD:206:LEU:HD22	27:DD:211:ARG:HG2	1.56	0.86
32:DI:71:ILE:HG23	32:DI:72:LEU:HD23	1.58	0.86
1:CA:1321:C:H5'	1:CA:1322:C:H5''	1.58	0.85
1:AA:1346:A:H5''	9:AI:120:ARG:HH12	1.39	0.85
1:AA:664:G:H22	1:AA:741:G:H1	1.22	0.85
1:CA:953:G:H5'	1:CA:965:A:H61	1.39	0.85
25:BA:910:A:H62	36:BQ:12:GLN:HA	1.39	0.85
5:AE:100:VAL:HG22	5:AE:118:ILE:HG22	1.57	0.85
1:AA:542:G:OP1	4:AD:10:ARG:NH2	2.09	0.85
18:CR:53:ARG:HG3	18:CR:63:GLN:HE21	1.42	0.85
25:DA:1365:A:O2'	47:D1:11:ARG:NH2	2.08	0.85
25:DA:249:C:OP1	58:DA:4012:HOH:O	1.94	0.85
25:DA:2206:G:H5'	25:DA:2207:G:N7	1.92	0.85
1:AA:166:G:H2'	1:AA:167:G:H8	1.41	0.85
25:BA:2106:G:H1	25:BA:2183:C:H42	1.20	0.85
1:CA:922:G:H4'	5:CE:20:GLN:HA	1.59	0.85
25:DA:635:C:O2'	25:DA:639:U:OP1	1.95	0.84
38:DS:102:ALA:HA	38:DS:105:ALA:H	1.42	0.84
25:DA:2777:G:H5''	25:DA:2778:A:H5'	1.59	0.84
25:BA:1832:C:OP2	58:BA:3908:HOH:O	1.95	0.84
25:BA:2319:G:H1'	25:BA:2320:A:H5''	1.58	0.84
38:DS:34:HIS:HD1	38:DS:53:SER:HG	1.25	0.84
5:CE:31:LEU:HD22	5:CE:43:LEU:HD11	1.59	0.84
49:B3:8:LEU:HD13	49:B3:31:LEU:HD23	1.59	0.84
7:AG:146:GLU:O	7:AG:149:ARG:N	2.11	0.84
1:AA:1321:C:H3'	1:AA:1322:C:H5''	1.59	0.83
1:CA:1162:C:H42	1:CA:1174:G:H1	0.84	0.83
9:CI:28:VAL:HG22	9:CI:63:ILE:HB	1.61	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BZ:160:GLY:HA2	45:BZ:161:VAL:HG12	1.57	0.83
22:AY:36:ALA:HA	22:AY:80:GLN:HB2	1.61	0.83
25:DA:2206:G:H3'	25:DA:2207:G:C8	2.13	0.83
2:AB:116:GLU:HA	2:AB:119:GLU:HB2	1.59	0.83
35:DP:39:LYS:HB2	35:DP:45:LEU:HD12	1.60	0.83
25:DA:2287:A:H62	25:DA:2344:U:H3	1.27	0.83
3:CC:24:ALA:HB3	3:CC:29:TYR:HB2	1.59	0.83
33:DN:24:GLY:HA2	33:DN:27:ALA:HB3	1.61	0.83
8:AH:91:ARG:HD3	17:AQ:33:GLY:HA3	1.60	0.83
1:CA:673:G:H2'	1:CA:674:G:C8	2.13	0.83
25:DA:864:G:N7	36:DQ:22:LYS:NZ	2.26	0.83
10:AJ:35:SER:HB3	10:AJ:73:ASP:HB2	1.58	0.83
25:BA:958:U:H5''	36:BQ:14:ARG:HD3	1.61	0.83
25:DA:1740:G:H2'	25:DA:1741:A:H8	1.43	0.83
25:DA:1210:A:H5'	25:DA:1210:A:H8	1.43	0.83
22:AY:32:LYS:HA	25:BA:2573:C:N4	1.94	0.83
2:AB:88:ALA:HB2	2:AB:219:VAL:HG13	1.58	0.82
1:CA:976:G:N2	1:CA:1363:C:OP2	2.12	0.82
25:BA:2287:A:H2	25:BA:2346:A:H62	1.28	0.82
30:DG:161:THR:HG22	30:DG:163:ALA:H	1.43	0.82
12:AL:53:ARG:HG2	12:AL:69:TYR:HE1	1.42	0.82
7:AG:51:GLN:HG3	7:AG:58:PRO:HD3	1.60	0.82
25:BA:2562:U:H1'	34:BO:23:ARG:HH11	1.42	0.82
7:CG:23:VAL:HG13	7:CG:43:PHE:HE2	1.42	0.82
25:DA:1530:C:O2'	25:DA:1531:C:O5'	1.97	0.82
2:AB:69:LEU:HD13	2:AB:91:PRO:HB2	1.62	0.82
5:CE:36:ASP:HB3	5:CE:38:GLN:H	1.45	0.82
25:BA:885:C:N4	25:BA:890:A:H61	1.78	0.81
1:AA:1128:C:H5''	9:AI:16:ARG:HH12	1.45	0.81
5:CE:36:ASP:CB	5:CE:38:GLN:H	1.92	0.81
39:DT:54:ARG:HA	39:DT:59:THR:HB	1.62	0.81
16:CP:43:LYS:HA	16:CP:48:TRP:HB3	1.60	0.81
16:AP:39:TYR:CZ	16:AP:41:PRO:HB3	2.14	0.81
25:DA:1889:A:H2'	25:DA:1890:A:C8	2.15	0.81
25:DA:154(A):C:H42	25:DA:171:G:H1	1.28	0.81
38:BS:96:GLY:HA2	38:BS:100:ALA:H	1.44	0.81
1:AA:96:U:H1'	1:AA:97:G:H5'	1.63	0.81
8:CH:10:LEU:HD22	8:CH:83:ILE:HD11	1.63	0.81
25:DA:1265:A:OP2	58:DA:3919:HOH:O	1.97	0.81
25:DA:1412:A:H2'	25:DA:1413:G:H8	1.46	0.81
25:BA:83:G:N2	25:BA:103:A:OP2	2.10	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DI:38:LEU:HB3	32:DI:40:THR:HG23	1.62	0.81
47:B1:21:ARG:HD3	47:B1:35:THR:HG21	1.62	0.80
25:DA:826:U:H4'	35:DP:55:ARG:HB2	1.63	0.80
30:DG:36:LYS:HD3	30:DG:95:ARG:HH12	1.45	0.80
31:BH:164:TYR:N	31:BH:167:GLU:OE1	2.14	0.80
25:BA:1039:G:O6	25:BA:1116:C:N4	2.14	0.80
11:AK:34:ASP:HB3	11:AK:40:ILE:HD11	1.63	0.80
11:AK:86:GLY:N	11:AK:112:THR:OG1	2.14	0.80
42:BW:86:LEU:HD12	42:BW:87:PRO:HD2	1.64	0.80
14:AN:21:TYR:HE2	14:AN:23:ARG:HE	1.27	0.80
10:CJ:44:VAL:HG22	10:CJ:66:ARG:HG2	1.63	0.80
2:CB:68:ILE:HG22	2:CB:90:MET:HG2	1.63	0.80
16:AP:52:ASP:HB3	16:AP:55:ARG:HB2	1.63	0.80
17:AQ:43:LEU:HB3	17:AQ:69:LYS:HE2	1.61	0.80
25:DA:11:G:H2'	25:DA:12:U:H5'	1.64	0.80
25:DA:2206:G:H3'	25:DA:2207:G:H8	1.45	0.80
25:BA:517:C:OP1	51:B5:16:ARG:NH2	2.15	0.80
25:DA:2276:G:H5'	36:DQ:86:GLY:HA2	1.62	0.80
35:DP:138:LEU:HD23	35:DP:145:PRO:HG3	1.62	0.80
34:DO:20:MET:HB2	34:DO:44:LYS:HG2	1.64	0.80
25:BA:2285:C:OP2	52:B6:6:ARG:NH1	2.15	0.80
25:BA:2317:C:H2'	25:BA:2318:G:H5'	1.64	0.80
50:B4:18:CYS:HB2	50:B4:20:ASN:HB2	1.64	0.80
25:DA:851:U:H5'	49:D3:49:LYS:HD2	1.64	0.80
42:BW:12:ILE:HD13	42:BW:17:VAL:HG22	1.64	0.80
1:AA:862:C:O2	1:AA:867:G:N2	2.14	0.79
1:AA:1392:G:H21	1:AA:1502:A:H8	1.29	0.79
25:DA:2308:G:O6	25:DA:2311:A:N6	2.14	0.79
8:CH:12:ARG:NH2	8:CH:27:PRO:HD3	1.97	0.79
20:AT:10:LEU:HD23	20:AT:12:ALA:H	1.45	0.79
1:AA:974:A:OP2	14:AN:29:ARG:NH2	2.13	0.79
1:AA:737:A:H2'	1:AA:738:C:H6	1.46	0.79
22:AY:47:SER:OG	22:AY:48:LEU:N	2.15	0.79
25:DA:1762:A:N1	58:DA:3968:HOH:O	2.14	0.79
41:DV:76:LYS:HB2	41:DV:81:TYR:HB3	1.63	0.79
1:AA:64:G:H4'	1:AA:65:U:H3'	1.63	0.79
38:DS:34:HIS:ND1	38:DS:53:SER:OG	2.10	0.79
25:DA:299:A:H5''	44:DY:86:ARG:HH21	1.45	0.79
20:CT:47:GLY:HA2	20:CT:48:LYS:HB2	1.63	0.79
1:AA:453:A:H62	1:AA:479:C:H42	1.27	0.79
27:DD:274:ARG:HG2	27:DD:275:LYS:HB3	1.62	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1502:A:H2	1:AA:1505:G:H1	1.27	0.79
9:AI:21:PRO:HA	9:AI:59:PHE:HA	1.64	0.79
16:CP:22:THR:HA	16:CP:33:ILE:HG12	1.64	0.79
25:DA:819:A:OP2	25:DA:1187:G:N2	2.15	0.79
33:BN:20:GLY:HA2	33:BN:61:ARG:HD3	1.64	0.79
1:CA:562:C:H1'	12:CL:15:ARG:HB3	1.65	0.78
25:BA:1041:C:H42	25:BA:1114:G:H1	1.29	0.78
19:AS:41:VAL:N	19:AS:44:MET:SD	2.53	0.78
25:BA:847:U:O4	25:BA:933:A:N6	2.17	0.78
13:AM:85:GLY:HA3	13:AM:86:CYS:HB3	1.65	0.78
25:BA:1689:A:H62	25:BA:1698:A:H2	1.30	0.78
1:AA:1281:U:H5'	1:AA:1282:C:OP2	1.82	0.78
25:DA:1365:A:OP1	47:D1:41:ARG:NH1	2.17	0.78
30:DG:63:ILE:HG22	30:DG:64:THR:HG23	1.64	0.78
4:CD:189:PRO:HB3	4:CD:194:LEU:HD21	1.64	0.78
25:BA:615:G:OP1	29:BF:40:GLN:NE2	2.17	0.78
1:AA:35:G:O2'	12:AL:118:SER:O	2.01	0.78
28:BE:126:PRO:HG2	28:BE:131:ALA:HB2	1.64	0.78
10:CJ:35:SER:HB3	10:CJ:73:ASP:HB2	1.65	0.78
5:CE:51:VAL:HG23	5:CE:52:PRO:HD3	1.64	0.78
9:AI:13:ALA:HB2	9:AI:68:GLY:HA3	1.66	0.78
25:DA:910:A:H62	36:DQ:12:GLN:HA	1.49	0.78
6:CF:8:ILE:HD13	6:CF:26:ILE:HD13	1.64	0.78
25:DA:781:A:OP1	27:DD:218:ARG:NH2	2.17	0.78
42:BW:73:ALA:HB3	42:BW:106:ILE:HB	1.63	0.78
16:CP:72:ARG:HH11	16:CP:72:ARG:HG3	1.45	0.78
1:CA:1147:C:O2	9:CI:16:ARG:NH1	2.17	0.78
2:AB:163:PHE:HD2	2:AB:185:ILE:HG13	1.48	0.78
47:B1:3:LYS:HB2	47:B1:61:ARG:NH1	1.98	0.78
1:AA:954:G:H21	1:AA:1227:A:H62	1.32	0.78
25:DA:784:A:OP2	58:DA:3805:HOH:O	2.03	0.77
25:BA:1435:G:H1	25:BA:1557:C:H42	1.29	0.77
13:CM:64:TRP:HE3	13:CM:64:TRP:H	1.29	0.77
25:DA:1250:G:N7	35:DP:18:ARG:NH2	2.32	0.77
25:BA:652(H):C:H42	25:BA:652(Q):G:H1	1.32	0.77
10:CJ:50:ILE:HB	14:CN:41:ARG:HD2	1.66	0.77
25:BA:2287:A:N6	25:BA:2344:U:H3	1.82	0.77
38:DS:14:VAL:O	38:DS:18:ILE:HG12	1.85	0.77
25:BA:151:C:H42	25:BA:175:G:H1	1.30	0.77
25:DA:639:U:H2'	25:DA:640:C:C6	2.19	0.77
28:BE:105:THR:OG1	28:BE:199:ARG:NH2	2.18	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BW:14:PRO:HG2	42:BW:78:GLU:HG2	1.65	0.77
15:AO:62:GLN:HA	15:AO:65:ARG:HH11	1.50	0.77
25:DA:317:G:N7	58:DA:4605:HOH:O	2.16	0.77
1:AA:1239:A:H62	1:AA:1299:A:H62	1.30	0.77
25:BA:2615:U:OP1	58:BA:4761:HOH:O	2.01	0.77
16:AP:28:ARG:NH1	16:AP:29:ASP:OD2	2.18	0.77
18:CR:56:THR:HB	18:CR:58:LEU:HD13	1.67	0.77
25:DA:271(I):G:H1	25:DA:271(O):C:N4	1.81	0.77
25:BA:1971:A:C4	27:BD:241:PRO:HD3	2.19	0.77
13:AM:23:TYR:HB3	13:AM:67:GLU:HG2	1.64	0.77
26:DB:13:A:N1	26:DB:69:G:O2'	2.16	0.77
31:DH:3:ARG:HD3	31:DH:54:ARG:HH12	1.49	0.77
1:CA:1358:U:N3	1:CA:1363(A):A:N6	2.10	0.77
25:DA:2839:G:H5'	37:DR:46:GLY:HA2	1.65	0.77
25:DA:1558:A:H4'	25:DA:1559:G:O5'	1.85	0.77
25:DA:2100:G:H1	25:DA:2189:U:H3	1.33	0.76
25:DA:48:G:O6	58:DA:4628:HOH:O	2.03	0.76
25:DA:2683:C:OP1	39:DT:53:ARG:NH2	2.17	0.76
25:BA:751:A:H5'	42:BW:90:ARG:HA	1.66	0.76
2:CB:161:ALA:HB1	2:CB:185:ILE:HD11	1.67	0.76
44:BY:79:CYS:SG	44:BY:102:CYS:HB3	2.24	0.76
8:CH:21:LYS:O	8:CH:65:TYR:OH	2.00	0.76
25:DA:1453:U:OP1	37:DR:77:ARG:NH1	2.19	0.76
25:BA:1332:G:C8	25:BA:1332:G:H5'	2.20	0.76
50:B4:18:CYS:SG	50:B4:39:CYS:HB3	2.24	0.76
25:DA:2577:A:OP2	51:D5:3:LYS:NZ	2.16	0.76
25:BA:1047:G:H2'	25:BA:1110:G:H22	1.49	0.76
25:DA:309:G:N3	25:DA:329:G:O2'	2.18	0.76
4:AD:157:LEU:O	4:AD:161:ASN:ND2	2.17	0.76
38:BS:42:ASP:OD1	38:BS:42:ASP:N	2.19	0.76
1:CA:404:U:H2'	1:CA:405:U:H6	1.50	0.76
1:CA:1347:G:C8	9:CI:107:ARG:HB3	2.20	0.76
25:DA:2293:C:O2	25:DA:2339:G:N2	2.17	0.76
55:D9:25:VAL:HB	55:D9:34:GLN:HB2	1.67	0.76
35:BP:56:SER:HB2	35:BP:61:ARG:HD2	1.68	0.76
42:DW:50:VAL:HG12	42:DW:105:VAL:HG22	1.68	0.76
1:CA:586:C:H2'	1:CA:587:G:H5'	1.68	0.76
1:AA:1422:G:H5'	34:BO:48:PRO:HB3	1.68	0.76
25:DA:2296:U:OP2	38:DS:9:ARG:NH2	2.18	0.76
1:AA:1315:U:O2'	1:AA:1360:A:N3	2.17	0.76
40:BU:92:ARG:HA	40:BU:95:LEU:HB2	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1131:G:H1	1:AA:1143:G:H21	1.34	0.76
25:BA:2317:C:C2'	25:BA:2318:G:H5'	2.15	0.76
1:CA:826:C:O2	1:CA:874:G:N2	2.18	0.76
34:DO:35:VAL:HG11	34:DO:103:ALA:HB3	1.67	0.76
25:DA:2006:C:OP2	58:DA:3840:HOH:O	2.02	0.76
23:CV:3:C:H42	23:CV:70:G:H1	1.34	0.75
55:D9:29:ASN:HD22	55:D9:32:HIS:CD2	2.03	0.75
25:DA:2287:A:N6	25:DA:2344:U:H3	1.82	0.75
1:AA:1144:G:N2	1:AA:1146:A:H62	1.85	0.75
27:BD:183:ARG:HG3	27:BD:270:ILE:HD13	1.68	0.75
10:CJ:48:THR:HA	10:CJ:62:HIS:HB3	1.67	0.75
25:DA:1645:G:H5''	25:DA:1646:C:H5'	1.69	0.75
25:DA:676:A:H8	25:DA:2069:G:H21	1.33	0.75
25:BA:1434:A:H61	25:BA:1558:A:N6	1.84	0.75
25:DA:958:U:OP2	36:DQ:14:ARG:NH1	2.17	0.75
1:AA:382:A:H2'	1:AA:383:A:H8	1.51	0.75
45:DZ:52:SER:OG	45:DZ:53:ILE:N	2.15	0.75
41:DV:40:LEU:HB2	41:DV:46:VAL:HG13	1.66	0.75
20:CT:49:ALA:HA	20:CT:52:ALA:HB3	1.69	0.75
25:BA:252:G:OP2	35:BP:50:ARG:NH1	2.20	0.75
25:BA:9:U:H3	25:BA:2629:A:H2	1.33	0.75
25:BA:2685:G:O6	58:BA:4699:HOH:O	2.03	0.75
45:DZ:110:GLY:HA3	45:DZ:174:VAL:HG11	1.68	0.75
1:CA:559:A:H4'	1:CA:560:U:H5''	1.67	0.75
25:DA:1557:C:OP2	25:DA:1558:A:O2'	2.03	0.75
3:CC:179:ARG:HD2	3:CC:206:GLU:HB3	1.69	0.75
25:BA:529:A:N6	25:BA:2041:U:O2	2.19	0.75
1:AA:737:A:H2'	1:AA:738:C:C6	2.22	0.75
25:BA:2445:G:OP1	29:BF:74:ARG:NH2	2.20	0.75
3:AC:19:GLU:O	3:AC:40:ARG:NH2	2.19	0.75
25:BA:330:A:H2	25:BA:1210:A:H2'	1.52	0.75
35:BP:32:THR:O	58:BP:307:HOH:O	2.04	0.75
32:DI:83:ALA:HB1	32:DI:87:LYS:O	1.87	0.75
25:DA:1567:A:H5'	27:DD:58:HIS:CD2	2.21	0.75
1:AA:1279:A:O2'	1:AA:1281:U:OP2	2.03	0.75
2:AB:201:ILE:HG21	2:AB:214:ILE:HG21	1.69	0.75
1:AA:269:C:H2'	1:AA:270:A:C8	2.22	0.75
5:CE:102:ALA:HB1	5:CE:106:PRO:HG2	1.69	0.74
2:AB:44:LEU:H	2:AB:44:LEU:HD22	1.51	0.74
25:BA:2106:G:H1	25:BA:2183:C:N4	1.85	0.74
1:AA:1305:G:N2	1:AA:1331:G:H1'	2.02	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2327:A:H2'	25:BA:2328:A:C8	2.21	0.74
25:BA:1300:U:H4'	25:BA:1301:A:H5''	1.69	0.74
1:CA:1162:C:N3	1:CA:1174:G:N2	2.32	0.74
25:BA:2573:C:O2	58:BA:3912:HOH:O	2.06	0.74
1:AA:269:C:H2'	1:AA:270:A:H8	1.52	0.74
28:BE:61:ARG:HH11	28:BE:61:ARG:HB2	1.52	0.74
25:DA:1740:G:H2'	25:DA:1741:A:C8	2.22	0.74
25:BA:1210:A:H8	25:BA:1210:A:H5'	1.53	0.74
10:AJ:9:ARG:HB2	10:AJ:95:GLU:HB3	1.67	0.74
8:AH:28:ALA:HB2	8:AH:59:LEU:HG	1.68	0.74
1:AA:56:U:H2'	1:AA:57:G:C8	2.23	0.74
25:DA:300:A:P	44:DY:86:ARG:HH22	2.09	0.74
26:DB:48:A:H4'	38:DS:95:HIS:HD2	1.51	0.74
36:BQ:62:GLY:HA2	45:BZ:116:VAL:HG21	1.70	0.74
1:CA:564:C:O2'	8:CH:91:ARG:NH2	2.19	0.74
25:DA:120:U:OP2	58:DA:4239:HOH:O	2.04	0.74
47:D1:21:ARG:HD3	47:D1:35:THR:HG21	1.69	0.74
1:AA:567:G:N3	58:AA:2260:HOH:O	2.20	0.74
2:CB:21:ARG:HB3	2:CB:39:ILE:HA	1.70	0.74
1:AA:434:U:H2'	1:AA:435:C:C6	2.22	0.74
16:CP:28:ARG:HH11	16:CP:28:ARG:HG2	1.50	0.74
25:DA:1316:U:H2'	25:DA:1317:A:H8	1.53	0.74
1:CA:130:A:H5'	17:CQ:63:ARG:HE	1.52	0.74
25:DA:500:G:N1	25:DA:503:A:OP2	2.20	0.74
9:CI:107:ARG:HG2	9:CI:107:ARG:HH11	1.53	0.74
1:AA:836:G:OP1	18:AR:61:LYS:NZ	2.19	0.74
1:AA:342:C:H2'	1:AA:343:U:H5'	1.70	0.74
16:AP:43:LYS:HG2	16:AP:48:TRP:CE2	2.23	0.73
25:DA:134:C:H42	25:DA:145:G:H1	1.36	0.73
32:BI:92:VAL:HG13	32:BI:120:ILE:HB	1.68	0.73
31:DH:106:THR:HG22	31:DH:112:PRO:HB3	1.69	0.73
2:AB:163:PHE:CD2	2:AB:185:ILE:HG13	2.23	0.73
10:CJ:39:PRO:HA	10:CJ:70:ARG:HD3	1.70	0.73
27:DD:182:LEU:HB3	27:DD:271:ILE:HD12	1.70	0.73
1:AA:316:G:OP2	1:AA:351:G:O2'	2.05	0.73
1:AA:1346:A:H5''	9:AI:120:ARG:NH1	2.02	0.73
29:DF:185:ASP:HA	29:DF:188:ARG:HD3	1.69	0.73
1:AA:832:C:HO2'	1:AA:833:U:H6	1.34	0.73
27:DD:177:LEU:HD12	27:DD:181:GLU:HB3	1.69	0.73
25:BA:2817:G:OP1	37:BR:42:LYS:NZ	2.21	0.73
19:AS:31:ILE:HG12	19:AS:49:ILE:HG12	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:27:GLN:HA	6:AF:30:LEU:HD12	1.69	0.73
46:B0:55:ARG:HB2	46:B0:55:ARG:HH11	1.52	0.73
29:BF:32:LEU:HB3	29:BF:112:MET:HE1	1.70	0.73
25:DA:2712:U:O2'	25:DA:2712(A):A:OP2	2.06	0.73
25:BA:2712:U:O2'	25:BA:2712(A):A:OP2	2.04	0.73
35:DP:111:ARG:HG2	35:DP:128:HIS:CG	2.23	0.73
25:DA:468:G:N7	53:D7:39:ARG:NH2	2.34	0.73
25:DA:1639:U:H2'	25:DA:1640:C:H5''	1.71	0.73
25:BA:1204:A:H2	25:BA:1241:A:H62	1.36	0.73
25:DA:7:G:H2'	25:DA:8:A:C8	2.23	0.73
32:DI:72:LEU:C	32:DI:74:ASN:H	1.90	0.73
1:AA:149:A:OP2	58:AA:2198:HOH:O	2.06	0.73
25:DA:1412:A:H2'	25:DA:1413:G:C8	2.24	0.73
1:CA:1152:A:H5'	10:CJ:13:HIS:CD2	2.24	0.73
25:BA:271(M):G:O2'	25:BA:271(N):U:O5'	2.07	0.73
25:DA:2884:U:H1'	51:D5:53:ALA:HB2	1.70	0.73
25:DA:2567:G:H2'	25:DA:2568:C:C6	2.23	0.73
31:DH:8:PRO:HB3	31:DH:51:ARG:HG3	1.71	0.73
2:CB:84:GLU:HB3	2:CB:219:VAL:HG21	1.71	0.73
29:BF:53:THR:HG22	29:BF:55:GLY:H	1.53	0.73
34:BO:2:ILE:HB	34:BO:33:ALA:HB3	1.70	0.73
25:BA:271(E):U:H3	25:BA:271(S):G:H1	1.35	0.73
25:BA:686:G:OP1	53:B7:11:LYS:NZ	2.18	0.73
32:DI:72:LEU:HA	32:DI:75:LEU:HD12	1.69	0.73
1:CA:316:G:OP2	1:CA:351:G:O2'	2.05	0.73
31:DH:80:SER:OG	31:DH:81:GLU:N	2.21	0.73
30:DG:47:LYS:HB3	30:DG:82:LEU:HD13	1.71	0.73
25:DA:587:C:OP2	35:DP:21:ARG:NH2	2.21	0.73
25:BA:1177:A:O2'	25:BA:1178:C:O4'	2.06	0.73
41:BV:29:PRO:HA	41:BV:61:VAL:HG22	1.70	0.73
8:AH:21:LYS:O	8:AH:65:TYR:OH	2.04	0.73
25:BA:784:A:H5'	25:BA:785:G:OP1	1.88	0.72
1:AA:1197:G:OP1	58:AA:2360:HOH:O	2.06	0.72
17:CQ:57:VAL:HG12	17:CQ:76:LEU:HA	1.70	0.72
37:DR:51:LEU:HD22	37:DR:66:VAL:HG13	1.69	0.72
33:BN:67:LEU:HA	33:BN:87:LEU:HD12	1.71	0.72
9:CI:9:ARG:HG2	9:CI:14:VAL:HG12	1.69	0.72
25:DA:1403:C:H5''	25:DA:1471:A:H1'	1.71	0.72
25:DA:2781:A:H5''	25:DA:2782:G:H5'	1.70	0.72
36:DQ:36:ALA:HB1	36:DQ:127:ILE:HD11	1.71	0.72
25:BA:587:C:OP2	35:BP:21:ARG:NH2	2.21	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:128:SER:OG	28:DE:129:HIS:N	2.20	0.72
4:AD:134:ASP:OD2	4:AD:134:ASP:N	2.21	0.72
11:AK:120:ARG:HH11	11:AK:120:ARG:HG2	1.54	0.72
33:BN:24:GLY:HA2	33:BN:27:ALA:CB	2.20	0.72
47:D1:23:LYS:HB3	47:D1:29:GLY:HA3	1.70	0.72
22:AY:68:GLY:HA2	22:AY:69:VAL:CB	2.18	0.72
1:AA:450:G:OP1	16:AP:43:LYS:NZ	2.23	0.72
33:DN:58:ASP:OD1	33:DN:58:ASP:N	2.14	0.72
10:AJ:37:PRO:HA	10:AJ:72:VAL:HG12	1.72	0.72
25:DA:885:C:C4	25:DA:890:A:N6	2.54	0.72
2:CB:95:GLN:HG3	2:CB:148:TYR:HA	1.72	0.72
44:DY:49:VAL:HG22	44:DY:61:ILE:HG22	1.70	0.72
25:BA:1037:G:N7	58:BA:4044:HOH:O	2.21	0.72
25:DA:863:A:H3'	36:DQ:22:LYS:HE2	1.71	0.72
17:AQ:44:ALA:N	17:AQ:69:LYS:HZ3	1.88	0.72
25:DA:139(A):G:N2	43:DX:44:GLU:OE1	2.22	0.72
25:BA:2357:U:OP1	46:B0:20:ARG:NH1	2.22	0.72
25:BA:2789:C:HO2'	25:BA:2790:A:HO2'	1.28	0.72
45:BZ:110:GLY:HA3	45:BZ:174:VAL:HG11	1.72	0.72
32:BI:79:ILE:HD12	32:BI:144:VAL:HB	1.72	0.72
1:CA:1059:C:N4	58:CA:2121:HOH:O	2.09	0.72
2:CB:71:VAL:HB	2:CB:164:VAL:HG13	1.72	0.72
25:DA:33:U:O4	25:DA:446:G:O2'	2.08	0.72
25:DA:2692:C:HO2'	25:DA:2847:U:HO2'	1.37	0.72
25:BA:2306:C:O2	58:BA:5334:HOH:O	2.08	0.72
25:DA:620:G:N3	25:DA:620:G:H5''	2.05	0.72
49:D3:23:LEU:HD12	49:D3:28:LEU:HB2	1.72	0.71
29:BF:185:ASP:HA	29:BF:188:ARG:HD3	1.72	0.71
1:AA:1457:G:OP1	20:AT:39:LYS:NZ	2.23	0.71
1:AA:1414:U:H3	1:AA:1486:G:H1	1.33	0.71
6:AF:14:LEU:HD22	6:AF:15:ASP:H	1.53	0.71
29:BF:20:LEU:HD22	29:BF:21:ALA:HB3	1.72	0.71
25:DA:1009:A:OP1	33:DN:37:LYS:NZ	2.20	0.71
1:AA:933:G:O6	7:AG:3:ARG:NH2	2.22	0.71
2:AB:71:VAL:HB	2:AB:164:VAL:HG13	1.73	0.71
25:DA:2378:A:H4'	38:DS:23:ARG:NH1	2.05	0.71
2:AB:24:TRP:CZ3	2:AB:26:PRO:HA	2.25	0.71
25:DA:479:A:N3	25:DA:481:G:H5''	2.05	0.71
27:DD:127:VAL:HA	27:DD:193:VAL:HG23	1.71	0.71
1:CA:572:A:OP2	58:CA:1963:HOH:O	2.07	0.71
2:AB:162:ILE:O	2:AB:185:ILE:HG12	1.89	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:677:U:H3	1:CA:713:G:H22	1.36	0.71
10:AJ:11:PHE:HE2	10:AJ:67:THR:HG22	1.54	0.71
1:AA:1060:C:C5	3:AC:2:GLY:HA2	2.25	0.71
26:BB:86:G:H1	26:BB:91:C:H42	1.37	0.71
25:BA:2785:C:O3'	28:BE:69:LYS:NZ	2.23	0.71
16:CP:28:ARG:NH1	16:CP:29:ASP:OD1	2.23	0.71
1:CA:1308:U:H5''	13:CM:98:VAL:HG22	1.71	0.71
3:CC:110:ASN:HB2	3:CC:111:LEU:HD12	1.73	0.71
25:BA:2464:C:H1'	58:BA:5236:HOH:O	1.89	0.71
25:DA:994:C:OP2	40:DU:54:LYS:NZ	2.21	0.71
39:BT:51:ARG:HB2	39:BT:98:LYS:HD2	1.72	0.71
25:DA:2307:G:H4'	25:DA:2308:G:H5'	1.71	0.71
16:AP:28:ARG:HG2	16:AP:28:ARG:HH11	1.54	0.71
6:CF:6:VAL:HG22	6:CF:90:VAL:HG22	1.72	0.71
7:AG:111:ARG:NH1	7:AG:113:GLU:OE1	2.24	0.71
35:DP:39:LYS:HD2	35:DP:45:LEU:HD12	1.72	0.71
20:AT:30:LYS:HA	20:AT:33:ILE:HD12	1.73	0.71
3:AC:36:ASP:HA	3:AC:39:ILE:HB	1.73	0.71
36:DQ:34:LEU:HB2	36:DQ:118:LEU:HD22	1.72	0.71
25:DA:548:A:N6	41:DV:19:LYS:H	1.89	0.71
3:AC:12:LEU:HD11	14:AN:51:GLY:HA2	1.71	0.71
1:CA:568:G:N7	12:CL:5:PRO:HD3	2.06	0.71
25:DA:991:C:H5'	25:DA:991:C:H6	1.56	0.71
2:CB:97:TRP:CH2	2:CB:173:ALA:HA	2.26	0.71
1:CA:129(A):G:O6	1:CA:189(D):C:C2	2.44	0.71
9:CI:103:THR:OG1	9:CI:104:ARG:N	2.22	0.71
25:DA:1266:G:O5'	42:DW:15:ARG:NH2	2.23	0.71
1:CA:1239:A:H2'	1:CA:1298:C:H42	1.55	0.71
23:CV:40:C:H2'	23:CV:41:C:H6	1.56	0.71
25:BA:1332:G:N2	25:BA:1609:A:H2'	2.06	0.70
27:BD:131:LEU:HB2	27:BD:136:ILE:HD11	1.73	0.70
25:BA:1174:A:H4'	25:BA:1175:U:OP1	1.89	0.70
47:D1:54:ALA:HB1	47:D1:83:GLU:HG3	1.73	0.70
25:BA:1019:U:HO2'	25:BA:1021:A:H2	1.39	0.70
1:AA:929:G:H1	1:AA:1388:C:N4	1.87	0.70
2:CB:155:LEU:HD11	2:CB:159:PRO:HD3	1.71	0.70
25:BA:1149:G:N7	58:BA:5231:HOH:O	2.24	0.70
1:AA:1255:G:OP1	10:AJ:45:ARG:NH2	2.24	0.70
33:DN:34:LEU:O	33:DN:49:GLY:HA3	1.91	0.70
38:BS:96:GLY:H	38:BS:99:LYS:H	1.39	0.70
1:CA:826:C:H4'	8:CH:12:ARG:HD2	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:382:A:H2'	1:AA:383:A:C8	2.26	0.70
1:AA:1108:G:O6	58:AA:2345:HOH:O	2.09	0.70
32:BI:129:THR:HG22	32:BI:139:GLN:HE22	1.55	0.70
25:DA:384:U:H2'	25:DA:385:C:H6	1.54	0.70
1:CA:503:C:OP2	12:CL:116:SER:HB3	1.91	0.70
1:AA:186:C:H2'	1:AA:187:C:C6	2.26	0.70
18:AR:55:ARG:HG3	18:AR:55:ARG:NH1	2.01	0.70
25:DA:1721:G:H8	25:DA:1741:A:H62	1.38	0.70
16:CP:29:ASP:OD2	16:CP:29:ASP:N	2.22	0.70
1:AA:652:U:O4	1:AA:752:G:O2'	2.09	0.70
25:DA:849:A:N1	49:D3:25:ALA:HB2	2.05	0.70
25:BA:1398:C:O3'	43:BX:25:LYS:NZ	2.24	0.70
34:DO:23:ARG:HG3	34:DO:24:VAL:N	2.07	0.70
25:DA:1803:A:O2'	27:DD:259:THR:HG21	1.91	0.70
35:DP:120:ALA:HB1	35:DP:138:LEU:HD12	1.71	0.70
1:CA:404:U:H2'	1:CA:405:U:C6	2.26	0.70
25:DA:1149:G:H2'	25:DA:1150:C:C6	2.27	0.70
1:CA:400:C:H5''	4:CD:73:ARG:HH12	1.57	0.70
25:DA:572:A:OP2	41:DV:78:LYS:NZ	2.24	0.70
25:BA:1045:A:OP1	25:BA:1045:A:H4'	1.89	0.70
40:BU:76:TYR:OH	40:BU:92:ARG:NH1	2.24	0.70
52:B6:13:CYS:SG	52:B6:47:THR:HG21	2.31	0.70
36:BQ:110:THR:HG23	36:BQ:113:GLN:HG3	1.74	0.70
1:AA:674:G:H2'	1:AA:675:A:H8	1.56	0.70
3:CC:127:ARG:NH2	3:CC:192:THR:OG1	2.24	0.70
1:CA:97:G:HO2'	1:CA:98:G:H8	1.40	0.70
25:DA:1332:G:N2	25:DA:1609:A:O2'	2.23	0.70
9:AI:117:HIS:O	9:AI:119:ALA:N	2.24	0.70
1:AA:865:A:H2'	1:AA:866:C:C6	2.27	0.70
45:BZ:82:ARG:HB3	45:BZ:82:ARG:NH2	2.06	0.70
1:CA:1244:C:H42	1:CA:1293:G:H1	1.39	0.70
1:AA:1504:G:OP1	1:AA:1507:A:H4'	1.91	0.70
1:AA:54:C:O2	1:AA:357:G:N2	2.22	0.70
25:DA:2528:U:H5'	55:D9:31:LYS:HD3	1.74	0.70
36:BQ:21:THR:HG21	36:BQ:101:ARG:HD2	1.73	0.70
25:DA:298:G:N7	58:DA:3734:HOH:O	2.24	0.70
25:BA:729:G:OP2	27:BD:13:ARG:NH1	2.24	0.70
1:CA:736:C:H2'	1:CA:737:A:C8	2.26	0.70
25:DA:71:A:H5''	25:DA:73:A:C8	2.27	0.70
1:AA:1305:G:H22	1:AA:1331:G:H1'	1.55	0.70
38:BS:101:LEU:HD23	38:BS:102:ALA:H	1.57	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:342:C:C4	1:AA:343:U:H5	2.10	0.69
1:CA:518:C:H2'	1:CA:530:G:C8	2.26	0.69
25:BA:1170:G:H5''	25:BA:1170:G:H8	1.55	0.69
18:AR:56:THR:HB	18:AR:58:LEU:HD22	1.74	0.69
25:DA:19:C:H2'	25:DA:20:C:H6	1.57	0.69
1:CA:1012:U:H3	1:CA:1017:G:H1	1.37	0.69
25:DA:1920:C:OP2	58:DA:3707:HOH:O	2.09	0.69
45:DZ:156:LYS:HD2	45:DZ:158:PRO:HG3	1.73	0.69
36:DQ:43:THR:HG22	36:DQ:94:VAL:HG12	1.74	0.69
1:AA:625:G:H2'	1:AA:626:U:H6	1.57	0.69
30:BG:41:GLN:HB3	30:BG:43:LEU:HD22	1.73	0.69
19:CS:22:LEU:HD22	19:CS:27:GLU:HA	1.75	0.69
25:DA:2055:C:N3	58:DA:3908:HOH:O	2.24	0.69
52:B6:40:CYS:SG	52:B6:42:TRP:HB2	2.32	0.69
1:CA:954:G:H21	1:CA:1227:A:N6	1.89	0.69
25:DA:1021:A:H62	25:DA:1141:U:H3	1.39	0.69
25:DA:272(G):C:H42	25:DA:363(C):G:H1	1.40	0.69
25:BA:2467:C:H4'	36:BQ:123:HIS:ND1	2.07	0.69
25:BA:885:C:C4	25:BA:890:A:N6	2.61	0.69
1:CA:736:C:H2'	1:CA:737:A:H8	1.58	0.69
25:BA:2595:G:N7	58:BA:4706:HOH:O	2.25	0.69
25:DA:287:C:H42	25:DA:354:G:H1	1.39	0.69
25:BA:220:G:O2'	25:BA:233:A:N3	2.25	0.69
13:AM:60:VAL:HG12	13:AM:64:TRP:HZ3	1.55	0.69
6:CF:70:ASP:OD1	6:CF:70:ASP:N	2.26	0.69
1:AA:345:C:OP2	39:BT:39:ARG:NH2	2.25	0.69
9:AI:114:TYR:HE1	10:AJ:60:ARG:H	1.41	0.69
1:CA:243:A:H4'	1:CA:244:U:H5''	1.74	0.69
1:AA:928:G:H1	1:AA:1389:C:H42	1.39	0.69
1:CA:920:U:H2'	1:CA:921:U:C6	2.27	0.69
34:BO:19:ILE:HG22	34:BO:43:VAL:HA	1.74	0.69
1:AA:97:G:HO2'	1:AA:98:G:H8	1.40	0.69
1:AA:1189:C:OP1	10:AJ:51:ARG:NH2	2.14	0.69
25:DA:1776:G:OP2	58:DA:3845:HOH:O	2.10	0.69
25:BA:528:A:N1	25:BA:2042:A:H2'	2.08	0.69
25:BA:674:G:O2'	29:BF:74:ARG:HD3	1.92	0.69
29:DF:185:ASP:OD1	29:DF:188:ARG:NH1	2.25	0.69
7:CG:18:TYR:CE2	7:CG:59:LEU:HB2	2.27	0.69
1:AA:593:G:O6	58:AA:2267:HOH:O	2.09	0.69
4:CD:204:ILE:HG21	5:CE:98:THR:O	1.91	0.69
46:D0:27:GLU:HB2	46:D0:69:PHE:HD1	1.57	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:B1:60:PHE:HE1	47:B1:95:LEU:HD11	1.58	0.69
1:CA:1292:U:H5'	9:CI:38:GLN:HG2	1.75	0.69
1:AA:911:U:OP2	12:AL:97:ARG:NH1	2.25	0.69
25:BA:832:G:H21	35:BP:53:GLY:HA3	1.58	0.69
1:AA:114:U:OP1	58:AA:2185:HOH:O	2.10	0.69
2:CB:27:LYS:HB2	2:CB:194:PRO:HD2	1.75	0.69
28:DE:135:HIS:H	28:DE:135:HIS:CD2	2.09	0.69
25:DA:574:C:OP2	58:DA:3934:HOH:O	2.10	0.69
30:DG:108:ASN:HA	50:D4:37:SER:HB3	1.74	0.69
50:B4:16:CYS:SG	50:B4:18:CYS:N	2.66	0.69
25:DA:71:A:OP2	25:DA:71:A:H3'	1.92	0.69
18:AR:44:LEU:HD21	18:AR:70:ILE:HG21	1.74	0.69
29:BF:63:LYS:NZ	29:BF:75:HIS:O	2.26	0.69
30:DG:96:ARG:O	30:DG:99:MET:HB3	1.93	0.69
34:DO:73:ASP:OD1	39:DT:32:TYR:OH	2.10	0.69
25:BA:1434:A:H61	25:BA:1558:A:H62	1.40	0.68
2:CB:88:ALA:HB2	2:CB:219:VAL:HG13	1.73	0.68
27:DD:51:VAL:HG12	27:DD:54:ARG:HD3	1.75	0.68
30:BG:120:LEU:HD23	30:BG:179:PRO:HG2	1.73	0.68
1:CA:582:U:OP1	15:CO:68:ARG:NH2	2.27	0.68
1:CA:1457:G:OP1	20:CT:39:LYS:NZ	2.26	0.68
30:BG:145:THR:OG1	30:BG:146:TYR:N	2.26	0.68
28:DE:143:ASN:HB2	28:DE:147:PRO:HD2	1.75	0.68
7:AG:26:PHE:HE2	7:AG:30:ILE:HD11	1.58	0.68
7:CG:151:TYR:OH	11:CK:54:ARG:NH1	2.27	0.68
22:AY:28:GLN:O	22:AY:32:LYS:N	2.24	0.68
1:CA:9:G:H2'	1:CA:10:A:C8	2.28	0.68
25:DA:152:G:H1	25:DA:174:C:H42	1.40	0.68
36:BQ:135:ASP:HB3	36:BQ:137:TYR:H	1.57	0.68
3:CC:18:TRP:H	3:CC:18:TRP:HE3	1.39	0.68
1:CA:924:C:O2'	1:CA:1502:A:N6	2.27	0.68
25:BA:2610:C:H4'	25:BA:2611:U:OP2	1.93	0.68
25:BA:2010:G:N7	58:BA:4544:HOH:O	2.27	0.68
44:BY:68:HIS:HB3	44:BY:71:LYS:HG3	1.73	0.68
35:BP:91:PHE:O	35:BP:121:LYS:NZ	2.26	0.68
13:AM:3:ARG:HB2	13:AM:9:ILE:HA	1.74	0.68
2:AB:24:TRP:HD1	2:AB:24:TRP:H	1.37	0.68
34:BO:35:VAL:HG11	34:BO:103:ALA:HB3	1.74	0.68
25:DA:2556:C:H2'	25:DA:2557:G:O4'	1.92	0.68
1:CA:728:A:H2'	1:CA:729:A:C8	2.28	0.68
25:DA:637:A:H8	35:DP:117:GLU:HG3	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1178:C:H2'	25:BA:1179:C:H6	1.59	0.68
25:DA:1980:G:O2'	25:DA:1982:C:OP2	2.08	0.68
25:DA:989:G:OP2	49:D3:11:SER:OG	2.12	0.68
25:DA:495:G:H21	42:DW:61:ASN:HD21	1.41	0.68
1:CA:748:C:H4'	1:CA:749:C:O5'	1.92	0.68
34:DO:87:ILE:HG22	34:DO:93:PRO:HA	1.75	0.68
25:BA:1298:C:H5''	25:BA:1299:G:OP2	1.94	0.68
2:AB:75:LYS:HA	2:AB:78:GLN:HB2	1.75	0.68
1:AA:235:C:H5'	17:AQ:70:ARG:HG2	1.76	0.68
25:BA:1800:C:OP1	27:BD:266:SER:OG	2.08	0.68
52:D6:3:SER:H	52:D6:6:ARG:HB3	1.57	0.68
26:DB:90:A:C5	26:DB:91:C:H1'	2.28	0.68
25:DA:1721:G:H2'	25:DA:1740:G:O6	1.94	0.68
25:BA:271(K):U:H4'	25:BA:271(L):U:OP2	1.92	0.68
26:BB:86:G:H1	26:BB:91:C:N4	1.92	0.68
29:BF:63:LYS:HA	29:BF:76:GLY:O	1.93	0.68
25:DA:9:U:H3	25:DA:2629:A:H2	1.41	0.68
25:DA:2641:G:H5''	33:DN:76:SER:HB3	1.75	0.68
25:DA:2570:G:N7	58:DA:4187:HOH:O	2.26	0.68
25:DA:1140:C:O3'	33:DN:25:ARG:NH1	2.27	0.68
25:BA:2389:G:H5''	25:BA:2390:U:H5'	1.76	0.68
31:DH:20:ALA:HB3	31:DH:23:ARG:HB2	1.76	0.68
53:B7:47:ARG:HH11	53:B7:47:ARG:HB2	1.59	0.68
47:B1:18:ILE:HG12	47:B1:37:ILE:HG12	1.76	0.68
1:CA:460:G:C6	1:CA:470:C:H5''	2.27	0.68
25:BA:422:A:OP2	58:BA:5044:HOH:O	2.11	0.68
1:AA:531:U:O2	58:AA:2241:HOH:O	2.10	0.68
38:BS:95:HIS:C	38:BS:99:LYS:HB3	2.14	0.68
44:DY:61:ILE:HG13	44:DY:62:GLU:N	2.09	0.68
25:DA:995:C:O2	33:DN:3:THR:OG1	2.11	0.68
34:DO:24:VAL:HA	34:DO:39:ILE:HG22	1.74	0.68
25:DA:1693:U:O2'	27:DD:14:ARG:NH2	2.26	0.68
25:DA:1970:A:OP1	58:DA:4218:HOH:O	2.12	0.68
28:BE:24:THR:HG22	28:BE:186:GLY:O	1.94	0.68
25:DA:928:G:O6	58:DA:4234:HOH:O	2.09	0.68
25:DA:2816:C:O3'	37:DR:99:LYS:NZ	2.25	0.68
12:CL:70:ILE:HG23	12:CL:100:ILE:HD12	1.75	0.67
3:CC:36:ASP:HA	3:CC:39:ILE:HD12	1.76	0.67
43:BX:57:LEU:HD11	43:BX:78:LYS:HG2	1.76	0.67
1:CA:148:G:H2'	1:CA:149:A:H8	1.58	0.67
25:DA:848:G:H2'	25:DA:849:A:C8	2.29	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DF:157:VAL:HB	29:DF:194:MET:HG2	1.76	0.67
25:DA:2789:C:O3'	25:DA:2790:A:H4'	1.93	0.67
25:DA:248:G:OP1	58:DA:4630:HOH:O	2.11	0.67
37:DR:21:TYR:CZ	37:DR:43:GLU:HG2	2.29	0.67
26:BB:119:G:C2'	26:BB:120:A:C5'	2.68	0.67
1:CA:1158:C:H42	1:CA:1181:G:H1	1.43	0.67
31:DH:9:ILE:HB	31:DH:50:VAL:HB	1.76	0.67
25:BA:1466:G:O2'	25:BA:1546:C:O2'	1.98	0.67
25:DA:1983:C:H2'	25:DA:1984:G:H5''	1.76	0.67
2:AB:163:PHE:HA	2:AB:185:ILE:O	1.94	0.67
9:AI:103:THR:OG1	9:AI:104:ARG:N	2.28	0.67
25:BA:1278:A:OP1	37:BR:36:THR:HG23	1.94	0.67
25:BA:759:G:N7	58:BA:4939:HOH:O	2.28	0.67
5:AE:36:ASP:OD2	5:AE:38:GLN:N	2.28	0.67
25:DA:2820:A:OP2	37:DR:2:ARG:NH2	2.27	0.67
48:B2:1:MET:N	48:B2:52:ASP:OD1	2.19	0.67
9:CI:13:ALA:HB2	9:CI:68:GLY:HA3	1.76	0.67
45:BZ:39:VAL:HG21	45:BZ:44:PHE:HB2	1.75	0.67
25:BA:2036:C:OP1	58:BA:4649:HOH:O	2.12	0.67
7:CG:120:ILE:O	7:CG:124:LEU:HB2	1.95	0.67
3:AC:73:PRO:HB3	3:AC:103:VAL:HG11	1.77	0.67
1:AA:754:C:OP1	15:AO:72:ARG:NH1	2.27	0.67
25:DA:827:U:OP1	58:DA:4430:HOH:O	2.10	0.67
25:DA:531:C:OP1	25:DA:561:G:N1	2.28	0.67
2:AB:77:ALA:HB2	2:AB:211:ILE:HD13	1.77	0.67
25:BA:1140:C:O3'	33:BN:25:ARG:NH1	2.27	0.67
13:AM:37:THR:HG23	13:AM:59:TYR:HD2	1.59	0.67
27:DD:69:ARG:NH2	27:DD:128:GLY:O	2.28	0.67
1:CA:1261:A:H61	1:CA:1274:G:H1'	1.58	0.67
36:DQ:57:HIS:CD2	36:DQ:117:ALA:HB2	2.29	0.67
22:AY:61:HIS:HB3	22:AY:64:ILE:HG22	1.77	0.67
1:AA:1358:U:N3	1:AA:1363(A):A:N6	2.16	0.67
25:DA:2577:A:H5''	25:DA:2578:G:H5'	1.77	0.67
1:CA:1270:C:HO2'	1:CA:1313:U:HO2'	1.34	0.67
1:CA:509:A:C8	1:CA:509:A:H3'	2.29	0.67
7:AG:62:PHE:HA	7:AG:124:LEU:HD22	1.76	0.67
25:BA:2059:A:OP2	58:BA:4715:HOH:O	2.12	0.67
25:BA:308:G:N7	58:BA:4856:HOH:O	2.27	0.67
25:BA:2343:C:HO2'	25:BA:2373:G:HO2'	1.42	0.67
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.30	0.67
2:AB:187:LEU:HA	2:AB:201:ILE:HB	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:323:G:HO2'	25:DA:1205:U:H3	1.43	0.67
49:D3:10:LYS:HB3	49:D3:53:LEU:HA	1.75	0.67
1:AA:438:G:H4'	4:AD:123:HIS:HD2	1.60	0.67
1:CA:353:A:H8	1:CA:353:A:H5'	1.60	0.67
20:AT:75:ASN:OD1	20:AT:75:ASN:N	2.28	0.67
38:DS:18:ILE:O	38:DS:21:THR:HG22	1.94	0.67
25:BA:1310:G:OP2	53:B7:9:ARG:NH1	2.27	0.67
37:BR:44:LEU:HD22	37:BR:48:VAL:HG23	1.76	0.67
33:DN:104:LYS:HA	33:DN:107:LEU:HD12	1.77	0.67
25:DA:1337:G:OP2	43:DX:73:ARG:NH2	2.27	0.67
25:BA:2405:G:H4'	25:BA:2406:U:OP2	1.93	0.67
4:CD:162:LEU:HD22	4:CD:178:VAL:HG13	1.75	0.67
25:BA:1778:U:H2'	25:BA:1784:A:N6	2.09	0.67
25:BA:2292:C:OP1	38:BS:17:ARG:NH2	2.26	0.67
25:DA:1405:U:H2'	25:DA:1406:U:C6	2.29	0.67
1:AA:975:A:H4'	1:AA:976:G:H5''	1.75	0.66
25:DA:1721:G:N1	25:DA:1739:U:OP2	2.28	0.66
6:CF:69:GLU:O	6:CF:72:VAL:HG12	1.96	0.66
1:CA:1143:G:H2'	1:CA:1144:G:H8	1.60	0.66
1:CA:9:G:H2'	1:CA:10:A:H8	1.59	0.66
5:CE:91:LEU:HD12	5:CE:120:THR:HB	1.77	0.66
25:BA:769:G:N7	58:BA:4423:HOH:O	2.29	0.66
25:DA:660:G:H5'	29:DF:99:TYR:CD2	2.30	0.66
25:BA:1368:G:OP1	53:B7:28:ARG:NH2	2.28	0.66
2:AB:84:GLU:HB3	2:AB:219:VAL:HG21	1.77	0.66
38:DS:96:GLY:HA2	38:DS:100:ALA:H	1.60	0.66
36:DQ:35:VAL:HG22	36:DQ:36:ALA:H	1.60	0.66
1:CA:509:A:H8	1:CA:509:A:H3'	1.61	0.66
27:DD:5:LYS:HA	27:DD:17:THR:HG22	1.76	0.66
1:CA:980:C:H5'	1:CA:981:U:OP2	1.96	0.66
25:DA:15:G:OP2	58:DA:4287:HOH:O	2.12	0.66
1:AA:201:C:H42	1:AA:216:G:H1	1.42	0.66
2:CB:178:ARG:HH12	8:CH:68:ARG:NH2	1.93	0.66
25:DA:2019:A:O3'	40:DU:27:LEU:HD12	1.95	0.66
1:AA:1226:C:O2'	13:AM:111:LYS:NZ	2.27	0.66
25:DA:548:A:H61	41:DV:19:LYS:H	1.43	0.66
3:CC:18:TRP:CD1	14:CN:54:PRO:HA	2.31	0.66
36:DQ:37:LEU:HD21	36:DQ:130:LYS:HB2	1.77	0.66
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.30	0.66
31:DH:113:VAL:HG21	31:DH:151:ILE:HG21	1.77	0.66
3:AC:15:THR:HG21	3:AC:181:ASN:HA	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:71:LEU:HD13	5:CE:74:GLY:HA2	1.75	0.66
45:BZ:69:THR:HG22	45:BZ:90:VAL:HA	1.76	0.66
35:BP:39:LYS:HB2	35:BP:45:LEU:HG	1.77	0.66
1:AA:473:G:H2'	1:AA:474:G:H8	1.61	0.66
22:AY:32:LYS:HG3	25:BA:2507:C:H5'	1.77	0.66
38:DS:96:GLY:HA2	38:DS:97:ARG:C	2.16	0.66
25:BA:2464:C:O2	58:BA:5236:HOH:O	2.07	0.66
25:BA:1021:A:H62	25:BA:1141:U:H3	1.43	0.66
25:DA:301:G:OP2	44:DY:84:ARG:NH2	2.22	0.66
46:D0:65:GLY:HA3	46:D0:81:VAL:HG12	1.77	0.66
25:BA:2850:A:OP2	25:BA:2866:U:H5	1.77	0.66
20:AT:63:ILE:HD13	20:AT:80:ARG:HB3	1.76	0.66
4:CD:14:ARG:HA	4:CD:39:PRO:HG3	1.77	0.66
1:CA:1347:G:H8	9:CI:107:ARG:HB3	1.60	0.66
1:CA:1074:G:O2'	1:CA:1101:A:N1	2.25	0.66
6:AF:10:LEU:HD23	6:AF:61:LEU:HD13	1.78	0.66
1:AA:1352:C:OP1	21:AU:3:LYS:NZ	2.24	0.66
25:BA:2638:G:P	28:BE:82:ARG:HH22	2.18	0.66
44:DY:23:ARG:HG2	44:DY:42:VAL:HG22	1.77	0.66
25:DA:1316:U:H2'	25:DA:1317:A:C8	2.30	0.66
33:BN:73:THR:HG23	33:BN:82:LEU:HD11	1.78	0.66
13:AM:20:THR:HA	13:AM:25:ILE:HG22	1.78	0.66
25:DA:363:G:H2'	25:DA:363(A):A:H8	1.59	0.66
1:AA:1136:U:H5''	1:AA:1137:C:N3	2.11	0.66
32:DI:54:GLN:HG2	32:DI:57:ARG:HH21	1.61	0.66
25:DA:602:G:O2'	25:DA:655:A:N6	2.29	0.66
1:AA:431:A:H2'	1:AA:432:A:O4'	1.95	0.66
1:CA:975:A:H4'	1:CA:976:G:H5''	1.77	0.66
16:CP:56:ALA:O	16:CP:60:LEU:HB2	1.95	0.66
25:BA:2364:C:H4'	46:B0:56:ASP:OD2	1.96	0.66
29:DF:162:LEU:H	29:DF:162:LEU:HD22	1.60	0.66
9:AI:105:ASP:HB2	9:AI:107:ARG:NE	2.11	0.66
22:AY:106:ARG:NH1	25:BA:1914:C:OP2	2.29	0.66
1:AA:1316:G:H4'	14:AN:18:VAL:HG13	1.78	0.66
5:CE:102:ALA:O	5:CE:107:ARG:NH1	2.29	0.66
31:DH:8:PRO:O	31:DH:69:ARG:NH1	2.29	0.66
1:AA:910:C:OP1	12:AL:97:ARG:NH2	2.29	0.66
3:CC:47:LEU:HB3	3:CC:52:LEU:HD12	1.77	0.66
25:BA:2833:G:H3'	25:BA:2834:G:C5'	2.25	0.66
20:CT:90:GLN:HA	20:CT:93:GLU:HB2	1.78	0.66
25:BA:187:G:N7	58:BA:4449:HOH:O	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:87:SER:HA	8:AH:93:VAL:HG23	1.78	0.66
26:BB:77:U:OP1	45:BZ:19:ARG:NH2	2.29	0.66
25:DA:1204:A:H2	25:DA:1241:A:H62	1.44	0.66
25:DA:1599:C:H2'	25:DA:1600:C:H6	1.60	0.66
22:AY:35:THR:O	22:AY:37:ILE:HG12	1.95	0.65
1:AA:625:G:H2'	1:AA:626:U:C6	2.31	0.65
15:AO:15:PHE:CE2	15:AO:84:LYS:HD2	2.30	0.65
1:AA:461:A:O2'	1:AA:471:G:N7	2.26	0.65
6:CF:61:LEU:HB3	6:CF:63:TYR:HE2	1.61	0.65
1:CA:1128:C:O2'	1:CA:1130:A:N7	2.28	0.65
25:DA:2313:C:H2'	25:DA:2314:C:H6	1.61	0.65
25:BA:1430:C:H2'	25:BA:1431:U:C6	2.32	0.65
12:AL:53:ARG:HG2	12:AL:69:TYR:CE1	2.29	0.65
17:CQ:24:GLU:HA	17:CQ:39:SER:HB3	1.77	0.65
3:AC:182:ILE:HG12	3:AC:203:PHE:HD1	1.61	0.65
2:CB:47:THR:O	2:CB:51:LEU:N	2.28	0.65
7:AG:46:ALA:O	7:AG:50:ILE:N	2.28	0.65
8:AH:45:ILE:HD12	8:AH:47:GLY:HA2	1.78	0.65
25:DA:783:A:OP2	58:DA:3805:HOH:O	2.12	0.65
25:BA:32:C:O2'	25:BA:33:U:H5'	1.96	0.65
1:CA:619:U:N3	4:CD:134:ASP:OD2	2.30	0.65
25:BA:960:A:H5''	25:BA:961:C:OP2	1.97	0.65
40:DU:92:ARG:HA	40:DU:95:LEU:HB2	1.77	0.65
11:CK:87:THR:HA	11:CK:91:ARG:HH21	1.59	0.65
25:BA:177:G:OP1	58:BA:4985:HOH:O	2.14	0.65
9:AI:29:ASN:ND2	9:AI:65:VAL:O	2.27	0.65
25:BA:2206:G:H3'	25:BA:2207:G:C8	2.32	0.65
25:DA:1614:A:OP1	58:DA:4124:HOH:O	2.13	0.65
25:DA:2316:C:H4'	30:DG:128:ARG:HD2	1.79	0.65
31:DH:90:LYS:NZ	31:DH:159:GLU:OE1	2.29	0.65
1:CA:971:G:OP2	1:CA:1231:G:N2	2.20	0.65
1:AA:600:C:H2'	1:AA:601:C:C6	2.31	0.65
1:CA:376:G:H4'	16:CP:5:ARG:NH1	2.12	0.65
38:BS:101:LEU:O	38:BS:103:GLU:N	2.29	0.65
25:DA:1762:A:H2'	58:DA:4689:HOH:O	1.97	0.65
35:BP:52:GLU:OE1	35:BP:55:ARG:NH1	2.28	0.65
22:AY:61:HIS:ND1	22:AY:62:HIS:O	2.30	0.65
32:BI:107:VAL:HG12	32:BI:108:THR:H	1.62	0.65
1:CA:60:A:H4'	1:CA:61:G:O5'	1.96	0.65
1:CA:222:U:H2'	1:CA:223:U:C6	2.32	0.65
50:D4:33:VAL:HG12	50:D4:34:GLU:H	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:40:U:O4	50:D4:1:MET:N	2.22	0.65
25:BA:2319:G:N2	38:BS:3:ARG:HA	2.12	0.65
10:AJ:11:PHE:CE2	10:AJ:67:THR:HG22	2.31	0.65
25:DA:997:G:OP2	40:DU:58:ARG:NH1	2.30	0.65
48:D2:65:ASN:OD1	48:D2:69:ARG:NH1	2.30	0.65
30:DG:39:ILE:HG23	30:DG:157:ILE:HG12	1.78	0.65
25:DA:607:U:OP1	29:DF:102:PRO:HA	1.95	0.65
25:DA:987:G:OP2	58:DA:4261:HOH:O	2.14	0.65
31:BH:41:MET:HE2	31:BH:65:HIS:HA	1.79	0.65
28:DE:116:VAL:HG13	28:DE:122:PHE:HB2	1.77	0.65
32:DI:29:TYR:O	32:DI:33:ARG:HG3	1.97	0.65
38:BS:58:LEU:HB2	38:BS:59:LYS:HB2	1.78	0.65
25:DA:2574:G:OP1	58:DA:3865:HOH:O	2.13	0.65
1:CA:1490:C:H2'	1:CA:1491:G:O4'	1.97	0.65
47:D1:26:ARG:N	58:D1:202:HOH:O	2.29	0.65
1:CA:766:A:OP2	58:CA:2037:HOH:O	2.13	0.65
41:DV:6:LYS:HE3	41:DV:9:GLY:HA2	1.78	0.65
25:DA:2689:U:OP2	25:DA:2719:G:N2	2.30	0.65
3:CC:134:ILE:HD11	3:CC:153:VAL:HG21	1.79	0.65
26:BB:11:C:H3'	26:BB:12:C:H6	1.60	0.65
1:AA:757:U:H2'	1:AA:758:G:O4'	1.97	0.65
25:DA:2282:G:O2'	25:DA:2283:C:OP2	2.11	0.65
25:DA:2659:G:N7	58:DA:4723:HOH:O	2.28	0.65
25:BA:1859:A:N6	25:BA:1883:G:O2'	2.30	0.65
25:DA:1315:C:OP2	58:DA:3824:HOH:O	2.13	0.65
38:DS:59:LYS:H	38:DS:60:GLY:HA3	1.62	0.65
31:DH:9:ILE:N	31:DH:50:VAL:O	2.30	0.65
2:CB:178:ARG:HH12	8:CH:68:ARG:HH22	1.45	0.65
1:AA:598:U:H4'	8:AH:94:TYR:CD2	2.32	0.65
30:BG:64:THR:HB	30:BG:94:LEU:HD11	1.78	0.65
29:DF:34:TRP:CZ2	35:DP:8:PRO:HG3	2.32	0.65
49:B3:6:VAL:HG12	49:B3:54:VAL:HG11	1.79	0.65
2:CB:86:GLU:O	2:CB:89:GLY:N	2.30	0.65
27:BD:83:GLU:OE2	27:BD:104:TYR:OH	2.10	0.65
22:AY:16:GLU:HB2	22:AY:41:PHE:HB2	1.78	0.65
1:CA:1320:C:H5'	19:CS:70:LYS:HD3	1.78	0.65
25:BA:1022:G:H22	25:BA:1142(A):A:H2	1.45	0.65
34:BO:8:LEU:HB2	34:BO:19:ILE:HG13	1.79	0.65
31:DH:159:GLU:HG3	31:DH:169:VAL:HG21	1.79	0.65
1:CA:1492:A:H4'	1:CA:1493:A:OP1	1.95	0.65
25:DA:1430:C:H2'	25:DA:1431:U:C6	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BF:185:ASP:OD1	29:BF:188:ARG:NH1	2.28	0.65
25:BA:545:G:H4'	25:BA:545:G:OP1	1.94	0.65
15:AO:25:THR:HG21	15:AO:70:LEU:HB2	1.79	0.65
31:BH:149:ARG:HH11	31:BH:149:ARG:HG3	1.60	0.65
2:AB:155:LEU:HD11	2:AB:159:PRO:HD3	1.79	0.65
25:BA:1518:U:H2'	25:BA:1519:G:O4'	1.97	0.65
14:CN:24:CYS:SG	14:CN:25:VAL:N	2.70	0.65
25:BA:1342:A:OP2	58:BA:4554:HOH:O	2.15	0.65
2:CB:134:GLU:HA	2:CB:137:ARG:HE	1.61	0.65
1:AA:171:A:H2'	1:AA:172:A:C8	2.32	0.64
25:DA:994:C:OP1	40:DU:53:ARG:NH2	2.30	0.64
15:CO:56:LEU:O	15:CO:60:VAL:HG23	1.96	0.64
1:AA:857:C:H2'	1:AA:858:G:O4'	1.97	0.64
25:BA:1980:G:O2'	25:BA:1982:C:OP2	2.12	0.64
5:AE:83:GLU:HB3	5:AE:88:LYS:HB2	1.79	0.64
2:CB:163:PHE:HA	2:CB:185:ILE:O	1.96	0.64
25:DA:1503:U:H2'	25:DA:1504:C:H6	1.62	0.64
25:DA:1252:G:N3	40:DU:33:ARG:HD2	2.12	0.64
25:BA:639:U:H2'	25:BA:640:C:C6	2.32	0.64
27:DD:176:ARG:HG3	27:DD:176:ARG:O	1.96	0.64
32:DI:110:ASP:N	32:DI:130:TYR:OH	2.22	0.64
25:BA:139(A):G:N7	58:BA:4063:HOH:O	2.30	0.64
25:BA:728:G:H4'	27:BD:13:ARG:HD3	1.79	0.64
48:B2:51:ARG:O	48:B2:54:LYS:N	2.30	0.64
27:DD:242:ARG:N	27:DD:242:ARG:HD3	2.12	0.64
8:CH:85:ARG:HH21	8:CH:134:ILE:HG23	1.62	0.64
25:DA:1031:G:H21	55:D9:36:GLN:HE22	1.44	0.64
1:AA:542:G:P	4:AD:10:ARG:HH22	2.20	0.64
25:DA:1529:G:O6	25:DA:1530:C:N4	2.31	0.64
14:AN:23:ARG:HD2	14:AN:28:GLY:O	1.98	0.64
1:CA:552:U:O3'	12:CL:87:GLY:HA3	1.98	0.64
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.32	0.64
1:CA:1376:U:H2'	1:CA:1377:A:C8	2.33	0.64
41:DV:29:PRO:HA	41:DV:61:VAL:HG22	1.79	0.64
25:BA:2657:A:H5''	25:BA:2658:C:OP2	1.98	0.64
25:BA:1188:U:H4'	41:BV:79:VAL:HG22	1.79	0.64
25:DA:102:G:OP1	48:D2:7:ARG:NH2	2.31	0.64
2:CB:97:TRP:HZ2	2:CB:102:LEU:HD13	1.62	0.64
25:DA:1614:A:OP1	58:DA:4125:HOH:O	2.15	0.64
15:CO:82:ILE:HD12	15:CO:88:ARG:HH22	1.62	0.64
1:CA:1197:G:OP2	58:CA:2063:HOH:O	2.15	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:45:U:H2'	1:CA:46:G:C8	2.33	0.64
4:AD:109:GLY:O	4:AD:111:ALA:N	2.31	0.64
15:CO:25:THR:HG21	15:CO:70:LEU:HB2	1.79	0.64
26:DB:55:U:O3'	30:DG:27:ASN:ND2	2.31	0.64
50:B4:18:CYS:CB	50:B4:20:ASN:HB2	2.26	0.64
25:DA:2712(A):A:H5''	25:DA:2713:A:OP2	1.98	0.64
25:BA:1187:G:H5''	41:BV:81:TYR:CE2	2.33	0.64
1:CA:1423:G:H2'	1:CA:1424:C:C6	2.33	0.64
1:AA:1286:A:H2'	1:AA:1287:A:H4'	1.79	0.64
7:CG:111:ARG:NH1	7:CG:113:GLU:OE2	2.30	0.64
23:CV:19:G:N2	23:CV:56:C:O2	2.29	0.64
1:CA:758:G:N7	58:CA:1981:HOH:O	2.30	0.64
25:DA:288:C:H2'	25:DA:289:A:H8	1.63	0.64
22:AY:34:SER:OG	22:AY:36:ALA:HB3	1.98	0.64
1:AA:1227:A:OP2	13:AM:111:LYS:HE3	1.97	0.64
25:BA:271(I):G:O6	58:BA:5049:HOH:O	2.12	0.64
1:CA:1117:G:H5'	1:CA:1118:C:OP2	1.96	0.64
1:CA:501:C:H2'	1:CA:502:G:H8	1.63	0.64
25:DA:1503:U:H2'	25:DA:1504:C:C6	2.32	0.64
7:AG:73:MET:HA	7:AG:90:GLU:HA	1.80	0.64
34:DO:19:ILE:HG22	34:DO:43:VAL:HA	1.80	0.64
25:DA:601:C:O2'	29:DF:104:LYS:NZ	2.30	0.64
3:CC:164:ARG:NH1	3:CC:166:GLU:OE1	2.31	0.64
28:BE:28:ALA:HB3	28:BE:93:VAL:HG12	1.78	0.64
12:AL:90:VAL:HB	12:AL:93:LEU:HB2	1.78	0.64
26:DB:103:G:N7	58:DB:320:HOH:O	2.30	0.64
9:AI:44:VAL:N	9:AI:45:ALA:HA	2.12	0.64
2:CB:163:PHE:CD2	2:CB:185:ILE:HB	2.32	0.64
10:CJ:37:PRO:HA	10:CJ:72:VAL:HG12	1.80	0.64
17:CQ:57:VAL:HA	17:CQ:77:VAL:HG23	1.80	0.64
4:CD:22:LYS:HG3	4:CD:31:CYS:SG	2.38	0.64
1:CA:129(A):G:N2	1:CA:189(H):G:N7	2.45	0.64
25:DA:1876:A:H2'	25:DA:1877:A:C8	2.33	0.64
25:BA:185:U:H4'	25:BA:218:A:H4'	1.79	0.64
1:AA:920:U:H2'	1:AA:921:U:C6	2.33	0.64
1:CA:473:G:H2'	1:CA:474:G:H8	1.63	0.64
1:AA:538:G:H5''	12:AL:114:LYS:HB2	1.77	0.64
1:AA:721:G:H4'	1:AA:722:A:O4'	1.97	0.64
44:DY:13:VAL:HG12	44:DY:74:PRO:HA	1.78	0.64
48:D2:50:ILE:O	48:D2:51:ARG:HB3	1.97	0.64
38:BS:31:SER:O	38:BS:97:ARG:NH2	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1654:A:H1'	25:DA:2823:A:H5'	1.80	0.64
1:AA:376:G:H2'	1:AA:377:G:H8	1.62	0.64
46:B0:27:GLU:HG3	46:B0:68:GLU:HA	1.79	0.64
25:DA:1378:A:OP1	53:D7:10:ARG:NH2	2.31	0.64
1:CA:646:U:H2'	1:CA:647:C:C6	2.33	0.64
39:DT:81:PRO:HG2	39:DT:82:LEU:HD12	1.80	0.64
35:DP:121:LYS:HG2	35:DP:122:PRO:HD2	1.79	0.64
1:AA:992:U:H4'	1:AA:993:G:O5'	1.97	0.64
2:CB:78:GLN:O	2:CB:94:ASN:ND2	2.31	0.64
1:AA:1530:G:O2'	1:AA:1531:A:OP1	2.16	0.64
32:DI:72:LEU:HD21	32:DI:107:VAL:HG11	1.80	0.64
1:CA:1126:U:O2'	1:CA:1127:G:O5'	2.10	0.64
1:AA:1118:C:H1'	1:AA:1179:A:C4	2.32	0.64
1:CA:1143:G:H2'	1:CA:1144:G:C8	2.33	0.64
3:AC:22:TRP:CD1	3:AC:59:ARG:HD2	2.33	0.64
25:BA:566:U:H5''	35:BP:29:LYS:HE3	1.79	0.64
47:B1:54:ALA:HB1	47:B1:83:GLU:HG3	1.80	0.64
25:DA:804:A:H5''	25:DA:805:G:OP1	1.98	0.63
25:DA:993:G:C4	25:DA:994:C:H5	2.16	0.63
35:BP:96:THR:HA	35:BP:126:VAL:HG23	1.78	0.63
25:DA:2101:G:C2	25:DA:2102:U:H1'	2.32	0.63
43:BX:31:HIS:CD2	43:BX:33:LYS:H	2.16	0.63
12:CL:113:ARG:NH2	58:CL:203:HOH:O	2.31	0.63
28:BE:111:ARG:HG3	28:BE:160:TYR:CD1	2.33	0.63
30:DG:33:ARG:NE	30:DG:162:THR:HG21	2.13	0.63
25:DA:1210:A:H5''	25:DA:1212:G:H5'	1.79	0.63
25:BA:1047:G:H2'	25:BA:1110:G:N2	2.12	0.63
32:BI:79:ILE:HB	32:BI:144:VAL:HG23	1.80	0.63
1:AA:187:C:O2	58:AA:2208:HOH:O	2.13	0.63
25:BA:71:A:C2	43:BX:31:HIS:HE1	2.16	0.63
25:BA:1226:A:OP1	41:BV:84:LYS:NZ	2.22	0.63
35:DP:100:LEU:HD22	35:DP:105:LEU:HB2	1.80	0.63
30:DG:76:SER:HA	30:DG:83:ARG:HA	1.78	0.63
22:AY:33:THR:OG1	25:BA:2452:C:OP1	2.04	0.63
1:AA:266:G:O2'	1:AA:267:C:OP2	2.12	0.63
1:CA:1358:U:H5''	14:CN:34:TYR:HA	1.79	0.63
25:BA:1364:G:P	47:B1:3:LYS:HG3	2.39	0.63
55:B9:11:CYS:HB3	55:B9:32:HIS:CE1	2.27	0.63
26:DB:43:C:O2	30:DG:95:ARG:NH2	2.31	0.63
25:BA:2298:A:H62	25:BA:2318:G:H8	1.44	0.63
13:CM:94:ARG:HB3	13:CM:96:LEU:HG	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D1:77:ALA:HB2	47:D1:94:LEU:HD21	1.80	0.63
1:CA:6:G:O2'	1:CA:7:G:H5''	1.97	0.63
25:BA:697:C:H2'	25:BA:698:C:C6	2.33	0.63
1:CA:1323:G:H2'	1:CA:1324:A:C8	2.34	0.63
1:AA:1363(A):A:H1'	1:AA:1365:G:N7	2.13	0.63
25:BA:1364:G:C8	47:B1:3:LYS:HD2	2.32	0.63
1:AA:1149:C:H2'	1:AA:1150:U:H6	1.63	0.63
33:BN:24:GLY:HA2	33:BN:27:ALA:HB2	1.80	0.63
25:BA:1359:A:H2'	25:BA:1360:A:H5'	1.80	0.63
5:AE:15:ARG:HH22	22:AY:129:LYS:HG3	1.63	0.63
45:BZ:111:VAL:C	45:BZ:113:ALA:H	2.02	0.63
8:CH:97:VAL:O	8:CH:100:ILE:HG13	1.99	0.63
29:DF:110:LEU:HD22	29:DF:202:PHE:HE1	1.64	0.63
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.33	0.63
52:D6:16:CYS:CB	52:D6:43:CYS:SG	2.78	0.63
25:DA:1529:G:C6	25:DA:1530:C:N4	2.67	0.63
1:CA:586:C:C2'	1:CA:587:G:H5'	2.29	0.63
32:BI:72:LEU:HD12	32:BI:138:ILE:HG21	1.80	0.63
6:CF:62:TRP:C	6:CF:63:TYR:HD2	2.02	0.63
1:CA:993:G:N7	1:CA:1213:A:N6	2.47	0.63
4:AD:36:ARG:HH11	4:AD:36:ARG:HG2	1.62	0.63
34:DO:68:GLU:OE2	34:DO:78:ARG:NH1	2.32	0.63
3:AC:52:LEU:H	3:AC:70:VAL:HG23	1.62	0.63
13:CM:16:ASP:HB3	13:CM:34:LEU:HD11	1.79	0.63
1:AA:1221:G:OP1	1:AA:1320:C:N4	2.31	0.63
1:CA:1497:G:H8	58:CA:2223:HOH:O	1.81	0.63
25:DA:1495:A:H2'	25:DA:1496:A:C8	2.32	0.63
1:AA:147:G:H2'	1:AA:148:G:H8	1.64	0.63
1:CA:728:A:N7	15:CO:54:ARG:HD2	2.13	0.63
43:BX:57:LEU:HD11	43:BX:78:LYS:HE2	1.80	0.63
25:DA:2080:G:H5'	47:D1:19:GLN:HG3	1.78	0.63
25:BA:271(F):C:H2'	25:BA:271(G):C:H6	1.64	0.63
28:DE:120:TRP:CE3	28:DE:155:LYS:HD3	2.34	0.63
13:CM:44:ARG:O	13:CM:46:LYS:N	2.26	0.63
29:DF:164:ARG:HD2	29:DF:175:THR:HG23	1.81	0.63
1:AA:448:A:OP2	1:AA:485:G:N1	2.23	0.63
27:DD:132:PRO:HD3	27:DD:190:TYR:CZ	2.34	0.63
34:BO:34:THR:OG1	34:BO:35:VAL:N	2.31	0.63
43:BX:60:ARG:HH11	43:BX:60:ARG:HB3	1.62	0.63
37:BR:28:LEU:HD12	37:BR:48:VAL:HG21	1.79	0.63
26:BB:11:C:H3'	26:BB:12:C:C6	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:38:ILE:HG12	10:AJ:71:LEU:O	1.98	0.63
1:AA:677:U:H3	1:AA:713:G:H22	1.46	0.63
29:BF:52:LYS:HG2	29:BF:56:GLU:HB2	1.81	0.63
1:CA:953:G:H5'	1:CA:965:A:N6	2.13	0.63
1:CA:1292:U:OP2	7:CG:41:ARG:NH2	2.32	0.63
33:DN:62:VAL:HG21	33:DN:87:LEU:HD11	1.81	0.63
25:BA:2833:G:H3'	25:BA:2834:G:H5'	1.80	0.63
2:AB:21:ARG:HB3	2:AB:39:ILE:HG12	1.79	0.63
27:DD:71:ASP:OD1	27:DD:103:ARG:NH2	2.31	0.63
25:DA:1313:U:H2'	25:DA:1610:A:C2	2.34	0.63
1:CA:1262:C:H2'	1:CA:1263:C:C6	2.33	0.63
12:AL:43:VAL:HG13	12:AL:55:VAL:HG21	1.81	0.63
25:DA:2356:C:O3'	46:D0:20:ARG:HD3	1.99	0.63
1:CA:870:U:H6	1:CA:870:U:H5'	1.63	0.63
25:DA:674:G:O2'	29:DF:74:ARG:HD3	1.99	0.63
3:CC:67:THR:HB	3:CC:102:ASN:HB3	1.81	0.63
25:DA:1448:G:H4'	25:DA:1542:A:OP1	1.99	0.63
3:AC:70:VAL:HG22	3:AC:71:ALA:H	1.64	0.63
27:BD:132:PRO:HD2	27:BD:135:PHE:HD1	1.64	0.63
45:DZ:54:HIS:ND1	45:DZ:101:PRO:HG3	2.14	0.63
48:B2:44:LEU:HG	48:B2:45:SER:O	1.99	0.63
40:BU:47:TYR:HA	40:BU:50:ARG:NH2	2.14	0.63
29:DF:197:ASP:N	29:DF:197:ASP:OD2	2.32	0.63
25:BA:1824:G:OP1	27:BD:52:ARG:NH1	2.31	0.63
1:AA:165:C:H2'	1:AA:166:G:C8	2.34	0.62
25:BA:1044:G:H5'	25:BA:1045:A:OP2	1.99	0.62
13:CM:90:LEU:O	13:CM:91:ARG:HG2	1.99	0.62
1:AA:401:C:OP2	4:AD:73:ARG:HD2	1.98	0.62
25:DA:2183:C:H2'	25:DA:2184:G:C8	2.33	0.62
11:CK:29:ILE:HG23	11:CK:44:SER:HB3	1.81	0.62
1:AA:881:G:P	12:AL:12:ARG:HH22	2.22	0.62
47:B1:40:ARG:HD3	47:B1:40:ARG:C	2.19	0.62
31:DH:95:ARG:HB2	31:DH:128:PRO:HB3	1.81	0.62
25:BA:1364:G:OP1	47:B1:2:SER:HA	1.99	0.62
16:CP:43:LYS:O	16:CP:45:THR:N	2.31	0.62
25:BA:2316:C:H2'	25:BA:2317:C:H6	1.65	0.62
1:CA:559:A:H4'	1:CA:560:U:C5'	2.29	0.62
1:AA:457:C:H2'	1:AA:458:C:C6	2.34	0.62
25:DA:89:G:H3'	25:DA:90:U:H5''	1.81	0.62
25:BA:2304:G:H22	25:BA:2312:U:H3	1.47	0.62
1:AA:688:G:H2'	1:AA:689:C:H6	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BT:84:GLN:HG2	39:BT:85:LYS:HG3	1.79	0.62
5:CE:126:ARG:CG	5:CE:126:ARG:HH11	2.12	0.62
54:D8:58:ILE:HA	54:D8:61:LEU:HD12	1.82	0.62
45:DZ:145:GLU:HG3	45:DZ:146:ILE:H	1.64	0.62
20:CT:18:GLN:O	20:CT:22:ARG:HG3	1.99	0.62
25:BA:1178:C:H2'	25:BA:1179:C:C6	2.34	0.62
25:DA:1019:U:H3	25:DA:1142(A):A:H62	1.47	0.62
30:BG:111:LEU:HD13	30:BG:120:LEU:HD21	1.80	0.62
1:AA:539:A:H2'	1:AA:540:G:C8	2.34	0.62
1:AA:540:G:H2'	1:AA:541:G:O4'	1.98	0.62
25:DA:1472:A:H2'	25:DA:1473:G:O4'	1.99	0.62
7:AG:36:LYS:HA	7:AG:39:ALA:HB3	1.80	0.62
25:BA:1156:A:C8	40:BU:51:LYS:HG2	2.33	0.62
1:AA:160:A:H2'	1:AA:161:A:O4'	2.00	0.62
1:CA:129(A):G:O6	1:CA:189(D):C:N3	2.31	0.62
31:BH:3:ARG:NE	31:BH:3:ARG:HA	2.13	0.62
15:AO:39:LEU:HD22	15:AO:43:LEU:HG	1.82	0.62
1:AA:507:C:OP2	1:AA:508:C:O2'	2.13	0.62
25:DA:1899:G:H2'	25:DA:1899:G:N3	2.14	0.62
25:DA:2324:C:H5''	25:DA:2325:G:H5'	1.80	0.62
32:DI:92:VAL:HG22	32:DI:120:ILE:HB	1.81	0.62
26:DB:31:C:O2'	26:DB:53:A:N6	2.31	0.62
32:DI:75:LEU:HD23	32:DI:105:HIS:NE2	2.14	0.62
25:DA:1557:C:P	25:DA:1558:A:HO2'	2.22	0.62
38:DS:88:ASP:OD1	38:DS:90:GLY:N	2.32	0.62
15:AO:3:ILE:HG23	15:AO:38:ARG:HD3	1.79	0.62
1:AA:1326:C:OP1	21:AU:12:LYS:NZ	2.28	0.62
45:DZ:94:GLU:O	45:DZ:130:PRO:HD3	1.99	0.62
25:BA:1249:U:OP1	58:BA:5376:HOH:O	2.16	0.62
1:AA:1019:C:H2'	1:AA:1020:U:O4'	1.99	0.62
1:AA:166:G:O2'	1:AA:167:G:H5'	1.99	0.62
2:CB:163:PHE:HD2	2:CB:185:ILE:HB	1.64	0.62
25:DA:2847:U:OP1	39:DT:98:LYS:NZ	2.33	0.62
39:BT:56:GLY:O	39:BT:59:THR:HG23	1.99	0.62
25:BA:1799:G:O6	27:BD:179:SER:HB3	2.00	0.62
1:AA:438:G:O2'	1:AA:494:U:O4	2.17	0.62
39:DT:26:ASP:O	39:DT:49:VAL:HG12	2.00	0.62
25:DA:1857:G:H8	25:DA:1857:G:O5'	1.83	0.62
1:CA:811:C:O2'	1:CA:901:A:N1	2.32	0.62
25:DA:2533:A:OP1	25:DA:2665:A:O2'	2.16	0.62
13:AM:48:LEU:O	13:AM:52:GLU:HB2	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DT:27:THR:HB	39:DT:89:VAL:HG22	1.82	0.62
32:DI:77:LEU:HG	32:DI:101:LEU:HD23	1.80	0.62
42:BW:79:GLY:HA3	42:BW:100:THR:HG22	1.80	0.62
25:BA:1878:G:H2'	25:BA:1879:C:C6	2.35	0.62
1:AA:1090:U:H2'	1:AA:1091:U:H6	1.64	0.62
1:AA:182:U:C2	1:AA:183:G:H1'	2.35	0.62
1:CA:1369:C:OP1	14:CN:61:TRP:NE1	2.29	0.62
25:BA:907:U:H4'	36:BQ:101:ARG:HH22	1.63	0.62
7:CG:89:MET:HG3	7:CG:155:ARG:HG3	1.80	0.62
1:CA:520:A:N1	1:CA:536:C:H1'	2.15	0.62
25:BA:1227:G:OP2	40:BU:16:LYS:NZ	2.32	0.62
48:B2:16:LEU:H	48:B2:16:LEU:HD12	1.62	0.62
25:DA:2218:U:H4'	25:DA:2219:G:OP2	1.98	0.62
1:AA:1171:G:H2'	1:AA:1172:C:C6	2.35	0.62
2:CB:185:ILE:HG23	2:CB:199:TYR:HB2	1.82	0.62
25:BA:271(I):G:H1	25:BA:271(O):C:H42	1.48	0.62
45:BZ:15:PRO:O	45:BZ:19:ARG:HB2	1.99	0.62
25:BA:2336:A:H61	46:B0:43:THR:HG22	1.64	0.62
29:DF:9:ILE:HG21	29:DF:125:LEU:HD13	1.80	0.62
4:CD:59:ARG:O	4:CD:62:GLN:N	2.33	0.62
11:CK:82:VAL:HB	11:CK:108:ILE:HG12	1.82	0.62
25:DA:954:G:H5''	36:DQ:13:GLN:HB3	1.82	0.62
25:DA:833:U:O2	35:DP:55:ARG:NH2	2.32	0.62
25:DA:342:G:N7	58:DA:4246:HOH:O	2.31	0.62
10:CJ:40:LEU:HB3	10:CJ:41:PRO:HD2	1.81	0.62
30:BG:125:PHE:N	58:BG:303:HOH:O	2.31	0.62
25:BA:1292:U:H2'	25:BA:1293:C:C6	2.34	0.62
29:DF:135:LYS:HB2	29:DF:138:GLU:HG3	1.82	0.62
1:AA:611:A:H61	1:AA:629:G:H1	1.46	0.62
37:DR:52:ILE:HD12	37:DR:94:TYR:HB2	1.81	0.62
25:DA:1530:C:N4	25:DA:1539:G:H1	1.97	0.62
35:BP:90:ARG:HG2	35:BP:91:PHE:CD2	2.35	0.62
25:BA:2331:G:O2'	46:B0:43:THR:HG22	2.00	0.62
25:DA:2277:G:H3'	46:D0:12:ASN:HD21	1.65	0.62
25:BA:471:A:O3'	58:BA:4963:HOH:O	2.16	0.62
1:AA:586:C:C2'	1:AA:587:G:H5'	2.30	0.62
28:DE:14:ILE:HD11	28:DE:173:VAL:HG11	1.82	0.62
1:AA:129(A):G:N2	1:AA:189(H):G:N7	2.48	0.62
25:DA:271(U):G:H2'	25:DA:271(V):G:H8	1.65	0.62
25:BA:413:C:H2'	25:BA:414:C:C6	2.35	0.62
25:BA:1690:A:H5''	25:BA:1691:C:OP2	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:73:GLU:O	13:CM:77:ASN:HB2	1.99	0.62
1:AA:1128:C:O2'	1:AA:1130:A:N7	2.32	0.61
1:AA:77:G:O6	1:AA:92:C:N3	2.34	0.61
1:AA:1225:A:N3	1:AA:1225:A:H2'	2.15	0.61
2:CB:100:GLY:HA2	2:CB:104:ASN:H	1.64	0.61
25:DA:2448:A:OP2	58:DA:4708:HOH:O	2.16	0.61
45:DZ:126:VAL:HG13	45:DZ:163:LEU:HA	1.81	0.61
1:AA:100:C:H2'	1:AA:101:A:C8	2.35	0.61
1:AA:1272:G:H8	1:AA:1272:G:H5''	1.65	0.61
5:AE:76:ILE:HD13	5:AE:118:ILE:HD12	1.82	0.61
27:DD:58:HIS:ND1	27:DD:59:LYS:N	2.48	0.61
1:CA:573:A:N3	1:CA:883:C:O2'	2.33	0.61
25:DA:1789:A:H5'	27:DD:221:VAL:HG12	1.82	0.61
41:DV:5:VAL:HG11	41:DV:57:VAL:HG21	1.82	0.61
39:BT:11:GLU:OE1	39:BT:57:PHE:HB3	2.00	0.61
1:CA:17:U:H2'	1:CA:18:C:C6	2.36	0.61
33:BN:55:VAL:HG22	33:BN:126:PRO:HA	1.82	0.61
25:DA:2439:A:H5''	25:DA:2439:A:C8	2.35	0.61
22:AY:25:ALA:O	22:AY:30:VAL:HG21	1.99	0.61
25:BA:652(F):G:O6	25:BA:652(S):C:N3	2.33	0.61
25:DA:994:C:O2'	25:DA:996:A:OP1	2.09	0.61
44:BY:51:VAL:HG22	44:BY:58:GLY:HA3	1.81	0.61
1:CA:1348:U:H2'	1:CA:1349:A:H8	1.66	0.61
25:DA:2364:C:H4'	46:D0:56:ASP:OD2	2.00	0.61
25:BA:593:G:H4'	54:B8:4:MET:HE2	1.82	0.61
2:AB:18:GLY:HA2	2:AB:42:ILE:HG13	1.82	0.61
4:CD:19:LEU:H	4:CD:19:LEU:HD22	1.66	0.61
35:DP:38:GLN:O	35:DP:39:LYS:HB3	2.00	0.61
25:BA:1019:U:H3	25:BA:1142(A):A:H62	1.48	0.61
45:BZ:82:ARG:HH21	45:BZ:82:ARG:HB3	1.65	0.61
1:AA:384:G:H2'	1:AA:385:C:H6	1.64	0.61
11:CK:20:TYR:HB2	11:CK:31:THR:HG22	1.83	0.61
25:DA:708:C:H42	25:DA:723:G:H1	1.47	0.61
25:BA:1858:G:O2'	25:BA:1884:A:N6	2.33	0.61
1:AA:414:A:H2'	1:AA:415:A:C8	2.34	0.61
1:AA:262:A:H2'	1:AA:263:A:C8	2.36	0.61
17:CQ:96:GLU:O	17:CQ:97:SER:HB3	2.00	0.61
17:CQ:13:ASP:HB2	58:CQ:202:HOH:O	2.00	0.61
25:BA:2286:A:OP1	52:B6:29:ASN:ND2	2.29	0.61
25:DA:1449:A:O2'	25:DA:1529:G:N2	2.28	0.61
25:DA:826:U:C4'	35:DP:55:ARG:HB2	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:736:C:H2'	1:AA:737:A:C8	2.35	0.61
31:DH:54:ARG:NE	31:DH:57:ASP:OD1	2.34	0.61
3:CC:131:ARG:H	3:CC:134:ILE:HD12	1.64	0.61
25:BA:184:C:H2'	25:BA:185:U:H6	1.64	0.61
1:CA:1049:U:H4'	1:CA:1050:G:C5'	2.31	0.61
44:BY:11:ASP:N	44:BY:11:ASP:OD1	2.31	0.61
25:BA:603:A:H4'	25:BA:604:G:H5'	1.83	0.61
25:BA:54:G:O2'	53:B7:35:ARG:HD3	2.00	0.61
1:CA:192:U:H2'	1:CA:193:C:H6	1.65	0.61
5:AE:33:VAL:HG21	5:AE:109:ILE:HA	1.81	0.61
1:AA:750:G:N3	15:AO:23:GLY:HA3	2.15	0.61
14:CN:37:PHE:HB3	14:CN:39:LEU:HD12	1.81	0.61
16:CP:15:PRO:O	16:CP:16:HIS:ND1	2.33	0.61
26:DB:20:C:H42	26:DB:63:G:H1	1.48	0.61
25:BA:652(H):C:N4	25:BA:652(Q):G:H1	1.98	0.61
2:CB:102:LEU:HD23	2:CB:182:ILE:HD12	1.82	0.61
2:AB:21:ARG:HD3	2:AB:21:ARG:N	2.14	0.61
54:B8:34:TRP:CE2	54:B8:35:GLN:HB3	2.36	0.61
17:AQ:86:GLU:HG3	17:AQ:90:ILE:HD11	1.81	0.61
1:AA:14:U:H5	58:AA:2112:HOH:O	1.83	0.61
16:AP:19:ILE:HG22	16:AP:36:ILE:HG13	1.82	0.61
51:B5:36:CYS:O	51:B5:37:LYS:HD3	2.00	0.61
38:BS:10:ARG:O	38:BS:14:VAL:HG13	2.00	0.61
22:AY:34:SER:CB	25:BA:2602:A:H61	2.14	0.61
1:AA:438:G:H4'	4:AD:123:HIS:CD2	2.35	0.61
31:BH:3:ARG:HB3	31:BH:6:ARG:HG2	1.82	0.61
28:DE:47:VAL:HG21	28:DE:86:PRO:HD2	1.83	0.61
1:CA:1445:C:O2'	1:CA:1447:A:N6	2.34	0.61
31:BH:83:TYR:CE1	31:BH:138:LYS:HD2	2.36	0.61
1:AA:1144:G:H21	1:AA:1146:A:H62	1.49	0.61
1:CA:390:C:O3'	16:CP:28:ARG:NH2	2.33	0.61
1:AA:153:C:N4	1:AA:169:C:H42	1.99	0.61
1:AA:285:G:N7	58:AA:2056:HOH:O	2.31	0.61
2:CB:187:LEU:HA	2:CB:201:ILE:HB	1.82	0.61
20:AT:73:HIS:HB3	20:AT:74:LYS:HE3	1.83	0.61
1:CA:1107:C:C4	1:CA:1108:G:C8	2.88	0.61
1:CA:590:C:O2	1:CA:649:G:N2	2.21	0.61
13:AM:69:GLU:OE1	13:AM:70:LEU:N	2.32	0.61
3:AC:111:LEU:HD11	3:AC:144:SER:O	1.99	0.61
1:AA:278:G:OP2	17:AQ:41:LYS:HE2	2.01	0.61
1:CA:954:G:H21	1:CA:1227:A:H62	1.49	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BS:25:ARG:NH1	38:BS:42:ASP:OD2	2.33	0.61
25:BA:607:U:OP1	29:BF:102:PRO:HA	2.01	0.61
7:AG:111:ARG:NH2	7:AG:126:ASP:OD1	2.33	0.61
1:AA:865:A:H2'	1:AA:866:C:H6	1.65	0.61
1:CA:765:G:H5''	1:CA:766:A:OP1	2.01	0.61
45:DZ:157:LEU:HD21	45:DZ:163:LEU:HB2	1.83	0.61
1:AA:384:G:H2'	1:AA:385:C:C6	2.36	0.61
50:D4:18:CYS:HB3	50:D4:39:CYS:HB3	1.83	0.61
25:DA:1190:G:H5''	35:DP:32:THR:HA	1.83	0.61
25:BA:646:A:H2'	25:BA:647:G:O4'	2.00	0.61
1:AA:1016:A:H2'	1:AA:1017:G:O4'	2.01	0.61
1:AA:1242:C:H4'	1:AA:1304:G:OP1	2.01	0.61
39:DT:36:GLU:OE1	39:DT:41:ARG:NE	2.33	0.61
1:CA:922:G:H2'	1:CA:923:A:C8	2.36	0.61
26:BB:48:A:H4'	38:BS:95:HIS:HD2	1.64	0.61
25:BA:1047:G:H21	25:BA:1111:A:N6	1.98	0.61
25:DA:83:G:N2	25:DA:103:A:OP2	2.32	0.61
25:BA:1188:U:C2'	25:BA:1189:A:H5'	2.31	0.61
25:DA:89:G:H3'	25:DA:90:U:C5'	2.31	0.61
37:BR:33:ARG:NH1	37:BR:115:GLU:OE2	2.26	0.61
38:BS:15:ARG:O	38:BS:19:LYS:HG3	2.01	0.61
45:DZ:30:ASN:HB3	45:DZ:90:VAL:HB	1.83	0.61
11:CK:18:ARG:HB2	11:CK:33:THR:HG23	1.81	0.61
28:DE:12:THR:HG22	28:DE:13:ARG:H	1.66	0.61
1:CA:64:G:H4'	1:CA:65:U:H3'	1.83	0.61
25:DA:1292:U:H2'	25:DA:1293:C:C6	2.36	0.61
25:BA:1678:G:H5''	25:BA:1678:G:N3	2.15	0.61
25:DA:1028:A:N6	25:DA:1125:G:H2'	2.15	0.61
33:BN:56:ASN:H	33:BN:125:GLY:CA	2.07	0.60
1:AA:1255:G:HO2'	1:AA:1258:G:HO2'	1.35	0.60
31:BH:164:TYR:HB2	31:BH:167:GLU:HB2	1.82	0.60
25:BA:535:C:O3'	40:BU:53:ARG:NH1	2.34	0.60
38:BS:88:ASP:OD1	38:BS:90:GLY:N	2.34	0.60
27:BD:108:PRO:HB3	27:BD:143:HIS:CE1	2.36	0.60
9:AI:126:SER:HA	9:AI:127:LYS:HB2	1.82	0.60
11:AK:43:SER:OG	11:AK:67:ASP:OD1	2.19	0.60
54:D8:6:THR:HG22	54:D8:63:PRO:HD2	1.83	0.60
27:DD:159:ALA:HB1	27:DD:198:ASN:O	2.01	0.60
30:BG:45:GLU:C	30:BG:47:LYS:H	2.04	0.60
1:CA:1281:U:H3'	1:CA:1281:U:H6	1.65	0.60
5:AE:75:THR:OG1	5:AE:76:ILE:N	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:166:G:H2'	1:AA:167:G:C8	2.32	0.60
1:CA:501:C:H2'	1:CA:502:G:C8	2.36	0.60
25:DA:2313:C:H2'	25:DA:2314:C:C6	2.35	0.60
1:AA:221:C:H2'	1:AA:222:U:H6	1.66	0.60
1:AA:612:C:O2	1:AA:629:G:N2	2.34	0.60
1:CA:939:G:H1	1:CA:1344:C:H42	1.49	0.60
42:DW:36:LEU:HD13	42:DW:48:ALA:HA	1.83	0.60
1:CA:1170:A:C2	1:CA:1171:G:H1'	2.36	0.60
44:BY:23:ARG:HB2	44:BY:23:ARG:HH11	1.65	0.60
4:CD:43:HIS:HA	4:CD:46:LYS:HD2	1.83	0.60
12:AL:70:ILE:HD13	12:AL:77:LEU:HD12	1.83	0.60
25:DA:212:G:H2'	25:DA:213:A:O4'	2.00	0.60
28:BE:116:VAL:HG13	28:BE:122:PHE:CD2	2.36	0.60
25:BA:1040:C:H2'	25:BA:1041:C:O4'	2.01	0.60
25:DA:1331:A:O2'	25:DA:1332:G:H8	1.85	0.60
25:DA:2478:A:H5'	55:D9:31:LYS:HD2	1.83	0.60
31:DH:20:ALA:HB1	31:DH:21:PRO:HD2	1.83	0.60
50:D4:14:ILE:HG22	50:D4:33:VAL:HG22	1.82	0.60
1:AA:958:A:N3	1:AA:985:C:O2'	2.34	0.60
1:AA:129(A):G:N1	1:AA:189(D):C:O2	2.34	0.60
25:DA:1790:C:H5''	25:DA:1791:A:OP1	2.01	0.60
1:CA:437:U:H5''	4:CD:155:LEU:HD11	1.81	0.60
1:AA:1252:A:H2'	1:AA:1253:G:O4'	2.00	0.60
50:D4:36:CYS:SG	50:D4:37:SER:N	2.74	0.60
2:CB:80:ILE:HD13	2:CB:212:GLN:HG2	1.83	0.60
25:BA:729:G:C6	27:BD:208:LYS:HB2	2.37	0.60
43:BX:57:LEU:CD1	43:BX:78:LYS:HG2	2.32	0.60
32:BI:107:VAL:HG12	32:BI:108:THR:N	2.17	0.60
1:CA:1170:A:N6	1:CA:1171:G:N3	2.50	0.60
25:BA:1797:C:H4'	27:BD:257:LEU:O	2.01	0.60
41:DV:50:PRO:HG2	41:DV:51:VAL:HG12	1.83	0.60
2:AB:111:ARG:HG2	2:AB:111:ARG:HH11	1.65	0.60
4:AD:17:VAL:HG11	4:AD:197:PRO:HG3	1.82	0.60
25:DA:1358:G:O2'	25:DA:1359:A:H5''	2.00	0.60
1:CA:450:G:H4'	16:CP:41:PRO:HB2	1.82	0.60
2:CB:19:HIS:NE2	2:CB:206:ASP:HB2	2.15	0.60
20:AT:39:LYS:O	20:AT:42:GLN:HB3	2.01	0.60
6:CF:62:TRP:CH2	6:CF:64:GLN:HB2	2.37	0.60
16:AP:68:ASP:OD1	16:AP:71:ARG:NH1	2.33	0.60
1:AA:323:U:H5'	20:AT:23:ARG:HB2	1.82	0.60
25:DA:581:C:H2'	25:DA:582:G:H8	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:27:LEU:HD22	39:DT:1:MET:HE3	1.82	0.60
1:AA:517:G:H5'	1:AA:519:C:C2	2.37	0.60
1:CA:1227:A:H3'	1:CA:1227:A:C8	2.37	0.60
1:AA:147:G:H2'	1:AA:148:G:C8	2.37	0.60
25:BA:51:G:O2'	25:BA:119:A:N1	2.33	0.60
31:BH:107:VAL:HG21	31:BH:152:ARG:HB2	1.84	0.60
25:DA:1221(A):C:H42	25:DA:1228:G:H1	1.49	0.60
29:BF:116:ASP:OD2	35:BP:1:MET:HB2	2.02	0.60
25:BA:31:C:OP1	58:BA:5383:HOH:O	2.17	0.60
25:DA:1427:A:H4'	25:DA:1428:C:O5'	2.01	0.60
25:DA:1169:G:H1	25:DA:1180:C:H42	1.49	0.60
1:CA:869:G:N7	58:CA:1967:HOH:O	2.32	0.60
25:DA:1818:U:H2'	27:DD:157:ARG:HG3	1.83	0.60
25:DA:370:G:OP1	25:DA:403:U:N3	2.31	0.60
34:DO:88:ASN:H	34:DO:88:ASN:HD22	1.48	0.60
25:BA:1021:A:H3'	25:BA:1021:A:C8	2.36	0.60
25:BA:2467:C:OP1	55:B9:6:SER:OG	2.10	0.60
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.36	0.60
25:BA:2313:C:H4'	30:BG:91:ARG:HG3	1.84	0.60
20:CT:38:LYS:HG3	20:CT:41:ILE:HD11	1.83	0.60
25:BA:1262:A:N3	51:B5:10:LYS:HE3	2.16	0.60
1:CA:1201:A:H4'	1:CA:1202:G:O5'	2.02	0.60
22:AY:50:GLU:HA	22:AY:53:LYS:HB2	1.81	0.60
1:AA:429:U:H1'	1:AA:430:A:H5''	1.84	0.60
5:CE:36:ASP:HB2	5:CE:38:GLN:H	1.67	0.60
45:DZ:53:ILE:HG22	45:DZ:71:VAL:HB	1.82	0.60
23:CV:40:C:H2'	23:CV:41:C:C6	2.36	0.60
25:BA:2638:G:OP2	28:BE:82:ARG:NH2	2.34	0.60
1:CA:1344:C:H4'	9:CI:120:ARG:HB3	1.84	0.60
25:BA:747:U:O2	25:BA:2014:A:H1'	2.02	0.60
4:CD:79:PHE:O	4:CD:82:ALA:HB3	2.02	0.60
10:AJ:50:ILE:H	14:AN:41:ARG:HE	1.48	0.60
25:DA:976:C:H5'	25:DA:1156:A:N6	2.16	0.60
25:DA:2563:U:H4'	34:DO:28:SER:HA	1.83	0.60
43:BX:12:VAL:HG12	43:BX:17:ALA:HB2	1.83	0.60
1:AA:1077:G:N2	1:AA:1080:A:OP2	2.35	0.60
4:AD:129:ASN:OD1	4:AD:145:GLU:N	2.25	0.60
25:DA:2705:A:OP2	58:DA:4356:HOH:O	2.15	0.60
22:AY:32:LYS:HA	25:BA:2573:C:H41	1.66	0.60
25:DA:154(A):C:N4	25:DA:171:G:H1	1.98	0.60
25:DA:1496:A:N3	25:DA:1577:C:O2'	2.30	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DF:11:VAL:HG22	29:DF:125:LEU:HB2	1.83	0.60
10:AJ:49:VAL:HG23	14:AN:41:ARG:HG2	1.83	0.60
33:BN:52:VAL:HG12	33:BN:120:LEU:HD23	1.83	0.60
25:BA:2527:C:H5'	55:B9:30:PRO:HB2	1.84	0.60
10:CJ:11:PHE:CE2	10:CJ:67:THR:HG22	2.36	0.60
1:CA:1205:U:H4'	3:CC:195:VAL:HG21	1.83	0.60
25:BA:795:C:H2'	25:BA:796:C:C6	2.37	0.60
25:DA:1247:A:OP1	29:DF:95:ARG:NH2	2.35	0.60
22:AY:21:ARG:HG3	22:AY:35:THR:H	1.66	0.60
1:AA:254:G:H4'	17:AQ:18:THR:HG21	1.83	0.60
25:BA:1109:C:H5	25:BA:1110:G:C6	2.20	0.60
25:BA:1531:C:H42	25:BA:1538:G:H1	1.50	0.60
41:DV:60:GLU:HB2	41:DV:97:LYS:HE2	1.82	0.60
41:DV:98:GLU:OE1	41:DV:100:ARG:NH1	2.35	0.60
25:BA:579:G:H2'	25:BA:580:C:C6	2.37	0.60
37:BR:103:ARG:HG2	37:BR:103:ARG:HH11	1.66	0.60
16:CP:76:GLN:NE2	16:CP:76:GLN:O	2.31	0.60
40:BU:79:PHE:CZ	40:BU:83:LEU:HD21	2.37	0.60
31:DH:149:ARG:HD2	31:DH:164:TYR:CE1	2.37	0.60
17:AQ:48:GLU:O	17:AQ:50:LYS:N	2.35	0.60
6:AF:27:GLN:O	6:AF:31:GLU:HG3	2.02	0.59
7:CG:18:TYR:HD2	7:CG:59:LEU:HD22	1.65	0.59
7:CG:111:ARG:HB2	7:CG:113:GLU:OE1	2.02	0.59
25:BA:697:C:H2'	25:BA:698:C:H6	1.67	0.59
25:DA:875:G:O6	25:DA:902:C:N4	2.25	0.59
1:CA:715:A:H2'	1:CA:716:A:C8	2.37	0.59
25:BA:1106:G:H8	25:BA:1106:G:O5'	1.84	0.59
1:AA:1182:G:H4'	1:AA:1183:A:C5'	2.32	0.59
9:CI:17:VAL:HG12	9:CI:63:ILE:HG12	1.84	0.59
25:BA:1952:A:OP1	34:BO:44:LYS:NZ	2.30	0.59
13:AM:65:LYS:HD2	13:AM:69:GLU:HG3	1.84	0.59
25:DA:608:A:H2'	25:DA:609:A:C8	2.37	0.59
29:DF:53:THR:HG22	29:DF:56:GLU:OE2	2.02	0.59
38:BS:53:SER:OG	38:BS:54:LEU:N	2.35	0.59
15:AO:71:GLN:HG2	15:AO:78:TYR:CG	2.37	0.59
1:CA:1279:A:O2'	1:CA:1281:U:OP2	2.12	0.59
38:BS:99:LYS:O	38:BS:103:GLU:HG3	2.02	0.59
25:BA:652(Q):G:H2'	25:BA:652(R):C:H5'	1.82	0.59
1:AA:343:U:H1'	1:AA:344:A:OP1	2.02	0.59
25:DA:1607:C:H4'	25:DA:1608:A:O5'	2.02	0.59
25:DA:90:U:O2'	25:DA:92:A:C8	2.56	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:414:A:H2'	1:AA:415:A:H8	1.67	0.59
27:DD:108:PRO:HB3	27:DD:143:HIS:CE1	2.38	0.59
30:DG:106:LEU:HA	30:DG:110:ALA:HB3	1.83	0.59
53:D7:12:ARG:NH2	53:D7:44:PRO:HB3	2.17	0.59
25:DA:918:A:H5''	26:DB:98:G:O2'	2.03	0.59
30:DG:109:VAL:HG11	30:DG:142:PRO:HB3	1.85	0.59
18:CR:44:LEU:HD21	18:CR:70:ILE:HG21	1.85	0.59
25:DA:1803:A:H4'	27:DD:259:THR:HG23	1.83	0.59
50:D4:16:CYS:HB2	50:D4:20:ASN:O	2.02	0.59
25:BA:2206:G:H5'	25:BA:2207:G:N7	2.17	0.59
1:AA:447:G:H2'	1:AA:485:G:N2	2.18	0.59
15:AO:39:LEU:O	15:AO:42:HIS:N	2.35	0.59
13:AM:49:THR:O	13:AM:51:ALA:N	2.35	0.59
25:DA:2647:U:H2'	25:DA:2648:C:H6	1.68	0.59
2:AB:15:VAL:HG23	2:AB:209:ARG:HD3	1.83	0.59
1:AA:1223:C:H5''	1:AA:1224:G:H5''	1.85	0.59
25:DA:1283:G:H22	25:DA:1286:A:H5'	1.66	0.59
25:BA:919:G:N2	25:BA:2269:A:OP2	2.36	0.59
48:B2:63:VAL:O	48:B2:66:GLU:HB2	2.02	0.59
37:DR:79:LEU:HA	37:DR:83:ILE:HD12	1.85	0.59
38:DS:36:TYR:HA	38:DS:52:SER:HB3	1.85	0.59
30:DG:38:VAL:HG22	30:DG:93:THR:HG23	1.85	0.59
28:DE:38:THR:O	28:DE:42:ASP:N	2.30	0.59
4:AD:9:CYS:SG	4:AD:12:CYS:SG	3.01	0.59
1:CA:1492:A:H3'	25:DA:1913:A:H61	1.68	0.59
15:AO:3:ILE:H	15:AO:3:ILE:HD13	1.67	0.59
25:BA:1803:A:H4'	27:BD:259:THR:CG2	2.33	0.59
25:DA:1329:U:H5''	25:DA:1330:C:H5	1.66	0.59
37:DR:24:GLN:OE1	37:DR:36:THR:HG21	2.03	0.59
1:CA:986:A:H1'	19:CS:54:GLY:O	2.02	0.59
25:DA:1379:A:H4'	25:DA:1380:G:OP2	2.02	0.59
11:CK:85:ARG:HE	11:CK:111:ASP:HB3	1.68	0.59
25:DA:2014:A:H4'	42:DW:92:ARG:NH2	2.17	0.59
37:DR:72:ASP:OD1	37:DR:75:LEU:HB2	2.02	0.59
25:DA:1593:G:H2'	25:DA:1594:G:C8	2.37	0.59
5:CE:8:GLU:HB3	5:CE:34:VAL:HG23	1.84	0.59
25:DA:141:A:C8	25:DA:1408:C:O2'	2.52	0.59
33:DN:37:LYS:HG3	33:DN:42:TRP:CE2	2.37	0.59
25:DA:528:A:C2	25:DA:2043:C:H4'	2.38	0.59
41:DV:58:VAL:HB	41:DV:97:LYS:HB2	1.85	0.59
25:DA:1237:A:OP1	58:DA:4032:HOH:O	2.16	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:12:C:H2'	46:D0:73:GLY:HA3	1.83	0.59
41:BV:65:GLY:HA3	41:BV:91:TYR:CZ	2.37	0.59
44:DY:2:ARG:O	44:DY:2:ARG:HG3	2.00	0.59
26:DB:44:G:OP1	30:DG:98:ARG:NH2	2.35	0.59
25:DA:1227:G:OP2	40:DU:16:LYS:NZ	2.36	0.59
26:DB:52:A:O2'	26:DB:53:A:H2	1.81	0.59
25:BA:2287:A:H62	25:BA:2344:U:H3	1.50	0.59
8:AH:20:TYR:CE2	8:AH:75:ARG:HG2	2.38	0.59
45:BZ:44:PHE:CE2	45:BZ:86:VAL:HG11	2.37	0.59
35:DP:91:PHE:O	35:DP:121:LYS:NZ	2.35	0.59
12:AL:83:VAL:HG11	12:AL:100:ILE:HG12	1.83	0.59
1:AA:828:A:H2'	1:AA:829:G:O4'	2.03	0.59
25:DA:311:A:C6	25:DA:328:U:C4	2.90	0.59
13:AM:15:VAL:O	13:AM:19:LEU:HD23	2.02	0.59
25:BA:2766:G:H5''	25:BA:2767:C:OP2	2.01	0.59
36:DQ:31:ASP:O	36:DQ:134:ARG:HG2	2.03	0.59
42:DW:79:GLY:HA3	42:DW:100:THR:HG22	1.84	0.59
3:AC:5:ILE:HG23	3:AC:6:HIS:H	1.66	0.59
20:CT:69:GLY:O	20:CT:73:HIS:CD2	2.55	0.59
55:D9:10:ILE:HD12	55:D9:32:HIS:HA	1.85	0.59
1:CA:1320:C:H2'	1:CA:1321:C:O4'	2.03	0.59
25:DA:1210:A:H5'	25:DA:1210:A:C8	2.32	0.59
1:AA:92:C:O2'	1:AA:93:G:H5'	2.02	0.59
17:AQ:43:LEU:C	17:AQ:69:LYS:HZ3	2.06	0.59
4:CD:26:CYS:HA	4:CD:31:CYS:HB3	1.85	0.59
1:CA:40:C:H42	1:CA:402:G:H1	1.50	0.59
25:DA:1920:C:OP1	58:DA:3708:HOH:O	2.17	0.59
25:BA:1799:G:O2'	25:BA:1800:C:OP2	2.18	0.59
45:DZ:157:LEU:HD23	45:DZ:161:VAL:HG13	1.83	0.59
25:BA:1453:U:O2'	25:BA:1455:G:N7	2.33	0.59
25:BA:1693:U:O2'	25:BA:1695:G:O6	2.21	0.59
25:BA:1017:G:N7	58:BA:4184:HOH:O	2.31	0.59
33:DN:123:TYR:HH	33:DN:130:HIS:CE1	2.19	0.59
25:DA:644:A:H4'	25:DA:645:C:C5	2.37	0.59
25:DA:800:A:OP1	25:DA:800:A:H8	1.86	0.59
45:BZ:150:LEU:O	45:BZ:171:ILE:HG13	2.03	0.59
18:AR:36:ASN:O	18:AR:40:LEU:HG	2.03	0.59
1:CA:384:G:H2'	1:CA:385:C:C6	2.38	0.59
35:DP:39:LYS:HB2	35:DP:45:LEU:CD1	2.31	0.59
25:BA:2344:U:O2'	52:B6:36:LEU:HD22	2.03	0.59
40:DU:58:ARG:HA	40:DU:61:TRP:CE3	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:534:U:H5'	40:BU:42:ALA:HB1	1.85	0.59
25:DA:1856:G:H2'	25:DA:1857:G:H5'	1.85	0.59
28:DE:52:LEU:HB2	28:DE:76:ARG:HG2	1.84	0.59
27:BD:147:LEU:CD1	27:BD:155:LEU:HD11	2.32	0.59
25:DA:2390:U:O2'	25:DA:2391:G:H5'	2.02	0.59
16:AP:20:VAL:HG21	16:AP:32:TYR:CD1	2.38	0.59
22:AY:30:VAL:HG22	25:BA:2602:A:C6	2.38	0.59
40:BU:76:TYR:HH	40:BU:92:ARG:HH11	1.51	0.59
29:BF:184:TYR:CE2	29:BF:188:ARG:HD2	2.38	0.59
1:CA:129(A):G:N2	1:CA:189(H):G:C5	2.71	0.59
25:DA:288:C:H2'	25:DA:289:A:C8	2.37	0.59
27:BD:132:PRO:HG3	27:BD:190:TYR:CE1	2.38	0.59
1:AA:586:C:H2'	1:AA:587:G:H5'	1.85	0.59
26:DB:17:C:N4	26:DB:109:C:N3	2.51	0.59
25:DA:1593:G:H2'	25:DA:1594:G:H8	1.67	0.59
28:BE:78:LEU:O	28:BE:79:ARG:HG2	2.03	0.59
4:CD:105:VAL:HG21	4:CD:126:ILE:HD12	1.85	0.59
37:DR:19:ALA:O	37:DR:23:ASN:ND2	2.29	0.59
25:DA:1354:A:H2'	25:DA:1355:G:O4'	2.02	0.59
1:AA:299:G:H2'	1:AA:300:A:C8	2.37	0.59
25:DA:1545:A:H2'	25:DA:1546:C:O4'	2.02	0.59
12:CL:6:THR:HG23	12:CL:9:GLN:HB2	1.84	0.59
7:CG:82:GLY:HA2	24:CX:1:A:C8	2.37	0.59
11:AK:41:THR:HG21	11:AK:71:LYS:HB3	1.85	0.59
25:DA:2009:G:H1'	37:DR:107:ASP:O	2.03	0.59
37:DR:81:ASP:O	37:DR:85:PRO:HG3	2.02	0.59
26:DB:113:G:H2'	26:DB:114:C:C6	2.38	0.59
32:DI:75:LEU:HD23	32:DI:105:HIS:CD2	2.38	0.58
22:AY:38:HIS:NE2	22:AY:80:GLN:HG3	2.18	0.58
25:DA:784:A:H5'	25:DA:785:G:OP1	2.02	0.58
4:CD:22:LYS:HB2	4:CD:26:CYS:SG	2.43	0.58
2:CB:165:VAL:HG23	2:CB:166:ASP:H	1.67	0.58
27:BD:131:LEU:HB2	27:BD:136:ILE:CD1	2.33	0.58
35:BP:38:GLN:HA	35:BP:41:ARG:HG2	1.85	0.58
25:DA:2689:U:P	25:DA:2719:G:H22	2.24	0.58
1:CA:1492:A:H2'	25:DA:1913:A:N1	2.17	0.58
31:BH:94:TYR:CE2	31:BH:160:LYS:HG2	2.38	0.58
20:AT:64:ASP:OD2	20:AT:81:LYS:NZ	2.34	0.58
30:DG:106:LEU:O	30:DG:111:LEU:N	2.26	0.58
1:CA:1060:C:O2'	1:CA:1061:G:H5'	2.03	0.58
35:BP:88:LEU:HD11	35:BP:114:ILE:HD12	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:22:HIS:O	11:CK:28:THR:HA	2.03	0.58
8:CH:38:ILE:HD12	8:CH:118:VAL:HG12	1.85	0.58
1:CA:857:C:H2'	1:CA:858:G:O4'	2.03	0.58
1:AA:176:C:OP1	20:AT:29:LYS:NZ	2.35	0.58
47:B1:21:ARG:HH11	47:B1:21:ARG:HG2	1.67	0.58
14:AN:24:CYS:HB3	14:AN:27:CYS:O	2.03	0.58
45:DZ:48:PHE:HE2	45:DZ:71:VAL:HG11	1.68	0.58
2:CB:178:ARG:HH22	8:CH:68:ARG:HH12	1.51	0.58
25:DA:1857:G:H2'	25:DA:1858:G:O4'	2.04	0.58
37:DR:29:LEU:HB3	37:DR:75:LEU:HD11	1.84	0.58
46:B0:40:GLN:OE1	46:B0:44:ARG:N	2.33	0.58
32:DI:5:LEU:HD11	32:DI:19:VAL:HG22	1.84	0.58
20:AT:87:LYS:O	20:AT:91:LEU:HG	2.03	0.58
1:AA:148:G:C2	1:AA:149:A:N7	2.71	0.58
25:DA:1266:G:O2'	25:DA:2012:G:O6	2.18	0.58
32:BI:130:TYR:HB3	32:BI:138:ILE:HB	1.85	0.58
25:BA:763:G:O2'	25:BA:764:A:H3'	2.03	0.58
28:DE:143:ASN:HD22	28:DE:147:PRO:CD	2.15	0.58
25:DA:2572:A:OP1	25:DA:2574:G:O2'	2.17	0.58
28:DE:33:VAL:HG11	28:DE:36:ARG:HH21	1.68	0.58
1:CA:1095:U:OP1	1:CA:1108:G:N2	2.29	0.58
25:DA:185:U:H4'	25:DA:218:A:H4'	1.84	0.58
17:AQ:76:LEU:HD11	17:AQ:78:GLU:O	2.03	0.58
25:BA:286:C:H2'	25:BA:287:C:C6	2.39	0.58
25:BA:568:U:OP1	35:BP:36:LYS:HE3	2.03	0.58
1:AA:691:G:H2'	1:AA:692:U:C6	2.38	0.58
28:BE:60:ASN:OD1	28:BE:63:LEU:HB2	2.04	0.58
27:DD:144:ALA:HB3	27:DD:192:THR:HG23	1.84	0.58
47:D1:5:CYS:SG	47:D1:62:VAL:HG23	2.43	0.58
25:BA:676:A:H2	25:BA:802:A:H61	1.51	0.58
25:BA:2573:C:H5''	25:BA:2574:G:H5''	1.85	0.58
1:AA:664:G:N2	1:AA:741:G:H1	1.98	0.58
1:AA:832:C:O2'	1:AA:833:U:H6	1.86	0.58
1:CA:989:C:H1'	1:CA:1016:A:H2	1.68	0.58
1:CA:980:C:OP1	58:CA:2053:HOH:O	2.17	0.58
1:AA:1015:A:H2'	1:AA:1016:A:C8	2.38	0.58
4:CD:155:LEU:HD23	4:CD:156:GLU:N	2.18	0.58
3:AC:6:HIS:CD2	3:AC:7:PRO:HD2	2.39	0.58
4:CD:71:SER:O	4:CD:75:PHE:N	2.27	0.58
25:DA:2275:C:H5'	25:DA:2275:C:H6	1.68	0.58
36:DQ:21:THR:HG21	36:DQ:101:ARG:HB2	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DD:24:ILE:HD13	27:DD:84:TYR:HB2	1.85	0.58
1:AA:1397:C:OP2	5:AE:24:ARG:NH2	2.36	0.58
6:CF:81:ILE:HD11	27:DD:125:ILE:HB	1.85	0.58
25:DA:34:C:O2'	25:DA:35:G:OP1	2.18	0.58
3:AC:114:PRO:O	3:AC:118:GLN:NE2	2.24	0.58
2:CB:127:ILE:HG12	2:CB:128:GLU:H	1.67	0.58
25:BA:885:C:N4	25:BA:890:A:C6	2.43	0.58
35:DP:38:GLN:HA	35:DP:41:ARG:HG2	1.86	0.58
25:BA:848:G:C4	25:BA:933:A:H8	2.22	0.58
25:BA:1435:G:H1	25:BA:1557:C:N4	1.98	0.58
1:AA:342:C:C4	1:AA:343:U:C5	2.90	0.58
45:BZ:144:LEU:HD23	45:BZ:174:VAL:HG23	1.85	0.58
4:CD:38:TYR:OH	4:CD:45:GLN:NE2	2.34	0.58
2:AB:21:ARG:HH12	2:AB:23:ARG:HB2	1.69	0.58
1:AA:129(A):G:O6	1:AA:189(D):C:C2	2.57	0.58
44:BY:23:ARG:HG2	44:BY:42:VAL:HG22	1.84	0.58
18:CR:74:ARG:HE	18:CR:81:PHE:HA	1.69	0.58
30:DG:23:PHE:HB2	30:DG:25:TYR:CZ	2.38	0.58
31:DH:11:VAL:HG13	31:DH:15:VAL:HG13	1.86	0.58
25:BA:2591:C:P	27:BD:239:ARG:HG2	2.44	0.58
33:BN:14:VAL:HG11	33:BN:138:LEU:HD12	1.84	0.58
27:BD:101:GLU:HG2	27:BD:103:ARG:HD3	1.85	0.58
45:DZ:9:TYR:HE2	45:DZ:35:ARG:HG3	1.68	0.58
42:DW:26:GLY:H	42:DW:71:VAL:HG12	1.67	0.58
25:BA:1329:U:H5''	25:BA:1330:C:H5	1.68	0.58
1:CA:1272:G:H8	1:CA:1272:G:H5''	1.69	0.58
25:DA:2286:A:OP1	52:D6:29:ASN:ND2	2.37	0.58
25:BA:1434:A:H2'	25:BA:1435:G:C8	2.38	0.58
1:CA:401:C:O2'	1:CA:621:A:N3	2.33	0.58
13:CM:16:ASP:N	13:CM:16:ASP:OD2	2.33	0.58
4:CD:127:THR:HG23	4:CD:147:ALA:HB3	1.84	0.58
7:AG:150:ALA:HB2	11:AK:50:TYR:HE1	1.67	0.58
25:DA:2611:U:H2'	51:D5:2:ALA:O	2.02	0.58
1:CA:828:A:H2'	1:CA:829:G:O4'	2.02	0.58
36:BQ:84:GLY:O	36:BQ:85:LYS:HB2	2.04	0.58
25:BA:443:A:H1'	25:BA:1201:C:O4'	2.03	0.58
4:CD:28:SER:OG	4:CD:30:LYS:N	2.31	0.58
25:BA:1420:U:O2'	25:BA:1421:G:OP1	2.22	0.58
5:AE:87:SER:HB3	5:AE:125:SER:O	2.04	0.58
20:AT:90:GLN:HA	20:AT:93:GLU:HB2	1.84	0.58
17:AQ:67:LYS:HA	17:AQ:70:ARG:HH12	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:28:PHE:CZ	2:CB:189:ASP:HA	2.38	0.58
25:DA:2722:G:H5'	37:DR:4:LEU:HD12	1.86	0.58
40:DU:27:LEU:HA	40:DU:30:LYS:HB2	1.86	0.58
25:BA:1692:U:H2'	25:BA:1694:C:C5	2.38	0.58
27:BD:96:HIS:CD2	27:BD:102:LYS:HD3	2.39	0.58
25:BA:1825:A:OP1	27:BD:249:PRO:HD3	2.02	0.58
25:BA:2492:U:H2'	25:BA:2493:U:H6	1.69	0.58
8:AH:83:ILE:HB	8:AH:137:VAL:HG12	1.86	0.58
25:DA:2033:A:P	58:DA:4591:HOH:O	2.61	0.58
7:AG:37:ASN:O	7:AG:41:ARG:HG2	2.04	0.58
38:DS:66:ALA:HA	38:DS:69:VAL:HG12	1.85	0.58
25:BA:2454:G:H1'	58:BA:4680:HOH:O	2.03	0.58
1:AA:899:C:H2'	1:AA:900:A:C8	2.39	0.58
46:B0:38:VAL:HG21	46:B0:59:LEU:HD12	1.86	0.58
27:BD:10:THR:OG1	27:BD:13:ARG:HB2	2.04	0.58
3:CC:70:VAL:HG12	3:CC:71:ALA:H	1.69	0.58
33:BN:54:VAL:HG12	33:BN:55:VAL:H	1.68	0.58
1:CA:828:A:H5''	1:CA:859:A:C2	2.39	0.58
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.38	0.58
25:BA:95:G:O2'	48:B2:46:GLN:HA	2.03	0.58
1:CA:671:G:N2	1:CA:735:C:O2	2.36	0.58
11:AK:85:ARG:HD3	11:AK:113:PRO:HD3	1.85	0.58
14:AN:4:LYS:HA	14:AN:7:ILE:HG22	1.86	0.58
25:DA:66:C:H2'	25:DA:67:U:H6	1.69	0.58
43:BX:41:ASN:O	43:BX:45:THR:HG23	2.04	0.58
25:DA:492:A:H2'	25:DA:493:G:O4'	2.02	0.58
25:DA:72:U:OP1	58:DA:4084:HOH:O	2.16	0.58
1:AA:444:C:H2'	1:AA:445:G:H8	1.68	0.58
13:CM:105:THR:OG1	13:CM:106:ASN:OD1	2.19	0.58
32:BI:29:TYR:O	32:BI:32:PRO:HD2	2.04	0.58
1:AA:741:G:H2'	1:AA:742:G:O4'	2.04	0.58
29:DF:32:LEU:HD11	29:DF:105:VAL:HG13	1.85	0.58
25:DA:848:G:N9	25:DA:933:A:H8	2.02	0.58
1:AA:345:C:H4'	1:AA:346:G:C4	2.39	0.58
1:AA:114:U:H2'	1:AA:115:G:C8	2.39	0.58
1:CA:460:G:N1	1:CA:470:C:H5''	2.19	0.58
25:BA:1784:A:H4'	25:BA:1785:A:O5'	2.03	0.58
37:BR:33:ARG:HB2	37:BR:115:GLU:HB3	1.85	0.58
5:CE:11:ILE:HG21	5:CE:105:VAL:HA	1.84	0.58
25:DA:2872:G:O2'	25:DA:2873:A:H5'	2.03	0.58
34:BO:88:ASN:O	34:BO:91:LEU:N	2.31	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:53:ARG:HA	2:AB:56:ARG:HG2	1.85	0.58
2:AB:47:THR:O	2:AB:51:LEU:N	2.30	0.58
19:CS:31:ILE:HD11	19:CS:49:ILE:HG12	1.85	0.58
25:BA:400:G:N7	58:BA:4208:HOH:O	2.32	0.58
27:DD:274:ARG:CG	27:DD:275:LYS:HB3	2.31	0.58
32:DI:104:GLN:O	32:DI:105:HIS:ND1	2.35	0.58
22:AY:37:ILE:HG23	22:AY:75:GLN:HA	1.85	0.58
33:DN:30:ILE:HG22	33:DN:34:LEU:HD22	1.84	0.58
1:CA:728:A:H2'	1:CA:729:A:H8	1.69	0.58
25:DA:637:A:H5''	35:DP:117:GLU:HG2	1.86	0.58
25:BA:1466:G:HO2'	25:BA:1546:C:HO2'	1.24	0.58
45:BZ:30:ASN:ND2	45:BZ:90:VAL:HB	2.19	0.58
25:BA:2637:U:H5''	28:BE:82:ARG:HH21	1.69	0.58
25:BA:2207:G:O2'	25:BA:2208:A:OP1	2.20	0.58
25:BA:2755:C:C4	55:B9:19:ARG:NH1	2.72	0.58
30:BG:76:SER:HA	30:BG:83:ARG:HA	1.86	0.58
34:DO:63:VAL:HG22	34:DO:84:ALA:HA	1.86	0.58
25:BA:1418:G:OP1	25:BA:1588:C:O2'	2.21	0.58
1:CA:598:U:H4'	8:CH:94:TYR:CG	2.39	0.58
17:CQ:95:TYR:O	17:CQ:98:LEU:N	2.36	0.58
6:AF:69:GLU:O	6:AF:72:VAL:HG12	2.03	0.58
25:BA:1048:A:OP2	25:BA:1109:C:N4	2.37	0.57
1:AA:864:A:H2'	1:AA:865:A:C8	2.39	0.57
30:BG:146:TYR:O	30:BG:149:VAL:HG13	2.04	0.57
25:DA:1336:A:H2'	25:DA:1337:G:H8	1.69	0.57
1:AA:881:G:OP2	12:AL:12:ARG:NH2	2.36	0.57
25:DA:581:C:H2'	25:DA:582:G:C8	2.39	0.57
43:BX:65:ARG:HD3	43:BX:67:GLY:O	2.04	0.57
17:CQ:58:GLU:OE1	17:CQ:75:ARG:NH2	2.37	0.57
25:DA:1224:C:O2'	41:DV:86:GLY:N	2.34	0.57
1:CA:32:A:C2	1:CA:33:A:C4	2.92	0.57
28:BE:174:ASP:OD2	28:BE:175:VAL:N	2.36	0.57
1:CA:116:A:OP2	58:CA:1977:HOH:O	2.17	0.57
17:AQ:22:LEU:HD11	17:AQ:39:SER:HB3	1.86	0.57
25:DA:2425:A:H4'	25:DA:2426:A:H5''	1.86	0.57
30:DG:14:GLU:O	30:DG:18:GLU:HB3	2.03	0.57
26:DB:53:A:H2'	26:DB:54:G:O4'	2.04	0.57
40:BU:34:LYS:O	40:BU:38:THR:HB	2.04	0.57
16:AP:43:LYS:HA	16:AP:48:TRP:CD1	2.39	0.57
25:BA:1153:C:OP1	40:BU:92:ARG:NH1	2.36	0.57
10:AJ:8:LEU:HA	10:AJ:95:GLU:O	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BT:55:ASN:H	39:BT:59:THR:HG22	1.69	0.57
7:AG:26:PHE:CE2	7:AG:30:ILE:HD11	2.38	0.57
1:AA:1398:A:N1	5:AE:19:MET:HE1	2.19	0.57
25:BA:580:C:H2'	25:BA:581:C:C6	2.39	0.57
31:DH:88:LEU:HB2	31:DH:163:TYR:HB2	1.85	0.57
25:DA:1914:C:O2'	25:DA:1915:U:OP1	2.21	0.57
36:DQ:62:GLY:O	45:DZ:178:GLU:HG2	2.03	0.57
28:DE:23:VAL:HG21	28:DE:183:LEU:HG	1.86	0.57
1:AA:711:G:H2'	1:AA:712:A:H8	1.69	0.57
2:AB:167:PRO:HG3	2:AB:188:ALA:HB2	1.85	0.57
22:AY:32:LYS:NZ	25:BA:2573:C:OP2	2.32	0.57
22:AY:21:ARG:HA	22:AY:35:THR:H	1.69	0.57
25:DA:1359:A:N6	25:DA:1372:U:H3	2.02	0.57
39:DT:53:ARG:NH1	39:DT:60:THR:HG23	2.19	0.57
1:AA:1316:G:N2	1:AA:1318:A:H3'	2.20	0.57
25:DA:1149:G:H2'	25:DA:1150:C:H6	1.66	0.57
33:DN:104:LYS:HB2	33:DN:117:PHE:CE1	2.38	0.57
1:CA:1360:A:OP1	1:CA:1360:A:H8	1.87	0.57
26:DB:113:G:H2'	26:DB:114:C:H6	1.69	0.57
25:DA:1040:C:H2'	25:DA:1041:C:O4'	2.04	0.57
25:BA:1495:A:H2'	25:BA:1496:A:C8	2.39	0.57
1:CA:67:C:H2'	1:CA:68:G:C8	2.39	0.57
1:CA:1119:C:H2'	1:CA:1120:G:C8	2.38	0.57
25:BA:1586:A:H8	25:BA:1586:A:O5'	1.87	0.57
25:DA:857:C:H2'	25:DA:858:U:C6	2.39	0.57
25:DA:2331:G:O3'	46:D0:43:THR:HG22	2.03	0.57
29:BF:7:TYR:HB2	29:BF:22:ALA:HB3	1.86	0.57
25:BA:1250:G:N7	35:BP:18:ARG:NH2	2.51	0.57
25:BA:151:C:N4	25:BA:175:G:H1	2.00	0.57
25:BA:1143:A:OP1	33:BN:25:ARG:NH2	2.38	0.57
25:BA:1427:A:H4'	25:BA:1428:C:O5'	2.04	0.57
1:CA:983:A:H3'	1:CA:983:A:N3	2.19	0.57
1:AA:41:G:H2'	1:AA:42:G:C8	2.40	0.57
42:DW:76:VAL:HG22	42:DW:103:ILE:HG23	1.86	0.57
1:CA:365:U:H5''	1:CA:366:C:OP1	2.04	0.57
44:DY:90:LEU:HB3	44:DY:92:ASN:H	1.69	0.57
12:AL:71:PRO:O	12:AL:102:ARG:HD2	2.04	0.57
31:BH:11:VAL:HG13	31:BH:15:VAL:HG22	1.84	0.57
1:CA:833:U:H2'	1:CA:834:C:C6	2.39	0.57
1:AA:667:G:H4'	15:AO:51:HIS:CE1	2.39	0.57
4:AD:90:GLY:O	4:AD:94:LEU:HD12	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:560:U:H4'	1:CA:561:U:O5'	2.04	0.57
25:DA:993:G:C5	25:DA:994:C:H5	2.22	0.57
1:AA:1347:G:O2'	1:AA:1348:U:OP2	2.22	0.57
48:B2:16:LEU:O	48:B2:67:LYS:NZ	2.36	0.57
45:DZ:128:VAL:HG22	45:DZ:129:SER:H	1.69	0.57
1:CA:1060:C:C5	3:CC:2:GLY:HA3	2.40	0.57
3:AC:113:ALA:HA	3:AC:202:ILE:HD11	1.86	0.57
7:AG:95:ARG:HE	7:AG:99:LEU:HD11	1.69	0.57
1:AA:67:C:H2'	1:AA:68:G:C8	2.40	0.57
30:DG:105:LYS:NZ	50:D4:25:TYR:O	2.37	0.57
25:DA:1396:U:OP2	58:DA:4673:HOH:O	2.17	0.57
1:CA:656:C:O2'	15:CO:28:GLN:NE2	2.30	0.57
12:CL:33:ARG:HD3	12:CL:62:SER:HB3	1.86	0.57
7:CG:26:PHE:O	7:CG:30:ILE:HG13	2.04	0.57
25:DA:1359:A:C2	25:DA:1372:U:O4	2.58	0.57
25:DA:926:A:N7	58:DA:4231:HOH:O	2.32	0.57
8:CH:26:VAL:O	8:CH:59:LEU:N	2.37	0.57
1:AA:1226:C:N4	13:AM:104:ARG:HD3	2.19	0.57
26:DB:15:A:OP2	26:DB:69:G:N2	2.38	0.57
25:BA:1109:C:H5'	25:BA:1110:G:OP2	2.04	0.57
1:AA:563:A:N6	58:AA:2260:HOH:O	2.37	0.57
25:DA:10:G:O2'	25:DA:2801(A):A:N7	2.38	0.57
15:AO:56:LEU:O	15:AO:60:VAL:HG23	2.05	0.57
25:DA:2014:A:H5'	42:DW:94:ASP:OD2	2.04	0.57
39:DT:118:ARG:NH2	39:DT:121:ILE:HG21	2.19	0.57
25:DA:1973:G:H2'	25:DA:1974:C:C6	2.39	0.57
2:AB:115:LEU:HD13	2:AB:145:LEU:HB3	1.86	0.57
27:DD:72:LYS:HE3	27:DD:75:ILE:HD12	1.87	0.57
25:BA:370:G:H4'	25:BA:371:A:OP2	2.04	0.57
54:D8:15:LYS:HB2	58:D8:301:HOH:O	2.04	0.57
31:BH:125:VAL:HG22	31:BH:131:VAL:HG22	1.85	0.57
29:DF:130:ALA:CB	29:DF:142:TRP:HD1	2.18	0.57
50:B4:10:VAL:HG21	50:B4:29:PRO:HG3	1.87	0.57
25:DA:2592:G:H2'	25:DA:2593:U:O4'	2.03	0.57
7:AG:6:ARG:O	7:AG:6:ARG:HG3	2.04	0.57
25:DA:1589:C:H2'	25:DA:1590:U:H6	1.69	0.57
2:CB:162:ILE:O	2:CB:185:ILE:HG12	2.05	0.57
25:BA:1045:A:H1'	25:BA:1047:G:C2	2.40	0.57
1:AA:1456:G:O2'	20:AT:39:LYS:NZ	2.19	0.57
13:AM:60:VAL:HG12	13:AM:64:TRP:CZ3	2.39	0.57
25:BA:993:G:OP1	40:BU:50:ARG:NH2	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1570:A:H2'	25:BA:1571:A:C8	2.38	0.57
1:AA:711:G:H2'	1:AA:712:A:C8	2.39	0.57
1:CA:947:G:O3'	13:CM:109:THR:OG1	2.23	0.57
18:AR:53:ARG:HH21	18:AR:60:ALA:N	2.03	0.57
25:DA:520:G:H2'	25:DA:521:G:C8	2.40	0.57
8:CH:86:ILE:HG21	8:CH:133:LEU:HD13	1.85	0.57
25:BA:779:U:OP1	27:BD:49:ILE:HG13	2.05	0.57
42:BW:33:ARG:NE	42:BW:52:GLU:OE1	2.37	0.57
25:DA:657:U:H2'	25:DA:658:C:C6	2.40	0.57
25:DA:247:G:H4'	25:DA:386:G:C5	2.40	0.57
19:AS:43:GLU:N	19:AS:43:GLU:OE1	2.37	0.57
7:AG:69:VAL:HG12	7:AG:100:ALA:HA	1.85	0.57
25:DA:2074:U:H2'	25:DA:2075:U:C6	2.38	0.57
36:DQ:16:ARG:NH1	36:DQ:16:ARG:HG2	2.13	0.57
1:AA:1182:G:H4'	1:AA:1183:A:H5''	1.85	0.57
25:BA:2079:U:OP1	47:B1:21:ARG:NH2	2.37	0.57
25:DA:1187:G:H5''	41:DV:81:TYR:CE2	2.38	0.57
13:CM:91:ARG:HB3	13:CM:96:LEU:HB2	1.87	0.57
25:DA:1019:U:H3	25:DA:1142(A):A:N6	2.02	0.57
43:BX:57:LEU:O	43:BX:57:LEU:HD12	2.05	0.57
1:CA:800:G:O6	58:CA:2116:HOH:O	2.15	0.57
32:BI:68:LEU:HA	32:BI:71:ILE:HG22	1.86	0.57
1:AA:224:C:H2'	1:AA:225:C:H6	1.69	0.57
8:CH:41:ARG:HG2	8:CH:41:ARG:O	2.05	0.57
1:AA:17:U:H2'	1:AA:18:C:C6	2.39	0.57
25:DA:1225:G:H4'	41:DV:84:LYS:HG2	1.87	0.57
25:DA:619:G:H5''	25:DA:620:G:OP2	2.04	0.57
25:BA:2846:G:OP2	39:BT:54:ARG:HB2	2.05	0.57
3:AC:11:ARG:NH2	3:AC:177:THR:O	2.38	0.57
44:DY:19:LYS:HE3	44:DY:20:TYR:HE1	1.70	0.57
1:AA:939:G:H5''	7:AG:102:ARG:CZ	2.34	0.57
25:DA:2849:U:OP2	39:DT:95:ARG:NH1	2.37	0.57
1:AA:109:A:H2'	1:AA:326:G:N2	2.19	0.57
9:AI:16:ARG:HB2	9:AI:64:THR:HG22	1.87	0.57
10:CJ:49:VAL:HG22	14:CN:41:ARG:HG3	1.87	0.57
1:CA:1367:C:H5'	10:CJ:60:ARG:NH1	2.20	0.57
14:CN:32:SER:HB3	14:CN:41:ARG:HB3	1.87	0.57
36:DQ:126:PRO:HG2	36:DQ:127:ILE:HG23	1.87	0.57
25:DA:1336:A:H2'	25:DA:1337:G:C8	2.39	0.57
1:AA:828:A:OP1	1:AA:828:A:H4'	2.05	0.57
25:BA:721:C:H2'	25:BA:722:A:H8	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:943:U:H2'	1:AA:944:G:H5'	1.86	0.57
44:BY:83:THR:OG1	44:BY:84:ARG:N	2.38	0.57
25:DA:2394:C:OP2	54:D8:30:ARG:NH1	2.38	0.57
1:AA:996:A:H8	1:AA:996:A:O5'	1.87	0.57
44:DY:14:LEU:HG	44:DY:15:VAL:N	2.20	0.57
22:AY:21:ARG:CG	22:AY:35:THR:H	2.17	0.56
1:CA:97:G:O2'	1:CA:98:G:H8	1.87	0.56
38:DS:59:LYS:HB3	38:DS:60:GLY:HA2	1.87	0.56
20:AT:45:GLN:HA	20:AT:91:LEU:HB3	1.86	0.56
15:CO:55:GLY:HA2	15:CO:58:MET:HE3	1.85	0.56
1:CA:174:C:H2'	1:CA:175:C:C6	2.40	0.56
1:CA:820:U:H4'	1:CA:821:G:OP2	2.05	0.56
44:DY:99:CYS:CB	44:DY:102:CYS:SG	2.92	0.56
25:BA:323:G:C8	29:BF:171:PRO:HG3	2.39	0.56
25:DA:62:C:H42	25:DA:93:G:H1	1.53	0.56
25:BA:2791:C:OP2	25:BA:2791:C:H3'	2.04	0.56
4:CD:100:ARG:HH12	4:CD:137:SER:HB3	1.69	0.56
32:DI:93:THR:HG23	32:DI:119:PRO:HG3	1.87	0.56
1:AA:630:G:H2'	1:AA:631:G:O4'	2.06	0.56
1:AA:971:G:N2	1:AA:1363(A):A:OP2	2.26	0.56
4:AD:110:PHE:CD1	4:AD:110:PHE:N	2.62	0.56
25:BA:141:A:H8	25:BA:1408:C:O2'	1.73	0.56
1:AA:1346:A:N1	1:AA:1374:A:H5''	2.19	0.56
1:CA:953:G:C2	1:CA:954:G:H1'	2.39	0.56
9:AI:107:ARG:H	9:AI:107:ARG:HD3	1.70	0.56
25:DA:2364:C:H2'	25:DA:2365:G:O4'	2.04	0.56
25:DA:857:C:H2'	25:DA:858:U:H6	1.69	0.56
1:AA:192:U:H2'	1:AA:193:C:H6	1.69	0.56
4:AD:173:TRP:CD1	4:AD:174:LEU:HG	2.40	0.56
1:AA:872:A:C4	1:AA:874:G:N7	2.72	0.56
25:DA:652(A):A:H4'	25:DA:652(B):A:OP2	2.05	0.56
48:B2:65:ASN:OD1	48:B2:69:ARG:HD3	2.05	0.56
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.39	0.56
22:AY:66:SER:HB3	25:BA:2559:C:OP1	2.06	0.56
1:CA:1186:G:N2	14:CN:61:TRP:OXT	2.37	0.56
25:DA:1359:A:N1	25:DA:1372:U:C4	2.72	0.56
10:CJ:68:HIS:N	10:CJ:68:HIS:ND1	2.53	0.56
8:CH:20:TYR:HA	8:CH:65:TYR:CE2	2.40	0.56
8:AH:58:TYR:O	8:AH:59:LEU:HD23	2.05	0.56
29:BF:184:TYR:O	29:BF:188:ARG:HG3	2.05	0.56
1:AA:673:G:H2'	1:AA:674:G:C8	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:674:G:H2'	1:AA:675:A:C8	2.37	0.56
1:CA:1292:U:H2'	1:CA:1293:G:H8	1.68	0.56
47:B1:58:ILE:HD11	47:B1:60:PHE:CZ	2.41	0.56
37:DR:2:ARG:NH1	37:DR:5:LYS:O	2.37	0.56
1:CA:1270:C:O2'	1:CA:1313:U:O2'	2.11	0.56
25:DA:1429:G:H2'	25:DA:1430:C:C6	2.41	0.56
1:CA:1376:U:P	7:CG:94:ARG:HH22	2.27	0.56
1:AA:1285:A:O5'	1:AA:1285:A:H8	1.88	0.56
25:BA:796:C:H2'	25:BA:797:C:C6	2.41	0.56
27:BD:8:PRO:HB3	27:BD:14:ARG:HB2	1.86	0.56
25:BA:721:C:H2'	25:BA:722:A:C8	2.40	0.56
1:AA:730:G:H5''	1:AA:731:G:OP2	2.05	0.56
25:DA:978:G:O6	58:DA:4264:HOH:O	2.18	0.56
31:BH:98:LEU:HD12	31:BH:100:GLY:O	2.05	0.56
25:BA:197:A:OP1	58:BA:4873:HOH:O	2.18	0.56
25:DA:2300:G:H2'	25:DA:2301:C:H6	1.70	0.56
1:AA:618:C:H5''	1:AA:619:U:H5''	1.87	0.56
1:CA:1220:G:H5'	19:CS:34:TRP:O	2.05	0.56
1:CA:1226:C:H42	13:CM:104:ARG:HD2	1.70	0.56
1:AA:624:C:O3'	16:AP:10:GLY:HA2	2.05	0.56
39:BT:16:ARG:NH2	39:BT:83:ILE:O	2.38	0.56
1:CA:1251:A:H2'	1:CA:1252:A:C8	2.39	0.56
1:CA:1252:A:H2'	1:CA:1253:G:O4'	2.05	0.56
8:AH:81:HIS:N	8:AH:138:TRP:O	2.35	0.56
5:AE:41:VAL:HG23	5:AE:67:VAL:HG12	1.87	0.56
43:DX:57:LEU:HD13	43:DX:78:LYS:HG2	1.87	0.56
23:AV:47:U:H3'	23:AV:48:C:H5'	1.87	0.56
1:AA:1432:G:N7	58:AA:2083:HOH:O	2.33	0.56
1:AA:1350:A:C5	1:AA:1351:U:C4	2.93	0.56
1:CA:70:G:H1	1:CA:99:U:H3	1.50	0.56
2:CB:69:LEU:HB3	2:CB:162:ILE:HG22	1.87	0.56
31:DH:70:THR:HA	31:DH:73:ALA:HB3	1.86	0.56
25:DA:1403:C:H5''	25:DA:1471:A:C1'	2.34	0.56
25:DA:71:A:H5''	25:DA:73:A:N7	2.21	0.56
33:DN:63:THR:HG22	33:DN:66:LYS:HZ2	1.71	0.56
28:DE:135:HIS:H	28:DE:135:HIS:HD2	1.53	0.56
1:CA:10:A:H2'	1:CA:11:G:H8	1.70	0.56
25:DA:2659:G:P	31:DH:158:HIS:HE2	2.28	0.56
1:CA:126:G:OP1	1:CA:605:U:O2'	2.23	0.56
25:DA:971:C:H2'	25:DA:972:G:H5'	1.88	0.56
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:796:C:H2'	25:DA:797:C:C6	2.40	0.56
25:DA:2833:G:O2'	25:DA:2834:G:OP1	2.23	0.56
28:DE:4:ILE:HG12	28:DE:5:LEU:H	1.70	0.56
1:AA:105:G:H2'	1:AA:106:C:C6	2.40	0.56
4:AD:105:VAL:HG12	4:AD:117:ALA:HB1	1.86	0.56
50:B4:42:PHE:H	50:B4:43:TYR:HB2	1.70	0.56
1:AA:10:A:H2'	1:AA:11:G:H8	1.69	0.56
25:BA:2469:A:C2	25:BA:2482:G:C8	2.94	0.56
5:AE:122:GLU:HG2	5:AE:131:ILE:HD12	1.88	0.56
22:AY:66:SER:C	22:AY:68:GLY:H	2.08	0.56
7:AG:51:GLN:HG2	7:AG:55:GLY:HA3	1.88	0.56
25:BA:2787:C:H4'	28:BE:61:ARG:HG2	1.87	0.56
25:DA:1019:U:HO2'	25:DA:1021:A:H2	1.52	0.56
25:BA:1359:A:N6	25:BA:1372:U:H3	2.02	0.56
25:BA:1359:A:N1	25:BA:1372:U:C4	2.73	0.56
2:CB:134:GLU:O	2:CB:138:LEU:HD11	2.05	0.56
7:CG:58:PRO:HA	7:CG:61:VAL:HG12	1.87	0.56
16:CP:58:TYR:O	16:CP:61:SER:OG	2.12	0.56
37:BR:38:VAL:HG22	37:BR:112:ALA:HB2	1.87	0.56
25:DA:1486:A:O2'	25:DA:1487:G:H5'	2.05	0.56
1:AA:1313:U:O4	19:AS:4:SER:HA	2.05	0.56
25:BA:2099:U:H3	25:BA:2190:G:H1	1.52	0.56
25:BA:1688:U:O2	25:BA:1700:A:H5'	2.05	0.56
25:DA:1762:A:H8	58:DA:4689:HOH:O	1.87	0.56
9:CI:114:TYR:HD2	9:CI:114:TYR:H	1.52	0.56
35:BP:50:ARG:HG3	35:BP:50:ARG:HH21	1.70	0.56
25:BA:330:A:C2	25:BA:1210:A:H2'	2.39	0.56
1:AA:656:C:O2'	15:AO:28:GLN:NE2	2.39	0.56
1:AA:1285:A:H4'	1:AA:1286:A:O5'	2.06	0.56
7:CG:102:ARG:O	7:CG:106:GLN:HB2	2.05	0.56
22:AY:124:GLN:O	22:AY:128:VAL:HB	2.05	0.56
9:CI:20:ARG:O	9:CI:60:ASP:HB2	2.05	0.56
25:BA:2203:U:O2'	25:BA:2205:C:H5'	2.06	0.56
1:AA:1203:C:H2'	1:AA:1204:A:O4'	2.05	0.56
20:AT:51:GLU:HG2	20:AT:54:LYS:HD3	1.88	0.56
32:BI:111:PRO:C	32:BI:113:ARG:H	2.08	0.56
40:DU:102:GLU:HG3	41:DV:2:PHE:CE1	2.41	0.56
1:CA:826:C:H2'	1:CA:827:U:H6	1.70	0.56
1:AA:373:A:HO2'	1:AA:481:G:N2	2.03	0.56
1:CA:1347:G:N2	1:CA:1373:G:H2'	2.21	0.56
25:DA:2296:U:OP2	38:DS:6:ALA:HB2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2389:G:H5''	25:BA:2390:U:C5'	2.36	0.56
28:BE:11:MET:HG2	28:BE:24:THR:HB	1.87	0.56
25:DA:2387:U:OP1	46:D0:55:ARG:NH2	2.38	0.56
25:DA:1971:A:C4	27:DD:241:PRO:HD3	2.41	0.56
1:AA:921:U:O2	5:AE:19:MET:HB2	2.06	0.56
3:AC:32:LEU:HD13	3:AC:59:ARG:NH1	2.21	0.56
27:BD:108:PRO:HG2	27:BD:111:LEU:HB2	1.87	0.56
25:BA:1796:U:H2'	25:BA:1797:C:C6	2.41	0.56
2:AB:114:ARG:HH11	2:AB:118:LEU:HD21	1.69	0.56
2:AB:141:GLU:O	2:AB:145:LEU:HB2	2.06	0.56
25:DA:229:A:H5''	25:DA:230:U:H5'	1.88	0.56
4:CD:88:VAL:O	4:CD:92:VAL:HG23	2.05	0.56
11:CK:80:VAL:H	11:CK:104:GLN:HB2	1.71	0.56
45:DZ:180:VAL:O	45:DZ:183:LEU:HB2	2.05	0.56
45:DZ:104:PHE:HB3	45:DZ:141:VAL:HG21	1.87	0.56
1:AA:236:G:H5''	17:AQ:42:TYR:OH	2.05	0.56
1:CA:202:U:H3'	1:CA:203:U:H6	1.70	0.56
17:AQ:13:ASP:OD1	17:AQ:13:ASP:N	2.37	0.56
25:BA:511:U:C5	25:BA:512:G:C5	2.94	0.56
1:CA:1323:G:H2'	1:CA:1324:A:H8	1.69	0.56
22:AY:30:VAL:HG22	25:BA:2602:A:C5	2.40	0.56
1:AA:452:A:O2'	1:AA:453:A:OP2	2.18	0.56
1:AA:1239:A:H62	1:AA:1299:A:N6	2.02	0.56
2:CB:100:GLY:CA	2:CB:104:ASN:H	2.18	0.56
1:CA:189(C):C:H2'	1:CA:189(D):C:O4'	2.05	0.56
46:D0:27:GLU:HG3	46:D0:68:GLU:HA	1.88	0.56
29:BF:62:ARG:HG3	29:BF:63:LYS:N	2.20	0.56
25:DA:528:A:C2	25:DA:2042:A:H2'	2.41	0.56
25:DA:2641:G:P	33:DN:74:ARG:HH21	2.29	0.56
25:BA:1358:G:N1	25:BA:1372:U:OP2	2.32	0.56
13:CM:15:VAL:O	13:CM:19:LEU:HD23	2.05	0.56
1:CA:1095:U:H5''	1:CA:1109:C:O2	2.05	0.56
2:AB:55:PHE:HA	2:AB:58:ILE:HB	1.88	0.56
27:BD:148:GLU:HB3	27:BD:151:LYS:HD2	1.88	0.56
25:DA:229:A:C8	25:DA:229:A:H3'	2.41	0.56
5:AE:98:THR:HG22	5:AE:99:GLY:O	2.06	0.56
9:AI:94:ALA:C	9:AI:96:LEU:H	2.09	0.56
25:DA:2061:G:H5''	25:DA:2503:A:C2	2.41	0.56
1:CA:1317:C:N4	14:CN:19:ARG:HH21	2.04	0.56
25:DA:2395:C:O2'	47:D1:30:VAL:O	2.24	0.56
25:BA:700:G:H2'	25:BA:701:G:O4'	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1181:G:O2'	1:AA:1182:G:C5	2.59	0.56
42:BW:88:ARG:NH1	42:BW:94:ASP:OD1	2.39	0.56
1:AA:600:C:H2'	1:AA:601:C:H6	1.71	0.56
1:CA:1310:G:H1	1:CA:1327:C:H42	1.54	0.56
25:BA:2492:U:H2'	25:BA:2493:U:C6	2.41	0.56
1:CA:1014:A:H1'	19:CS:34:TRP:HB2	1.88	0.56
11:CK:99:GLN:HE21	11:CK:105:VAL:HG21	1.70	0.56
34:DO:77:ILE:HG13	39:DT:74:ARG:HG2	1.87	0.56
25:BA:1025:G:C4	25:BA:1135:C:H1'	2.41	0.56
49:B3:39:ASP:OD2	49:B3:44:ARG:NH1	2.39	0.56
13:CM:33:ALA:HA	13:CM:59:TYR:CE1	2.41	0.56
1:CA:1067:A:H8	1:CA:1067:A:O5'	1.88	0.56
7:AG:12:LEU:HD12	7:AG:12:LEU:H	1.71	0.56
17:AQ:29:HIS:HB2	17:AQ:36:ILE:HD13	1.87	0.56
29:DF:129:PHE:O	29:DF:132:VAL:HG22	2.06	0.56
14:AN:24:CYS:SG	14:AN:40:CYS:N	2.77	0.56
42:DW:50:VAL:HG12	42:DW:105:VAL:CG2	2.36	0.56
8:AH:27:PRO:HA	8:AH:58:TYR:HA	1.88	0.56
1:AA:474:G:H2'	1:AA:475:G:C8	2.41	0.56
38:DS:58:LEU:HD12	38:DS:59:LYS:HB2	1.87	0.56
7:AG:90:GLU:N	7:AG:90:GLU:OE2	2.39	0.56
25:DA:2277:G:H3'	46:D0:12:ASN:ND2	2.21	0.56
9:CI:118:LYS:O	9:CI:120:ARG:N	2.35	0.56
1:AA:528:C:OP1	22:AY:124:GLN:NE2	2.38	0.56
1:CA:1530:G:O2'	1:CA:1531:A:OP1	2.17	0.56
25:DA:2463:C:C2'	25:DA:2464:C:H5'	2.35	0.56
37:BR:55:ALA:HB2	37:BR:79:LEU:HD13	1.87	0.56
1:AA:70:G:H1	1:AA:99:U:H3	1.54	0.56
1:AA:412:A:C6	4:AD:35:ARG:HG2	2.41	0.56
25:DA:2320:A:H2'	25:DA:2320:A:N3	2.19	0.56
1:AA:419:C:H5''	1:AA:513:C:H1'	1.88	0.56
25:BA:1239:G:H2'	25:BA:1240:U:O4'	2.06	0.56
1:AA:518:C:O2	22:AY:117:ARG:NH1	2.38	0.56
26:DB:22:U:H3	26:DB:61:G:H1	1.53	0.56
25:DA:2404:C:H2'	25:DA:2405:G:H5'	1.88	0.56
18:AR:31:LEU:O	18:AR:32:ARG:HB2	2.06	0.56
1:CA:1353:G:H2'	1:CA:1354:C:C6	2.41	0.55
39:BT:55:ASN:N	39:BT:59:THR:HG22	2.21	0.55
4:CD:19:LEU:HB3	4:CD:67:ILE:HG12	1.87	0.55
1:AA:476:G:OP2	1:AA:476:G:H8	1.89	0.55
54:B8:61:LEU:O	54:B8:63:PRO:HD3	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1209:G:H21	25:DA:1210:A:H62	1.54	0.55
2:CB:97:TRP:HH2	2:CB:176:GLU:HB2	1.72	0.55
5:CE:8:GLU:HA	5:CE:34:VAL:HA	1.88	0.55
11:AK:48:ILE:HD12	11:AK:63:LEU:HB3	1.88	0.55
25:DA:1859:A:N6	25:DA:1883:G:O2'	2.37	0.55
25:BA:10:G:O2'	25:BA:2801(A):A:N7	2.37	0.55
25:DA:1939:U:OP1	25:DA:2604:U:O2'	2.24	0.55
25:DA:1167:U:O2	25:DA:1183:G:N2	2.39	0.55
7:CG:69:VAL:HG22	7:CG:135:VAL:HG22	1.89	0.55
9:AI:4:TYR:CZ	9:AI:88:TYR:HD1	2.25	0.55
50:B4:26:SER:OG	50:B4:27:THR:N	2.37	0.55
1:AA:839:U:O2	1:AA:839:U:H2'	2.05	0.55
22:AY:32:LYS:HG2	25:BA:2573:C:C5	2.41	0.55
32:DI:68:LEU:HA	32:DI:71:ILE:HG22	1.87	0.55
5:CE:36:ASP:HB3	5:CE:38:GLN:N	2.20	0.55
25:BA:847:U:C4	25:BA:933:A:N6	2.73	0.55
49:D3:27:GLY:HA3	49:D3:35:ARG:NH1	2.21	0.55
25:BA:2371:G:H1'	52:B6:39:TYR:HE1	1.71	0.55
1:AA:460:G:N1	1:AA:470:C:H5''	2.21	0.55
14:CN:24:CYS:CB	14:CN:28:GLY:HA2	2.36	0.55
31:BH:94:TYR:CD1	31:BH:107:VAL:HA	2.42	0.55
7:CG:111:ARG:HE	7:CG:123:GLU:HB2	1.71	0.55
25:BA:184:C:H2'	25:BA:185:U:C6	2.42	0.55
17:AQ:86:GLU:O	17:AQ:90:ILE:HG12	2.06	0.55
4:CD:30:LYS:CB	4:CD:35:ARG:HD2	2.37	0.55
25:DA:2870:C:H5''	37:DR:65:LEU:HD21	1.88	0.55
31:BH:9:ILE:HD11	31:BH:69:ARG:HD2	1.88	0.55
1:AA:679:C:H2'	1:AA:680:C:C6	2.40	0.55
25:BA:754:C:H2'	25:BA:755:C:H6	1.71	0.55
1:AA:49:U:O4	1:AA:365:U:H5	1.89	0.55
25:DA:1366:A:OP1	47:D1:3:LYS:NZ	2.38	0.55
1:CA:1188:A:H2'	1:CA:1189:C:O4'	2.06	0.55
25:BA:2615:U:H2'	25:BA:2616:C:H6	1.71	0.55
10:AJ:8:LEU:HD12	10:AJ:20:ALA:HB2	1.86	0.55
2:AB:24:TRP:N	2:AB:24:TRP:CD1	2.69	0.55
8:AH:39:LEU:HB3	8:AH:45:ILE:HG12	1.87	0.55
14:CN:29:ARG:HG2	14:CN:40:CYS:HB3	1.87	0.55
25:DA:2329:G:N2	46:D0:41:ARG:HG3	2.21	0.55
1:AA:426:G:OP1	4:AD:36:ARG:NH1	2.40	0.55
13:AM:15:VAL:HG23	13:AM:43:THR:O	2.06	0.55
1:AA:45:U:H2'	1:AA:46:G:C8	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:804:U:H5''	1:CA:805:C:OP2	2.06	0.55
5:CE:83:GLU:HG2	5:CE:88:LYS:HD2	1.87	0.55
13:CM:10:PRO:HG2	13:CM:18:ALA:HB1	1.88	0.55
23:CV:10:G:N2	23:CV:26:G:H1'	2.21	0.55
1:CA:1321:C:H5''	1:CA:1321:C:H6	1.71	0.55
22:AY:8:VAL:HG11	22:AY:49:PRO:HD3	1.88	0.55
25:BA:2847:U:OP1	39:BT:98:LYS:NZ	2.37	0.55
25:BA:1359:A:H61	25:BA:1372:U:H3	1.53	0.55
1:CA:1205:U:H4'	3:CC:195:VAL:CG2	2.36	0.55
1:CA:1014:A:C2	1:CA:1219:U:H1'	2.42	0.55
25:BA:511:U:H5''	25:BA:512:G:OP2	2.06	0.55
25:DA:2463:C:H2'	25:DA:2464:C:H5'	1.88	0.55
25:BA:1444:G:H2'	25:BA:1445(A):C:C5	2.41	0.55
17:AQ:57:VAL:HG21	17:AQ:73:VAL:HG13	1.88	0.55
1:AA:877:C:H5''	8:AH:88:LYS:HD3	1.87	0.55
11:CK:38:ASN:N	11:CK:38:ASN:OD1	2.40	0.55
3:AC:30:ARG:HG2	14:AN:36:PHE:O	2.07	0.55
1:AA:503:C:OP2	12:AL:116:SER:HB3	2.07	0.55
25:BA:1034:G:H5'	55:B9:18:ARG:HD2	1.88	0.55
25:DA:242:G:H5''	54:D8:64:TYR:CE2	2.42	0.55
9:CI:99:LEU:HB3	9:CI:101:PHE:CE1	2.42	0.55
25:DA:448:U:C4	25:DA:583:G:H1'	2.41	0.55
27:BD:72:LYS:HB3	27:BD:75:ILE:HD12	1.87	0.55
25:DA:639:U:H2'	25:DA:640:C:H6	1.70	0.55
25:BA:652(H):C:H2'	25:BA:652(I):C:H5'	1.89	0.55
29:DF:36:VAL:O	29:DF:40:GLN:HG3	2.07	0.55
41:BV:29:PRO:HA	41:BV:61:VAL:CG2	2.36	0.55
1:AA:1123:A:O2'	10:AJ:37:PRO:O	2.23	0.55
47:B1:58:ILE:O	47:B1:58:ILE:HG13	2.06	0.55
1:AA:991:U:H4'	1:AA:992:U:O5'	2.06	0.55
1:CA:1236:A:H4'	1:CA:1304:G:H4'	1.89	0.55
4:CD:149:ALA:HB3	4:CD:152:SER:HB2	1.89	0.55
11:AK:107:SER:OG	11:AK:108:ILE:N	2.38	0.55
1:AA:308:C:H2'	1:AA:309:G:H8	1.71	0.55
10:CJ:55:LYS:H	10:CJ:56:HIS:HD2	1.54	0.55
32:DI:56:LYS:O	32:DI:60:GLU:N	2.36	0.55
5:CE:24:ARG:O	5:CE:25:ARG:HG3	2.07	0.55
26:DB:30:C:H2'	26:DB:31:C:H5'	1.89	0.55
10:AJ:45:ARG:HG2	10:AJ:47:PHE:CZ	2.41	0.55
35:BP:50:ARG:HD3	54:B8:7:HIS:CD2	2.42	0.55
10:AJ:8:LEU:N	10:AJ:70:ARG:O	2.23	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DF:32:LEU:O	29:DF:36:VAL:HG23	2.07	0.55
4:AD:121:VAL:HA	4:AD:126:ILE:HG13	1.89	0.55
1:CA:1118:C:H1'	1:CA:1179:A:C4	2.41	0.55
2:CB:47:THR:HA	2:CB:202:PRO:HG2	1.88	0.55
1:AA:1059:C:O2	10:AJ:53:PRO:HG3	2.06	0.55
13:AM:74:VAL:HG13	13:AM:78:ILE:HD11	1.88	0.55
25:DA:2371:G:O2'	52:D6:46:HIS:ND1	2.33	0.55
25:BA:1918:A:O2'	25:BA:1920:C:N4	2.40	0.55
13:AM:87:TYR:O	13:AM:91:ARG:HG2	2.07	0.55
4:CD:10:ARG:HB3	4:CD:40:PRO:HG3	1.88	0.55
25:BA:792:G:H5''	25:BA:793:A:H5'	1.87	0.55
1:CA:1227:A:H8	1:CA:1227:A:H3'	1.71	0.55
1:AA:974:A:OP1	1:AA:974:A:H8	1.88	0.55
1:AA:452:A:OP1	16:AP:43:LYS:NZ	2.25	0.55
31:DH:44:VAL:HB	31:DH:51:ARG:H	1.71	0.55
25:DA:579:G:H2'	25:DA:580:C:C6	2.41	0.55
34:BO:7:TYR:CE1	34:BO:20:MET:HB2	2.41	0.55
5:CE:80:ILE:HD13	5:CE:138:ALA:HB1	1.89	0.55
30:BG:60:LEU:O	30:BG:64:THR:HG23	2.07	0.55
1:AA:236:G:H2'	1:AA:237:C:C6	2.41	0.55
17:AQ:29:HIS:CD2	17:AQ:32:TYR:HB2	2.41	0.55
1:AA:972:C:H2'	10:AJ:55:LYS:HB2	1.88	0.55
25:BA:733:G:N7	58:BA:5175:HOH:O	2.33	0.55
25:DA:1259:G:H2'	25:DA:1260:G:C8	2.40	0.55
3:AC:44:GLU:O	3:AC:48:TYR:HB2	2.06	0.55
25:DA:2755:C:O3'	25:DA:2756:U:H6	1.90	0.55
23:AV:49:G:H1	23:AV:65:C:H42	1.53	0.55
54:D8:32:LEU:O	54:D8:36:LYS:HE3	2.06	0.55
40:DU:19:LYS:O	40:DU:22:LYS:HG3	2.07	0.55
25:DA:2239:G:H5'	27:DD:251:GLY:HA3	1.87	0.55
1:AA:818:G:HO2'	1:AA:820:U:H6	1.51	0.55
1:AA:363:A:OP1	12:AL:33:ARG:HG3	2.06	0.55
22:AY:22:ALA:HA	22:AY:37:ILE:HG13	1.89	0.55
25:BA:1174:A:H1'	25:BA:1175:U:H5''	1.89	0.55
33:DN:67:LEU:HD13	33:DN:87:LEU:HD13	1.88	0.55
48:B2:13:ALA:HA	48:B2:16:LEU:CD1	2.37	0.55
37:BR:33:ARG:NH2	51:B5:57:VAL:O	2.36	0.55
1:AA:519:C:H2'	1:AA:520:A:C8	2.42	0.55
37:DR:78:LYS:HE2	37:DR:83:ILE:HD11	1.89	0.55
1:AA:41:G:H2'	1:AA:42:G:H8	1.72	0.55
1:AA:70:G:H2'	1:AA:71:C:C6	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BW:19:LEU:HB3	51:B5:25:LEU:HD11	1.89	0.55
4:AD:30:LYS:C	4:AD:32:ALA:H	2.03	0.55
25:DA:2028:U:H5	58:DA:4592:HOH:O	1.89	0.55
54:D8:37:SER:OG	54:D8:40:GLU:HG3	2.07	0.55
32:DI:102:SER:OG	32:DI:103:ARG:N	2.39	0.55
28:DE:178:GLU:OE2	28:DE:178:GLU:N	2.23	0.55
15:AO:76:GLU:HA	15:AO:76:GLU:OE2	2.06	0.55
4:CD:53:ASP:O	4:CD:57:ARG:NH1	2.40	0.55
31:DH:144:VAL:O	31:DH:148:ILE:HG12	2.07	0.55
26:DB:4:C:H42	26:DB:117:G:H1	1.55	0.55
1:CA:974:A:H8	1:CA:974:A:OP1	1.90	0.55
1:CA:826:C:H5'	8:CH:12:ARG:HH11	1.72	0.55
32:BI:120:ILE:HG21	32:BI:126:TYR:CE1	2.42	0.55
29:BF:32:LEU:HD11	29:BF:105:VAL:HG13	1.88	0.55
1:AA:865:A:C2	1:AA:918:A:H4'	2.42	0.55
1:CA:11:G:C5	1:CA:12:U:C5	2.95	0.55
25:DA:2658:C:H5''	31:DH:158:HIS:CD2	2.42	0.55
7:AG:27:ILE:HD11	7:AG:40:ALA:HA	1.88	0.55
45:DZ:126:VAL:HG11	45:DZ:161:VAL:HG22	1.88	0.55
9:AI:49:PRO:HG3	9:AI:101:PHE:HD2	1.72	0.55
27:DD:95:LEU:HD11	27:DD:105:ILE:HG12	1.88	0.55
41:BV:19:LYS:HG2	41:BV:95:LEU:HD23	1.89	0.55
49:D3:8:LEU:HD13	49:D3:31:LEU:HD23	1.87	0.55
25:BA:1639:U:O2'	25:BA:1640:C:H5'	2.06	0.55
12:AL:32:PHE:CE1	12:AL:86:ARG:HG3	2.42	0.55
18:CR:45:SER:OG	18:CR:47:THR:HG22	2.07	0.55
25:DA:442:G:H4'	29:DF:46:ARG:HG3	1.89	0.55
25:BA:2296:U:OP2	38:BS:9:ARG:NH2	2.40	0.55
1:CA:216:G:H2'	1:CA:217:C:C6	2.41	0.55
1:AA:303:A:HO2'	1:AA:555:C:HO2'	1.50	0.55
29:BF:175:THR:O	29:BF:176:LEU:HB2	2.07	0.55
34:DO:120:GLU:HG2	34:DO:122:LEU:HG	1.89	0.55
1:AA:130:A:O2'	1:AA:131:C:O5'	2.22	0.55
25:DA:2037:G:H2'	25:DA:2038:G:C8	2.42	0.55
33:BN:24:GLY:HA2	33:BN:27:ALA:HB3	1.90	0.54
4:AD:36:ARG:HG2	4:AD:36:ARG:NH1	2.23	0.54
1:AA:1511:G:H2'	1:AA:1512:U:O4'	2.07	0.54
1:AA:665:A:H1'	1:AA:733:A:O4'	2.07	0.54
43:DX:3:THR:OG1	43:DX:5:TYR:N	2.37	0.54
25:DA:1034:G:H5'	55:D9:18:ARG:HD2	1.88	0.54
45:DZ:3:TYR:HB2	45:DZ:56:VAL:O	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:207:A:H2'	25:BA:208:C:O4'	2.07	0.54
45:DZ:100:VAL:HG13	45:DZ:136:PHE:HA	1.89	0.54
25:BA:1324:G:C4	25:BA:1328:G:O6	2.59	0.54
25:BA:910:A:C5	36:BQ:13:GLN:HG3	2.43	0.54
38:DS:53:SER:OG	38:DS:54:LEU:N	2.39	0.54
1:AA:97:G:O2'	1:AA:98:G:H8	1.90	0.54
49:D3:22:ALA:HB2	49:D3:49:LYS:HD3	1.90	0.54
8:AH:20:TYR:HA	8:AH:65:TYR:CZ	2.42	0.54
2:CB:166:ASP:HB3	2:CB:169:LYS:HB3	1.90	0.54
25:BA:1021:A:H2'	25:BA:1023:U:H5'	1.88	0.54
1:CA:736:C:OP1	18:CR:72:ARG:NH1	2.41	0.54
25:DA:829:A:H5''	25:DA:831:G:N7	2.22	0.54
16:AP:21:VAL:HG11	16:AP:59:TRP:NE1	2.22	0.54
25:DA:1688:U:O2	25:DA:1700:A:H5'	2.07	0.54
41:DV:56:SER:H	41:DV:100:ARG:HB2	1.71	0.54
25:BA:2591:C:OP1	27:BD:239:ARG:HG2	2.07	0.54
1:AA:1376:U:H2'	1:AA:1377:A:H8	1.73	0.54
2:AB:52:GLU:OE1	2:AB:56:ARG:NH1	2.40	0.54
28:DE:4:ILE:HD13	28:DE:28:ALA:HB1	1.89	0.54
25:BA:2751:G:H4'	31:BH:4:ILE:HD11	1.89	0.54
2:CB:149:LEU:HD23	2:CB:152:PHE:HB3	1.87	0.54
41:DV:72:VAL:HG13	41:DV:85:LYS:HB3	1.89	0.54
51:D5:35:GLU:HG3	51:D5:51:TYR:CD2	2.41	0.54
5:CE:148:VAL:HG21	8:CH:107:LEU:HD12	1.89	0.54
25:DA:2661:G:H2'	25:DA:2662:A:C8	2.43	0.54
45:DZ:111:VAL:C	45:DZ:113:ALA:H	2.10	0.54
25:BA:229:A:OP1	25:BA:229:A:H8	1.90	0.54
36:DQ:1:MET:HG2	36:DQ:1:MET:O	2.07	0.54
29:BF:179:GLU:OE2	29:BF:179:GLU:N	2.32	0.54
1:CA:1189:C:OP1	10:CJ:51:ARG:NH2	2.40	0.54
17:CQ:13:ASP:O	17:CQ:15:MET:N	2.40	0.54
1:CA:1220:G:H2'	1:CA:1221:G:O4'	2.08	0.54
25:DA:2405:G:H4'	25:DA:2406:U:OP2	2.08	0.54
44:BY:36:ALA:HB1	44:BY:67:LEU:O	2.07	0.54
34:BO:115:VAL:HG13	34:BO:121:VAL:HG21	1.89	0.54
25:BA:242:G:O4'	54:B8:3:LYS:HE3	2.07	0.54
4:AD:189:PRO:HB2	4:AD:194:LEU:HD11	1.90	0.54
20:CT:36:LEU:HD12	20:CT:55:ILE:HG23	1.90	0.54
9:CI:40:LEU:HD11	9:CI:70:LYS:HB3	1.88	0.54
25:BA:2096:U:H3	25:BA:2193:G:H1	1.55	0.54
38:BS:96:GLY:N	38:BS:99:LYS:HB3	2.21	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:7:G:H2'	25:DA:8:A:H8	1.70	0.54
2:AB:155:LEU:HD21	2:AB:159:PRO:HG3	1.88	0.54
7:AG:73:MET:HG3	7:AG:89:MET:O	2.08	0.54
8:CH:97:VAL:HA	8:CH:100:ILE:HD11	1.89	0.54
25:BA:534:U:H2'	25:BA:535:C:C6	2.43	0.54
44:BY:8:LYS:O	44:BY:11:ASP:OD1	2.25	0.54
25:BA:1420:U:HO2'	25:BA:1421:G:P	2.29	0.54
11:AK:108:ILE:HG22	18:AR:87:ARG:HD2	1.89	0.54
13:AM:74:VAL:O	13:AM:78:ILE:HG12	2.07	0.54
27:DD:172:TYR:CD1	27:DD:186:HIS:HA	2.42	0.54
46:B0:24:LYS:O	46:B0:25:ARG:HD3	2.07	0.54
25:DA:22:C:H42	25:DA:518:G:H1	1.55	0.54
8:CH:49:GLU:OE2	8:CH:62:TYR:OH	2.24	0.54
54:B8:54:GLU:O	54:B8:58:ILE:HD13	2.07	0.54
25:BA:577:G:O2'	25:BA:1254:A:OP1	2.22	0.54
1:AA:509:A:H3'	1:AA:509:A:C8	2.43	0.54
5:AE:69:VAL:N	5:AE:70:PRO:HD3	2.21	0.54
34:DO:15:GLY:HA2	34:DO:47:ILE:HD11	1.90	0.54
26:DB:55:U:C1'	30:DG:29:TRP:HE1	2.21	0.54
27:BD:136:ILE:HG22	27:BD:137:PRO:HD2	1.90	0.54
1:CA:443:C:H2'	1:CA:444:C:H6	1.73	0.54
14:CN:48:ALA:HB2	14:CN:53:LEU:HD12	1.90	0.54
43:BX:60:ARG:HH21	53:B7:47:ARG:HH21	1.53	0.54
1:AA:757:U:O2'	1:AA:879:C:O2	2.25	0.54
44:DY:13:VAL:HB	44:DY:72:VAL:HG22	1.88	0.54
13:CM:15:VAL:HG13	13:CM:44:ARG:HA	1.90	0.54
1:AA:222:U:H2'	1:AA:223:U:C6	2.43	0.54
1:CA:1170:A:N1	1:CA:1171:G:H1'	2.23	0.54
25:BA:779:U:H5''	27:BD:49:ILE:HD11	1.90	0.54
25:DA:795:C:H2'	25:DA:796:C:H6	1.73	0.54
1:AA:1307:U:OP1	13:AM:101:GLN:NE2	2.40	0.54
35:DP:52:GLU:O	35:DP:54:GLY:N	2.41	0.54
35:BP:140:ALA:O	35:BP:142:GLY:N	2.40	0.54
25:DA:455:C:N3	25:DA:472:A:H2'	2.21	0.54
1:AA:255:G:H1'	17:AQ:16:GLN:OE1	2.08	0.54
14:AN:50:LYS:HE3	14:AN:52:GLN:NE2	2.22	0.54
41:BV:49:THR:HG22	41:BV:49:THR:O	2.07	0.54
1:CA:376:G:H4'	16:CP:5:ARG:HH11	1.73	0.54
25:DA:1359:A:H61	25:DA:1372:U:H3	1.56	0.54
3:CC:29:TYR:H	3:CC:32:LEU:HG	1.72	0.54
14:AN:6:LEU:HD21	14:AN:23:ARG:HH22	1.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1316:G:H22	1:AA:1319:A:H5''	1.71	0.54
45:DZ:24:LEU:HB2	45:DZ:41:LEU:HD22	1.89	0.54
1:AA:1504:G:P	1:AA:1504:G:H3'	2.48	0.54
25:BA:2371:G:H1'	52:B6:39:TYR:CE1	2.42	0.54
13:AM:49:THR:O	13:AM:49:THR:OG1	2.24	0.54
1:CA:59:A:H3'	1:CA:331:G:H22	1.72	0.54
1:AA:191:G:H1'	58:AT:304:HOH:O	2.07	0.54
25:DA:2632:A:O2'	25:DA:2811:G:O2'	2.16	0.54
25:BA:1996:C:OP1	34:BO:31:LYS:HE3	2.08	0.54
41:BV:42:GLY:O	41:BV:43:GLU:HG2	2.07	0.54
25:BA:645:C:H2'	25:BA:645:C:O2	2.07	0.54
25:DA:126:A:OP2	53:D7:19:ARG:HB2	2.07	0.54
25:DA:889:C:HO2'	25:DA:890:A:H8	1.54	0.54
43:BX:44:GLU:HG3	43:BX:51:VAL:HG23	1.90	0.54
27:DD:127:VAL:HA	27:DD:193:VAL:CG2	2.38	0.54
1:CA:443:C:H2'	1:CA:444:C:C6	2.42	0.54
22:AY:62:HIS:N	25:BA:1946:U:OP1	2.40	0.54
6:AF:8:ILE:HG22	6:AF:10:LEU:HD22	1.88	0.54
25:DA:2689:U:H5	58:DA:3720:HOH:O	1.90	0.54
25:DA:857:C:H4'	46:D0:23:VAL:HG21	1.90	0.54
30:DG:24:GLY:O	30:DG:26:GLN:NE2	2.36	0.54
6:CF:33:TYR:CG	6:CF:75:LEU:HD23	2.43	0.54
23:CV:15:G:H2'	23:CV:59:A:N1	2.22	0.54
25:BA:1327:C:P	58:BA:4574:HOH:O	2.65	0.54
2:CB:50:GLU:O	2:CB:54:THR:OG1	2.24	0.54
33:DN:61:ARG:HB2	33:DN:61:ARG:HH11	1.73	0.54
25:BA:1968:G:OP1	58:BA:4142:HOH:O	2.18	0.54
25:BA:2186:G:H3'	25:BA:2187:G:H5''	1.88	0.54
1:CA:1148:U:H2'	1:CA:1149:C:O4'	2.07	0.54
1:AA:929:G:N2	1:AA:1388:C:N3	2.46	0.54
14:AN:23:ARG:HG3	14:AN:24:CYS:H	1.72	0.54
1:AA:1502:A:H2	1:AA:1505:G:N1	2.04	0.54
1:AA:1457:G:H2'	1:AA:1458:G:C8	2.42	0.54
25:BA:2611:U:H2'	51:B5:2:ALA:O	2.08	0.54
22:AY:63:LEU:HD22	22:AY:72:ILE:HG23	1.90	0.54
25:BA:2208:A:H1'	25:BA:2219:G:C4	2.43	0.54
50:D4:14:ILE:HG23	50:D4:31:ILE:HD12	1.90	0.54
25:DA:2329:G:H21	46:D0:41:ARG:HG3	1.73	0.54
2:AB:23:ARG:O	2:AB:23:ARG:HG3	2.08	0.54
32:DI:114:LEU:HD21	32:DI:128:LEU:HD13	1.89	0.54
29:DF:130:ALA:HB2	29:DF:142:TRP:HD1	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:878:G:H1'	8:CH:3:THR:HG21	1.90	0.54
30:DG:124:SER:HB2	30:DG:131:TYR:CE1	2.43	0.54
11:AK:23:ALA:HB2	11:AK:28:THR:HG23	1.90	0.54
25:DA:1638:C:O2	25:DA:2698:U:O2'	2.26	0.54
30:BG:3:LEU:HD13	50:B4:25:TYR:CZ	2.43	0.54
1:CA:438:G:H4'	4:CD:123:HIS:CD2	2.43	0.54
15:CO:59:MET:HE1	58:CO:201:HOH:O	2.07	0.54
38:BS:39:ILE:HD12	38:BS:85:VAL:HG21	1.90	0.54
25:DA:576:U:H5	58:DA:3932:HOH:O	1.91	0.54
1:AA:1053:G:H4'	1:AA:1054:C:H5'	1.89	0.54
25:BA:2698:U:H2'	25:BA:2699:C:C6	2.42	0.54
28:DE:112:GLY:O	28:DE:159:HIS:HA	2.08	0.54
51:B5:49:CYS:SG	51:B5:51:TYR:HB2	2.48	0.54
25:DA:631:A:H1'	35:DP:66:GLY:HA2	1.89	0.54
26:BB:48:A:H2'	26:BB:49:C:C6	2.43	0.54
16:AP:55:ARG:O	16:AP:58:TYR:N	2.41	0.54
20:AT:15:ARG:O	20:AT:19:SER:OG	2.26	0.54
1:CA:988:G:H2'	1:CA:989:C:O4'	2.07	0.54
18:AR:66:LEU:O	18:AR:70:ILE:HG13	2.07	0.54
25:DA:1970:A:OP1	58:DA:4216:HOH:O	2.17	0.54
48:B2:53:LEU:O	48:B2:56:GLN:HB2	2.08	0.54
25:DA:531:C:OP2	58:DA:4423:HOH:O	2.18	0.54
1:CA:1261:A:N6	1:CA:1274:G:H1'	2.22	0.54
32:DI:29:TYR:HD2	32:DI:30:LEU:HD23	1.72	0.54
1:CA:1062:U:H2'	1:CA:1063:C:C5	2.43	0.54
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.43	0.54
26:DB:24:G:H5'	26:DB:25:A:N7	2.23	0.54
25:DA:2406:U:OP1	25:DA:2411:A:N6	2.41	0.54
25:DA:2444:G:OP2	29:DF:68:LYS:HE2	2.07	0.54
25:DA:1786:A:H1'	25:DA:1938:A:N6	2.21	0.54
26:BB:37:C:C5	26:BB:38:C:C5	2.96	0.54
54:B8:22:VAL:HG12	54:B8:50:LEU:HD12	1.89	0.54
25:BA:2351:G:HO2'	25:BA:2352:A:H8	1.55	0.54
29:DF:117:ARG:HD2	29:DF:190:GLU:O	2.08	0.54
1:CA:1268:A:H2'	1:CA:1269:A:C8	2.43	0.54
4:CD:173:TRP:HZ3	4:CD:193:ASP:HB3	1.73	0.54
46:B0:63:VAL:HG23	46:B0:64:ASP:N	2.23	0.54
17:AQ:26:GLN:HG2	17:AQ:35:VAL:HG13	1.90	0.54
28:BE:2:LYS:HA	28:BE:84:PHE:CE2	2.43	0.54
3:CC:113:ALA:HB3	3:CC:114:PRO:HD3	1.88	0.54
2:AB:12:GLU:O	2:AB:16:HIS:HB2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:852:G:N2	25:DA:926:A:H1'	2.23	0.54
25:DA:1022:G:H22	25:DA:1142(A):A:H2	1.56	0.54
45:BZ:40:ASP:HB3	45:BZ:43:GLU:HB2	1.90	0.54
1:CA:769:G:H4'	1:CA:1513:A:H4'	1.90	0.54
42:DW:40:ASN:O	42:DW:41:LYS:HG2	2.08	0.54
1:CA:604:G:H2'	1:CA:605:U:O4'	2.08	0.54
31:BH:8:PRO:O	31:BH:69:ARG:NH1	2.40	0.54
15:AO:82:ILE:HB	15:AO:87:ILE:HG22	1.90	0.54
5:AE:78:HIS:CD2	5:AE:142:LEU:HD23	2.42	0.54
1:AA:986:A:H1'	19:AS:54:GLY:O	2.07	0.54
1:CA:1300:G:HO2'	1:CA:1301:U:P	2.29	0.54
25:BA:836:G:H2'	25:BA:837:C:C6	2.43	0.54
38:BS:7:TYR:CE1	38:BS:91:PRO:HG3	2.43	0.54
26:BB:30:C:OP2	38:BS:32:LEU:HD11	2.08	0.54
1:CA:1103:C:H2'	1:CA:1104:G:O4'	2.08	0.54
13:CM:22:ILE:HB	13:CM:25:ILE:HD13	1.90	0.54
17:CQ:86:GLU:HG3	17:CQ:90:ILE:HG13	1.89	0.54
25:BA:1593:G:H2'	25:BA:1594:G:C8	2.43	0.54
31:DH:118:PRO:HD2	31:DH:121:ILE:HG13	1.90	0.54
1:AA:251:G:N7	58:AA:2225:HOH:O	2.34	0.54
48:D2:32:LEU:HB2	48:D2:53:LEU:HD13	1.90	0.54
3:CC:117:ALA:HB2	3:CC:200:ALA:HB2	1.89	0.54
1:AA:1293:G:HO2'	1:AA:1294:G:H8	1.54	0.54
26:DB:50:G:OP1	38:DS:63:THR:OG1	2.20	0.53
25:BA:826:U:H4'	35:BP:55:ARG:HB2	1.90	0.53
29:BF:102:PRO:O	29:BF:105:VAL:N	2.34	0.53
25:BA:642:G:H21	25:BA:646:A:H2	1.55	0.53
1:AA:872:A:H4'	1:AA:873:A:OP1	2.07	0.53
50:B4:40:HIS:O	50:B4:42:PHE:N	2.40	0.53
1:CA:1065:U:H4'	1:CA:1066:C:O5'	2.08	0.53
1:AA:1468:A:H2'	1:AA:1469:G:O4'	2.08	0.53
25:DA:886:C:OP1	25:DA:886:C:H4'	2.08	0.53
6:CF:67:MET:HG3	6:CF:68:PRO:HD2	1.90	0.53
3:AC:131:ARG:HH21	3:AC:166:GLU:HB3	1.72	0.53
2:CB:22:LYS:NZ	58:CB:301:HOH:O	2.29	0.53
15:AO:8:LYS:O	15:AO:12:ILE:HG13	2.08	0.53
30:DG:44:GLY:HA2	30:DG:88:ILE:HG22	1.89	0.53
25:BA:2439:A:C8	25:BA:2439:A:H5'	2.42	0.53
26:BB:95:C:H2'	26:BB:96:U:C6	2.43	0.53
40:BU:59:ARG:O	40:BU:63:VAL:HG23	2.08	0.53
11:AK:99:GLN:HG2	11:AK:105:VAL:HG21	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1165:U:H2'	25:BA:1166:C:C6	2.43	0.53
22:AY:38:HIS:CE1	22:AY:84:ARG:HB2	2.42	0.53
1:AA:826:C:H4'	8:AH:12:ARG:HD3	1.89	0.53
25:DA:1470:G:H5''	25:DA:1471:A:OP1	2.09	0.53
1:AA:1456:G:O2'	1:AA:1457:G:OP1	2.24	0.53
39:BT:54:ARG:HA	39:BT:59:THR:HG22	1.90	0.53
3:AC:11:ARG:HB3	3:AC:15:THR:HB	1.90	0.53
15:CO:70:LEU:O	15:CO:70:LEU:HD12	2.08	0.53
1:AA:1171:G:H2'	1:AA:1172:C:H6	1.73	0.53
6:AF:2:ARG:CZ	6:AF:69:GLU:HG2	2.38	0.53
2:AB:118:LEU:HD12	2:AB:142:LEU:HB2	1.89	0.53
25:BA:2016:U:H1'	51:B5:6:VAL:HG13	1.89	0.53
5:AE:95:ALA:HB1	5:AE:96:PRO:HD2	1.90	0.53
2:AB:238:LEU:HA	2:AB:239:VAL:C	2.29	0.53
11:CK:59:TYR:CE2	11:CK:63:LEU:HD12	2.43	0.53
20:CT:61:SER:OG	20:CT:65:LYS:HE3	2.08	0.53
15:CO:34:LEU:HD11	15:CO:38:ARG:HH11	1.72	0.53
1:CA:1358:U:H3	1:CA:1363(A):A:H61	0.61	0.53
11:AK:79:SER:HA	11:AK:104:GLN:CB	2.32	0.53
1:CA:1157:A:O4'	1:CA:1181:G:N2	2.42	0.53
1:AA:922:G:C6	1:AA:923:A:C6	2.96	0.53
25:DA:300:A:N6	58:DA:3884:HOH:O	2.41	0.53
1:CA:171:A:H2'	1:CA:172:A:C8	2.42	0.53
1:AA:352:C:O2'	1:AA:354:G:OP1	2.17	0.53
1:CA:1292:U:H2'	1:CA:1293:G:C8	2.43	0.53
25:BA:2850:A:OP2	25:BA:2866:U:C5	2.59	0.53
25:DA:363:G:H2'	25:DA:363(A):A:C8	2.41	0.53
23:CV:18:G:O2'	23:CV:19:G:O5'	2.26	0.53
2:CB:92:TYR:CD2	2:CB:151:GLY:HA3	2.43	0.53
25:BA:2565:A:H5''	25:BA:2566:A:OP2	2.09	0.53
5:AE:57:LYS:HD3	5:AE:61:TYR:HE2	1.72	0.53
28:DE:72:VAL:HA	28:DE:73:GLU:HB3	1.90	0.53
25:BA:2530:A:N7	31:BH:172:LYS:NZ	2.54	0.53
25:BA:1385:G:O2'	25:BA:1396:U:O2	2.25	0.53
2:AB:101:MET:HB2	2:AB:102:LEU:HD12	1.90	0.53
25:BA:2223:G:H2'	25:BA:2224:G:H5'	1.91	0.53
25:DA:1651:G:OP1	37:DR:40:LYS:HE3	2.08	0.53
36:DQ:20:ALA:HA	36:DQ:99:PRO:HD2	1.90	0.53
13:CM:50:GLU:HA	13:CM:53:VAL:HB	1.89	0.53
20:AT:14:LYS:HG2	20:AT:18:GLN:HE21	1.74	0.53
20:AT:12:ALA:O	20:AT:15:ARG:HB2	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:63:THR:HB	13:CM:64:TRP:CE3	2.43	0.53
1:CA:1298:C:H4'	1:CA:1299:A:C4	2.43	0.53
34:BO:7:TYR:CZ	34:BO:44:LYS:HG3	2.43	0.53
1:AA:646:U:O4	58:AA:2267:HOH:O	2.18	0.53
38:DS:27:SER:HA	38:DS:88:ASP:HB3	1.90	0.53
37:DR:104:ARG:HG3	37:DR:107:ASP:OD2	2.09	0.53
25:DA:2300:G:H2'	25:DA:2301:C:C6	2.43	0.53
12:AL:31:PRO:HB2	12:AL:32:PHE:CD2	2.43	0.53
22:AY:116:GLU:O	22:AY:119:LEU:HB3	2.08	0.53
4:AD:170:VAL:HG22	4:AD:171:GLY:H	1.73	0.53
37:DR:33:ARG:NH2	51:D5:57:VAL:O	2.34	0.53
9:CI:53:VAL:O	9:CI:55:ALA:N	2.42	0.53
1:CA:1517:G:H1'	25:DA:1919:A:O3'	2.09	0.53
45:DZ:74:VAL:HG22	45:DZ:86:VAL:HG13	1.88	0.53
23:CV:47:U:H3'	23:CV:48:C:H5'	1.90	0.53
25:BA:1168:G:H1	25:BA:1181:C:H42	1.56	0.53
17:AQ:18:THR:HG23	17:AQ:69:LYS:HZ1	1.74	0.53
1:AA:954:G:H21	1:AA:1227:A:N6	2.05	0.53
33:DN:48:MET:HE2	33:DN:48:MET:H	1.73	0.53
1:CA:1239:A:C2'	1:CA:1298:C:H42	2.21	0.53
1:CA:1207:G:H2'	1:CA:1208:C:C6	2.43	0.53
25:DA:2680:C:H5'	28:DE:189:PRO:HA	1.90	0.53
1:AA:432:A:H3'	1:AA:433:C:C6	2.43	0.53
1:AA:418:C:H1'	1:AA:540:G:O2'	2.08	0.53
3:AC:23:TYR:CG	3:AC:24:ALA:N	2.77	0.53
1:CA:1169:A:H2'	1:CA:1170:A:H8	1.74	0.53
25:DA:907:U:O2'	36:DQ:101:ARG:NH2	2.42	0.53
1:CA:859:A:H2'	1:CA:860:A:O4'	2.09	0.53
4:AD:173:TRP:HB2	4:AD:187:ARG:O	2.09	0.53
1:AA:1053:G:HO2'	1:AA:1199:U:H5	1.55	0.53
1:CA:187:C:H2'	1:CA:188:C:C6	2.43	0.53
1:AA:977:A:H2'	1:AA:978:A:H5''	1.91	0.53
25:DA:2881:C:H2'	25:DA:2882:A:O4'	2.08	0.53
1:CA:675:A:O2'	11:CK:114:VAL:O	2.26	0.53
42:BW:68:ARG:HB3	42:BW:109:GLU:HG2	1.90	0.53
40:DU:72:HIS:HE2	40:DU:107:ALA:HB2	1.73	0.53
1:AA:544:G:H2'	1:AA:545:C:C6	2.44	0.53
36:BQ:109:VAL:HG13	36:BQ:113:GLN:HB2	1.90	0.53
1:CA:881:G:P	12:CL:12:ARG:HH22	2.31	0.53
3:CC:43:LEU:HB3	3:CC:47:LEU:HD12	1.90	0.53
32:DI:77:LEU:HD11	32:DI:101:LEU:HB2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DZ:128:VAL:HG23	45:DZ:161:VAL:H	1.73	0.53
1:CA:436:C:O2'	1:CA:437:U:H6	1.91	0.53
20:CT:73:HIS:HB3	20:CT:74:LYS:HG2	1.90	0.53
1:AA:939:G:H5''	7:AG:102:ARG:NH2	2.24	0.53
1:AA:730:G:C5	1:AA:731:G:H1'	2.44	0.53
30:DG:44:GLY:CA	30:DG:88:ILE:HG22	2.38	0.53
1:CA:1235:U:O2'	1:CA:1305:G:O5'	2.27	0.53
11:AK:44:SER:OG	11:AK:47:VAL:HG23	2.09	0.53
25:DA:2359:C:H2'	25:DA:2360:A:O4'	2.09	0.53
1:CA:623:C:H6	1:CA:623:C:O5'	1.92	0.53
8:AH:121:ASP:HB2	8:AH:125:ARG:NH2	2.24	0.53
4:AD:79:PHE:CE1	4:AD:204:ILE:HD13	2.43	0.53
1:CA:922:G:N3	1:CA:1398:A:H2	2.07	0.53
43:BX:27:THR:CG2	43:BX:80:ILE:HG12	2.33	0.53
45:BZ:160:GLY:HA2	45:BZ:161:VAL:CG1	2.33	0.53
38:DS:95:HIS:N	38:DS:99:LYS:HB3	2.23	0.53
1:AA:160:A:C2	1:AA:343:U:H4'	2.43	0.53
29:DF:182:ASN:HD21	29:DF:185:ASP:CG	2.12	0.53
6:AF:30:LEU:HB3	6:AF:35:ALA:HB3	1.91	0.53
31:DH:43:VAL:HG12	31:DH:44:VAL:H	1.74	0.53
4:AD:120:LEU:HB3	4:AD:126:ILE:HD11	1.91	0.53
43:BX:25:LYS:HE2	43:BX:82:GLN:NE2	2.23	0.53
6:CF:61:LEU:HB3	6:CF:63:TYR:CE2	2.41	0.53
1:CA:1409:C:H42	1:CA:1491:G:H1	1.57	0.53
44:DY:76:CYS:SG	44:DY:99:CYS:HB2	2.48	0.53
25:BA:2011:U:OP1	42:BW:42:ARG:NH1	2.42	0.53
1:CA:1250:A:H4'	9:CI:67:GLY:HA2	1.90	0.53
1:CA:1070:U:H2'	1:CA:1071:C:H6	1.73	0.53
25:BA:29:U:H2'	25:BA:30:G:C8	2.44	0.53
25:BA:1257:C:H4'	29:BF:83:PHE:CD2	2.44	0.53
25:BA:652(D):C:H2'	25:BA:652(E):G:O4'	2.09	0.53
27:BD:5:LYS:HA	27:BD:17:THR:HG22	1.90	0.53
2:AB:109:SER:HA	2:AB:112:VAL:HG23	1.91	0.53
25:DA:1267:U:H2'	25:DA:1268:A:H8	1.74	0.53
13:AM:50:GLU:HA	13:AM:53:VAL:HG23	1.90	0.53
25:BA:2065:C:H2'	25:BA:2066:C:C6	2.44	0.53
8:AH:38:ILE:O	8:AH:42:GLU:HG2	2.09	0.53
28:DE:101:ARG:CZ	28:DE:171:GLU:HB2	2.39	0.53
5:CE:29:GLY:HA2	5:CE:46:GLY:O	2.09	0.53
40:BU:44:ASN:HD21	41:BV:75:PHE:HB3	1.73	0.53
32:DI:94:ALA:HA	32:DI:97:ILE:HB	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1470:G:H5''	25:BA:1471:A:OP1	2.09	0.53
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.44	0.53
36:BQ:137:TYR:HB3	45:BZ:76:LEU:HD21	1.91	0.53
20:AT:72:LEU:HD23	20:AT:73:HIS:N	2.24	0.53
30:DG:107:LEU:HD23	30:DG:111:LEU:HD12	1.90	0.53
25:BA:2543:G:H1'	25:BA:2766:G:H5'	1.91	0.53
25:DA:184:C:H2'	25:DA:185:U:C6	2.43	0.53
4:CD:25:ARG:HG2	4:CD:30:LYS:O	2.08	0.53
8:AH:82:HIS:O	8:AH:137:VAL:HA	2.09	0.53
1:CA:946:A:H2'	1:CA:947:G:C8	2.44	0.53
1:CA:188:C:H1'	20:CT:104:LEU:CB	2.38	0.53
25:BA:2567:G:H2'	25:BA:2568:C:C6	2.44	0.53
1:AA:1151:A:H5''	10:AJ:41:PRO:HA	1.90	0.53
45:DZ:18:LEU:HD23	45:DZ:25:PRO:HG3	1.91	0.53
43:BX:11:PRO:HB3	43:BX:92:LEU:HD11	1.89	0.53
25:DA:263:C:H2'	25:DA:264:C:O4'	2.09	0.53
1:AA:177:C:OP1	20:AT:65:LYS:NZ	2.32	0.53
3:AC:58:GLU:H	3:AC:65:ALA:HB3	1.73	0.53
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.72	0.53
32:DI:72:LEU:O	32:DI:74:ASN:N	2.38	0.53
1:CA:1053:G:N7	1:CA:1200:C:H5''	2.24	0.53
39:DT:53:ARG:O	39:DT:53:ARG:HG3	2.09	0.53
14:CN:25:VAL:HG22	14:CN:38:GLY:O	2.09	0.53
1:AA:189(C):C:H2'	1:AA:189(D):C:O4'	2.09	0.53
1:AA:49:U:O2'	1:AA:50:A:H2'	2.08	0.53
25:BA:1582:C:O2'	25:BA:1583:A:O5'	2.26	0.53
28:DE:107:THR:O	28:DE:190:GLY:HA2	2.08	0.53
45:BZ:152:ALA:HA	45:BZ:155:LEU:HB2	1.91	0.53
37:BR:67:LEU:HD13	37:BR:76:VAL:HG21	1.89	0.53
25:BA:2321:G:H5''	25:BA:2322:A:OP2	2.08	0.53
26:BB:105:A:OP1	45:BZ:72:ARG:NH1	2.41	0.53
5:AE:50:GLU:HB2	5:AE:53:LEU:HD22	1.91	0.53
1:AA:1164:G:C2'	1:AA:1165:C:H5'	2.38	0.53
25:DA:330:A:HO2'	25:DA:331:A:H8	1.57	0.53
31:DH:3:ARG:HG2	31:DH:6:ARG:CZ	2.38	0.53
27:DD:182:LEU:HD12	27:DD:272:ALA:HB3	1.90	0.53
7:AG:111:ARG:HB2	7:AG:119:ARG:HD2	1.91	0.53
25:DA:2527:C:C4	25:DA:2528:U:C5	2.97	0.53
25:DA:323:G:O2'	25:DA:1205:U:N3	2.35	0.53
25:BA:1430:C:H2'	25:BA:1431:U:H6	1.74	0.53
1:CA:192:U:H2'	1:CA:193:C:C6	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1453:U:OP1	37:BR:77:ARG:HD3	2.09	0.53
1:CA:115:G:H1'	1:CA:116:A:N7	2.23	0.53
1:AA:237:C:H5"	17:AQ:25:ARG:CZ	2.38	0.53
1:CA:202:U:H3'	1:CA:203:U:C6	2.44	0.53
25:BA:1720:U:OP2	58:BA:5303:HOH:O	2.19	0.53
35:BP:75:ILE:HD13	35:BP:77:ARG:NH1	2.24	0.53
2:CB:42:ILE:HG22	2:CB:43:ASP:H	1.73	0.53
36:DQ:111:GLU:O	36:DQ:115:MET:HG2	2.09	0.53
30:BG:12:TYR:HA	30:BG:16:ARG:HG3	1.91	0.53
25:BA:2272:U:H5"	25:BA:2273:A:OP1	2.08	0.53
25:BA:2273:A:O2'	25:BA:2274:A:H5'	2.09	0.53
3:AC:156:ARG:O	3:AC:158:GLY:N	2.42	0.53
25:DA:2345:G:OP2	52:D6:38:LYS:HG3	2.09	0.53
32:DI:72:LEU:C	32:DI:74:ASN:N	2.61	0.52
1:CA:1151:A:O2'	1:CA:1152:A:O5'	2.21	0.52
25:DA:994:C:H2'	25:DA:994:C:O2	2.09	0.52
1:AA:457:C:H2'	1:AA:458:C:H6	1.73	0.52
25:DA:1430:C:H2'	25:DA:1431:U:H6	1.72	0.52
1:AA:1089:G:H2'	1:AA:1090:U:H5'	1.91	0.52
1:AA:129(A):G:H22	1:AA:189(D):C:N4	2.07	0.52
25:DA:795:C:H2'	25:DA:796:C:C6	2.44	0.52
29:DF:129:PHE:CD2	29:DF:163:VAL:HG21	2.44	0.52
5:AE:139:LEU:HA	5:AE:142:LEU:HD12	1.90	0.52
37:BR:72:ASP:O	37:BR:76:VAL:HG23	2.09	0.52
25:DA:2351:G:HO2'	25:DA:2352:A:H8	1.54	0.52
33:BN:112:LEU:O	33:BN:112:LEU:HD12	2.09	0.52
25:BA:2690:C:H5"	25:BA:2872:G:H21	1.74	0.52
1:CA:928:G:H1	1:CA:1389:C:H42	1.57	0.52
2:CB:186:ALA:HB3	2:CB:197:VAL:HG11	1.89	0.52
36:DQ:63:LYS:HE3	36:DQ:65:PHE:CE1	2.44	0.52
25:BA:1865:G:N2	25:BA:1877:A:OP2	2.42	0.52
25:BA:1899:G:H2'	25:BA:1899:G:N3	2.24	0.52
25:DA:1739:U:HO2'	25:DA:1740:G:H8	1.57	0.52
25:BA:330:A:HO2'	25:BA:331:A:H8	1.53	0.52
1:AA:1179:A:H4'	9:AI:103:THR:HA	1.91	0.52
1:AA:221:C:H2'	1:AA:222:U:C6	2.44	0.52
28:BE:116:VAL:HG22	28:BE:120:TRP:HD1	1.74	0.52
27:BD:147:LEU:HD13	27:BD:155:LEU:HD11	1.90	0.52
4:AD:79:PHE:HE1	4:AD:204:ILE:HD13	1.73	0.52
1:CA:1241:G:H1	1:CA:1296:C:H42	1.55	0.52
25:BA:1629:U:H2'	25:BA:1630:G:C8	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BF:123:LEU:HD21	29:BF:199:TRP:CZ3	2.44	0.52
1:CA:296:U:O2'	1:CA:556:C:O2	2.25	0.52
25:BA:1935:G:N2	25:BA:1964:G:H5'	2.24	0.52
42:BW:13:SER:HB3	42:BW:16:LYS:HD2	1.90	0.52
1:CA:663:A:O3'	18:CR:64:ARG:NH2	2.42	0.52
2:CB:57:PHE:O	2:CB:61:LEU:N	2.42	0.52
46:D0:47:PRO:HA	46:D0:51:VAL:HG12	1.91	0.52
25:DA:2273:A:H2'	25:DA:2274:A:C8	2.43	0.52
9:CI:17:VAL:HG21	9:CI:80:GLY:C	2.29	0.52
45:BZ:128:VAL:HG23	45:BZ:161:VAL:N	2.25	0.52
1:CA:1052:U:H2'	1:CA:1055:A:OP1	2.09	0.52
1:AA:373:A:O2'	1:AA:481:G:N2	2.42	0.52
49:D3:26:LEU:HD21	49:D3:46:ASN:HB2	1.91	0.52
1:CA:1144:G:N2	1:CA:1146:A:H62	2.08	0.52
13:AM:59:TYR:HD1	13:AM:63:THR:HG1	1.47	0.52
1:CA:512:U:H2'	1:CA:513:C:H6	1.74	0.52
1:CA:939:G:H5''	7:CG:102:ARG:HH12	1.73	0.52
25:DA:2647:U:H2'	25:DA:2648:C:C6	2.44	0.52
25:DA:2275:C:O2'	36:DQ:85:LYS:N	2.35	0.52
19:CS:49:ILE:HG13	19:CS:62:ILE:HD11	1.90	0.52
25:DA:2869:G:H2'	25:DA:2870:C:O4'	2.09	0.52
33:BN:47:ALA:HB2	33:BN:112:LEU:HD11	1.90	0.52
4:AD:149:ALA:O	4:AD:152:SER:N	2.38	0.52
25:DA:1506:C:H2'	25:DA:1507:A:H5'	1.90	0.52
25:BA:1818:U:H2'	27:BD:157:ARG:HG3	1.90	0.52
25:BA:2483:C:O2	36:BQ:124:LYS:HE3	2.09	0.52
12:CL:53:ARG:NH1	12:CL:92:ASP:OD2	2.42	0.52
45:BZ:121:HIS:HB3	45:BZ:123:ASP:O	2.09	0.52
25:BA:64:A:O3'	43:BX:71:GLY:HA3	2.10	0.52
25:DA:636:G:C2	35:DP:115:LEU:HD11	2.44	0.52
1:AA:313:A:H2'	1:AA:314:C:C6	2.44	0.52
25:DA:41:C:H2'	25:DA:42:G:H8	1.75	0.52
1:CA:1057:G:H2'	1:CA:1058:G:O4'	2.09	0.52
25:DA:1477:A:H2'	25:DA:1478:G:O4'	2.09	0.52
1:CA:397:A:H3'	1:CA:397:A:N3	2.24	0.52
1:CA:1135:U:H2'	1:CA:1137:C:O2	2.10	0.52
1:AA:1362:C:H2'	1:AA:1363:C:H5''	1.90	0.52
34:BO:24:VAL:HA	34:BO:39:ILE:HG22	1.91	0.52
35:BP:55:ARG:HG2	35:BP:56:SER:N	2.24	0.52
20:CT:49:ALA:HB2	20:CT:92:LEU:HD22	1.91	0.52
29:DF:28:ILE:HA	29:DF:112:MET:HG2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2019:A:H2'	25:DA:2020:A:O5'	2.09	0.52
2:CB:48:MET:HA	2:CB:51:LEU:HB2	1.91	0.52
13:CM:34:LEU:O	13:CM:38:GLY:N	2.42	0.52
5:CE:126:ARG:HG2	5:CE:126:ARG:HH11	1.75	0.52
30:BG:82:LEU:HD23	30:BG:86:MET:CB	2.39	0.52
25:BA:1692:U:O2'	25:BA:1693:U:H2'	2.10	0.52
1:CA:833:U:H2'	1:CA:834:C:H6	1.74	0.52
1:CA:438:G:O2'	1:CA:494:U:O4	2.23	0.52
10:CJ:8:LEU:HD11	10:CJ:20:ALA:HB2	1.91	0.52
25:BA:34:C:H4'	25:BA:35:G:OP2	2.10	0.52
6:CF:80:ARG:HH21	6:CF:80:ARG:HG3	1.73	0.52
26:DB:6:C:O2'	38:DS:29:PHE:HE1	1.93	0.52
25:DA:1849:G:H2'	25:DA:1850:G:H8	1.74	0.52
1:CA:1502:A:H4'	1:CA:1503:A:OP2	2.09	0.52
20:AT:12:ALA:O	20:AT:15:ARG:N	2.42	0.52
1:CA:148:G:H2'	1:CA:149:A:C8	2.43	0.52
1:CA:131:C:H2'	1:CA:132:C:C6	2.45	0.52
25:DA:9:U:O2'	25:DA:10:G:OP1	2.24	0.52
25:BA:1359:A:C2	25:BA:1372:U:O4	2.62	0.52
25:BA:2405:G:H2'	25:BA:2411:A:H62	1.74	0.52
25:BA:2292:C:P	38:BS:17:ARG:HH22	2.32	0.52
22:AY:106:ARG:HG2	22:AY:107:PRO:HA	1.91	0.52
49:B3:54:VAL:HG12	49:B3:55:ARG:N	2.23	0.52
1:CA:433:C:H2'	1:CA:434:U:H6	1.75	0.52
25:DA:747:U:O2	25:DA:2014:A:H1'	2.09	0.52
26:DB:114:C:H4'	38:DS:46:VAL:HG13	1.91	0.52
33:BN:38:HIS:CD2	33:BN:39:ARG:HG2	2.44	0.52
25:DA:1819:A:H4'	25:DA:1820:U:O5'	2.08	0.52
1:CA:1098:C:H2'	1:CA:1099:G:O4'	2.09	0.52
1:AA:1300:G:O2'	1:AA:1301:U:P	2.67	0.52
28:BE:101:ARG:CZ	28:BE:171:GLU:HB2	2.40	0.52
25:DA:1652:A:C2'	25:DA:1653:G:H5'	2.39	0.52
28:BE:170:LEU:HB3	28:BE:184:VAL:CG2	2.39	0.52
25:BA:234:C:H2'	25:BA:235:U:O4'	2.10	0.52
25:BA:89:G:H3'	25:BA:90:U:H5''	1.90	0.52
25:BA:2233:U:H2'	25:BA:2234:G:C8	2.44	0.52
38:DS:48:LEU:HD12	38:DS:48:LEU:H	1.74	0.52
25:BA:1607:C:N4	25:BA:1622:G:OP2	2.32	0.52
17:AQ:11:VAL:HG23	17:AQ:20:THR:HB	1.90	0.52
1:CA:1411:C:H2'	1:CA:1412:C:C6	2.45	0.52
25:BA:1789:A:H5''	27:BD:220:HIS:O	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:979:C:H42	14:AN:18:VAL:HB	1.75	0.52
5:CE:100:VAL:HA	5:CE:118:ILE:HG22	1.92	0.52
25:BA:2845:G:H5'	39:BT:54:ARG:O	2.10	0.52
52:B6:47:THR:HB	52:B6:49:HIS:CE1	2.45	0.52
1:CA:737:A:H2'	1:CA:738:C:H6	1.74	0.52
1:CA:243:A:H4'	1:CA:244:U:C5'	2.39	0.52
1:AA:928:G:H1	1:AA:1389:C:N4	2.05	0.52
25:DA:2302:G:H2'	25:DA:2303:G:H8	1.75	0.52
25:DA:2262:U:O2'	25:DA:2263:C:H5'	2.09	0.52
25:BA:868:U:C4	25:BA:869:G:N7	2.78	0.52
42:BW:79:GLY:CA	42:BW:100:THR:HG22	2.39	0.52
25:BA:1878:G:H2'	25:BA:1879:C:H6	1.74	0.52
31:DH:149:ARG:HA	31:DH:162:ILE:HG21	1.92	0.52
36:DQ:42:ILE:HD13	36:DQ:97:VAL:CG2	2.39	0.52
25:BA:197:A:N6	25:BA:2430:A:H2'	2.25	0.52
13:AM:91:ARG:HB2	13:AM:98:VAL:HG23	1.91	0.52
1:AA:1245:A:C6	1:AA:1293:G:C6	2.97	0.52
1:AA:545:C:OP2	4:AD:62:GLN:NE2	2.42	0.52
1:CA:664:G:P	18:CR:64:ARG:HH21	2.32	0.52
29:BF:28:ILE:HD13	29:BF:119:ARG:HH21	1.75	0.52
25:DA:244:A:C2	25:DA:255:A:C4	2.97	0.52
4:AD:33:MET:SD	4:AD:37:PRO:HA	2.50	0.52
25:DA:632:A:H2'	25:DA:633:A:C8	2.45	0.52
46:D0:29:GLN:O	46:D0:67:VAL:HG23	2.10	0.52
16:AP:23:ASP:OD1	16:AP:25:ARG:HG2	2.09	0.52
1:AA:1508:G:H2'	1:AA:1509:C:O4'	2.10	0.52
1:AA:949:A:H1'	1:AA:1364:U:N3	2.25	0.52
23:CV:36:U:H2'	23:CV:37:A:O4'	2.10	0.52
28:DE:175:VAL:HG23	28:DE:177:PRO:HD3	1.92	0.52
30:DG:16:ARG:NE	30:DG:31:VAL:HG21	2.25	0.52
25:DA:2206:G:C3'	25:DA:2207:G:C8	2.91	0.52
25:BA:2320:A:H2'	25:BA:2320:A:N3	2.24	0.52
33:DN:24:GLY:HA2	33:DN:27:ALA:CB	2.37	0.52
38:BS:96:GLY:HA2	38:BS:97:ARG:C	2.29	0.52
1:CA:874:G:H2'	1:CA:875:C:C6	2.44	0.52
25:DA:300:A:P	44:DY:86:ARG:NH2	2.80	0.52
25:BA:615:G:OP2	29:BF:43:LYS:NZ	2.36	0.52
1:AA:1226:C:H4'	19:AS:80:TYR:OH	2.09	0.52
34:BO:47:ILE:HB	34:BO:48:PRO:HD2	1.91	0.52
1:CA:401:C:H2'	1:CA:402:G:C8	2.44	0.52
1:CA:737:A:H2'	1:CA:738:C:C6	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1170:G:N2	25:BA:1180:C:C2	2.77	0.52
1:CA:1131:G:H2'	1:CA:1132:C:C6	2.45	0.52
25:DA:142:A:HO2'	25:DA:1407:C:HO2'	1.58	0.52
14:CN:27:CYS:SG	14:CN:43:CYS:SG	3.05	0.52
1:AA:991:U:O4	1:AA:1212:U:O2'	2.28	0.52
25:DA:1607:C:N4	25:DA:1622:G:OP2	2.43	0.52
25:BA:1249:U:P	58:BA:5376:HOH:O	2.68	0.52
1:AA:587:G:O2'	1:AA:588:G:OP2	2.24	0.52
1:CA:1170:A:C6	1:CA:1171:G:H1'	2.45	0.52
25:DA:608:A:H2'	25:DA:609:A:H8	1.73	0.52
1:AA:617:G:C2	1:AA:618:C:C5	2.98	0.52
1:CA:973:G:H3'	1:CA:974:A:H5''	1.90	0.52
30:DG:7:LEU:HD22	30:DG:100:TRP:CE3	2.44	0.52
25:DA:1537:G:H2'	25:DA:1538:G:H8	1.74	0.52
1:AA:1220:G:O3'	19:AS:36:ARG:HD3	2.10	0.52
4:CD:17:VAL:HG22	4:CD:18:LYS:H	1.75	0.52
4:CD:64:LEU:HD22	4:CD:198:VAL:HG11	1.92	0.52
25:BA:1497:U:H5''	25:BA:1498:C:H5	1.74	0.52
25:DA:195:A:H61	25:DA:198:C:H3'	1.75	0.52
2:AB:86:GLU:C	2:AB:89:GLY:H	2.13	0.52
50:D4:3:GLU:H	50:D4:3:GLU:CD	2.12	0.52
25:DA:2576:G:H1'	58:DA:3853:HOH:O	2.10	0.52
1:CA:538:G:OP2	12:CL:115:LYS:HB2	2.09	0.52
3:AC:134:ILE:HD11	3:AC:153:VAL:HG23	1.91	0.52
1:CA:872:A:C4	1:CA:874:G:N7	2.78	0.52
25:BA:1041:C:N4	25:BA:1114:G:H1	2.05	0.52
4:CD:189:PRO:CB	4:CD:194:LEU:HD21	2.38	0.52
25:BA:1903:G:OP1	27:BD:241:PRO:HB2	2.10	0.52
1:AA:406:G:H21	4:AD:119:GLN:HE22	1.57	0.52
1:AA:460:G:C6	1:AA:470:C:H5''	2.44	0.52
1:AA:598:U:H2'	1:AA:599:C:C6	2.44	0.52
31:BH:149:ARG:NH1	31:BH:149:ARG:HG3	2.24	0.52
25:DA:1472:A:H61	25:DA:1519:G:H1'	1.74	0.52
37:DR:52:ILE:HB	37:DR:94:TYR:HD1	1.73	0.52
36:DQ:21:THR:HG21	36:DQ:101:ARG:HH11	1.74	0.52
30:DG:3:LEU:HD13	50:D4:25:TYR:CZ	2.45	0.52
1:AA:1151:A:C5'	10:AJ:41:PRO:HA	2.40	0.52
25:DA:1653:G:C6	37:DR:9:LYS:HB2	2.45	0.52
39:DT:127:ALA:HA	39:DT:129:ARG:N	2.25	0.52
34:BO:73:ASP:OD2	34:BO:75:SER:HB3	2.10	0.52
33:BN:42:TRP:HA	33:BN:48:MET:SD	2.50	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:878:G:H5'	8:AH:89:PRO:HG2	1.92	0.52
15:CO:67:LEU:O	15:CO:71:GLN:HB2	2.10	0.52
18:AR:74:ARG:HG3	18:AR:79:LEU:HB2	1.91	0.52
25:DA:698:C:O2'	25:DA:734:A:N6	2.43	0.52
25:DA:1198:U:H2'	25:DA:1199:U:H6	1.75	0.52
26:BB:78:A:C2	26:BB:100:A:C4	2.98	0.52
7:AG:57:GLU:O	7:AG:59:LEU:N	2.43	0.52
1:CA:500:G:N2	1:CA:546:G:H1'	2.25	0.52
1:AA:320:C:H42	1:AA:333:G:H1	1.56	0.52
1:CA:1281:U:H3'	1:CA:1281:U:C6	2.45	0.52
1:AA:1278:U:H5''	1:AA:1278:U:H6	1.75	0.52
25:BA:848:G:N9	25:BA:933:A:H8	2.08	0.52
8:CH:20:TYR:HD1	8:CH:65:TYR:CD2	2.27	0.52
25:BA:1300:U:H4'	25:BA:1301:A:C5'	2.36	0.52
25:BA:2712(A):A:H5''	25:BA:2713:A:OP2	2.09	0.52
25:BA:2712:U:OP1	25:BA:2714:G:H4'	2.10	0.52
25:DA:479:A:H1'	25:DA:480:A:H5''	1.92	0.52
2:CB:171:ALA:HA	2:CB:174:VAL:HG23	1.92	0.52
1:CA:751:U:H1'	15:CO:24:SER:H	1.75	0.52
45:DZ:155:LEU:HB3	45:DZ:157:LEU:HD12	1.91	0.52
1:CA:1218:C:H2'	1:CA:1219:U:C6	2.45	0.52
36:DQ:63:LYS:O	36:DQ:107:ALA:N	2.43	0.52
46:D0:26:TYR:O	46:D0:29:GLN:HB2	2.09	0.52
1:AA:402:G:OP1	4:AD:74:GLN:HG3	2.09	0.52
51:D5:41:PRO:O	51:D5:44:THR:OG1	2.27	0.52
29:DF:7:TYR:OH	29:DF:119:ARG:HD3	2.09	0.52
7:AG:153:HIS:CE1	11:AK:58:PRO:HD2	2.45	0.52
25:DA:1579:A:H2'	25:DA:1580:A:C8	2.44	0.52
8:CH:77:GLU:HG3	8:CH:78:GLN:N	2.25	0.52
1:CA:1416:G:H1	1:CA:1484:C:H42	1.58	0.52
5:CE:33:VAL:HG21	5:CE:109:ILE:HA	1.92	0.52
25:BA:141:A:C8	25:BA:1408:C:O2'	2.54	0.52
26:BB:86:G:N2	26:BB:91:C:N3	2.53	0.52
25:DA:71:A:C2	43:DX:31:HIS:HE1	2.28	0.52
44:DY:20:TYR:CD2	44:DY:42:VAL:HG13	2.45	0.52
28:BE:29:GLY:H	28:BE:93:VAL:HG12	1.75	0.52
27:DD:71:ASP:CG	27:DD:103:ARG:HH22	2.14	0.52
27:BD:134:ARG:HD3	27:BD:135:PHE:CZ	2.45	0.52
17:AQ:82:MET:O	17:AQ:86:GLU:N	2.32	0.52
10:CJ:11:PHE:HE2	10:CJ:67:THR:HG22	1.75	0.52
25:BA:286:C:H2'	25:BA:287:C:H6	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BF:22:ALA:HB1	29:BF:24:LEU:HB2	1.91	0.52
1:AA:509:A:N3	1:AA:543:C:O2'	2.36	0.52
33:BN:39:ARG:NH2	33:BN:41:ASP:OD2	2.42	0.52
43:DX:35:THR:HG23	43:DX:38:GLU:H	1.74	0.52
3:CC:132:ARG:O	3:CC:136:GLN:HB2	2.10	0.52
35:DP:29:LYS:HG2	35:DP:30:THR:N	2.24	0.52
29:DF:51:THR:HG23	29:DF:92:PRO:HG2	1.92	0.52
1:CA:545:C:O2'	1:CA:549:C:OP1	2.28	0.52
25:BA:2052:G:OP2	58:BA:5357:HOH:O	2.18	0.52
1:CA:1381:U:H2'	1:CA:1381:U:O2	2.09	0.52
25:BA:1761:C:H3'	25:BA:1762:A:H5''	1.92	0.52
49:B3:23:LEU:HD13	49:B3:50:VAL:HG11	1.91	0.52
25:BA:673:C:H5''	29:BF:81:PRO:HD2	1.91	0.52
1:AA:501:C:H2'	1:AA:502:G:H8	1.75	0.52
25:BA:1341:U:O2	43:BX:80:ILE:HD12	2.10	0.51
9:CI:28:VAL:HA	9:CI:63:ILE:O	2.10	0.51
22:AY:21:ARG:HD3	22:AY:31:ASN:O	2.11	0.51
25:DA:864:G:C6	25:DA:865:C:N4	2.78	0.51
1:AA:393:A:OP2	16:AP:12:LYS:HD2	2.10	0.51
25:BA:1289:C:H2'	25:BA:1290:C:H6	1.75	0.51
25:DA:827:U:H4'	25:DA:828:U:C5	2.45	0.51
36:DQ:57:HIS:HD2	36:DQ:117:ALA:HB2	1.72	0.51
25:DA:2316:C:O2'	30:DG:128:ARG:NH1	2.42	0.51
25:BA:53:A:H61	25:BA:117:G:H1'	1.75	0.51
25:BA:414:C:H2'	25:BA:415:A:C8	2.44	0.51
37:DR:103:ARG:HD3	37:DR:108:GLY:O	2.10	0.51
25:DA:972:G:OP2	25:DA:973:A:O2'	2.20	0.51
50:B4:42:PHE:HB3	50:B4:43:TYR:CD1	2.44	0.51
25:DA:2464:C:O2'	25:DA:2465:C:H5''	2.11	0.51
31:BH:4:ILE:O	31:BH:69:ARG:HG2	2.09	0.51
42:BW:40:ASN:O	42:BW:41:LYS:HG3	2.09	0.51
2:AB:97:TRP:HH2	2:AB:176:GLU:CG	2.23	0.51
1:CA:793:U:O2	1:CA:1516:G:H4'	2.10	0.51
25:BA:1379:A:H4'	25:BA:1380:G:OP2	2.10	0.51
25:BA:2869:G:H2'	25:BA:2870:C:O4'	2.09	0.51
1:AA:763:G:H2'	1:AA:764:C:H6	1.75	0.51
25:DA:363(E):U:O2'	25:DA:363(F):A:OP1	2.24	0.51
25:BA:1491:G:C2'	25:BA:1492:G:H5'	2.40	0.51
25:BA:2335:A:C8	25:BA:2337:G:C5	2.99	0.51
19:CS:67:VAL:HG23	19:CS:68:GLY:H	1.75	0.51
25:BA:888:C:H4'	25:BA:889:C:OP1	2.08	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:944:G:H5''	25:DA:945:A:O5'	2.10	0.51
30:BG:28:VAL:O	30:BG:31:VAL:HG13	2.10	0.51
30:DG:16:ARG:O	30:DG:20:ILE:HG13	2.10	0.51
1:AA:666:G:H5'	1:AA:726:C:H1'	1.92	0.51
25:DA:1371:G:H2'	25:DA:1372:U:H5	1.74	0.51
16:CP:43:LYS:C	16:CP:45:THR:H	2.13	0.51
25:DA:1434:A:H61	25:DA:1558:A:H62	1.58	0.51
6:AF:1:MET:HA	6:AF:67:MET:O	2.10	0.51
1:CA:189(D):C:N4	1:CA:189(E):U:C2	2.78	0.51
1:CA:1142:G:H3'	1:CA:1143:G:C8	2.45	0.51
14:CN:24:CYS:HB3	14:CN:28:GLY:HA2	1.91	0.51
15:CO:78:TYR:O	15:CO:82:ILE:HG12	2.10	0.51
1:AA:197:A:N6	1:AA:221:C:H5'	2.25	0.51
27:DD:221:VAL:HG23	27:DD:226:MET:CE	2.40	0.51
25:BA:593:G:C4'	54:B8:4:MET:HE2	2.40	0.51
20:AT:73:HIS:C	20:AT:74:LYS:HG2	2.31	0.51
1:CA:1119:C:OP1	9:CI:83:ARG:NH1	2.38	0.51
25:BA:576:U:H2'	25:BA:577:G:C8	2.45	0.51
25:BA:2065:C:H2'	25:BA:2066:C:H6	1.75	0.51
12:CL:79:GLU:O	12:CL:80:HIS:HB2	2.10	0.51
25:DA:610:G:H2'	25:DA:611:C:C6	2.45	0.51
25:BA:2479:G:OP1	25:BA:2537:U:H1'	2.10	0.51
4:CD:15:GLU:OE2	4:CD:66:ARG:NH1	2.43	0.51
1:AA:410:G:H5''	1:AA:411:A:OP1	2.10	0.51
25:BA:1405:U:H2'	25:BA:1406:U:C6	2.45	0.51
25:DA:2238:G:N3	25:DA:2238:G:H2'	2.26	0.51
4:CD:4:TYR:CD2	4:CD:4:TYR:C	2.83	0.51
25:BA:250:G:OP2	54:B8:13:ARG:NH2	2.42	0.51
25:DA:84:A:H5''	44:DY:8:LYS:HG2	1.92	0.51
2:CB:100:GLY:O	2:CB:108:ILE:HG13	2.09	0.51
35:BP:38:GLN:O	35:BP:39:LYS:HB3	2.09	0.51
25:BA:71:A:C8	25:BA:71:A:H5'	2.46	0.51
26:BB:19:G:H5'	26:BB:20:C:OP2	2.10	0.51
42:DW:54:ALA:HB1	42:DW:107:LEU:HD22	1.92	0.51
25:BA:733:G:OP2	58:BA:5174:HOH:O	2.18	0.51
1:AA:820:U:H4'	1:AA:821:G:OP2	2.10	0.51
25:DA:2022:U:O2'	25:DA:2617:C:H5'	2.10	0.51
1:AA:250:A:H4'	1:AA:251:G:O5'	2.10	0.51
25:DA:1267:U:H2'	25:DA:1268:A:C8	2.46	0.51
1:AA:642:A:N3	8:AH:113:SER:OG	2.44	0.51
1:AA:559:A:OP2	5:AE:126:ARG:NH2	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:198:G:H2'	1:AA:199:G:C8	2.45	0.51
1:CA:164:U:H2'	1:CA:165:C:C6	2.45	0.51
25:DA:1480:G:C6	25:DA:1481:U:N3	2.78	0.51
1:CA:724:G:C2	1:CA:725:G:C8	2.99	0.51
38:DS:4:LEU:HD11	38:DS:12:PHE:HE1	1.75	0.51
33:DN:19:GLU:HG3	33:DN:20:GLY:H	1.75	0.51
26:DB:55:U:H1'	30:DG:29:TRP:HE1	1.75	0.51
25:BA:652(R):C:H1'	25:BA:652(S):C:C6	2.45	0.51
9:CI:114:TYR:HE1	10:CJ:60:ARG:H	1.55	0.51
1:CA:1151:A:H5'	10:CJ:40:LEU:O	2.11	0.51
32:BI:129:THR:HA	32:BI:138:ILE:O	2.10	0.51
1:CA:97:G:O2'	1:CA:98:G:H5''	2.11	0.51
25:BA:2291:U:O2'	25:BA:2374:C:O2	2.28	0.51
15:AO:39:LEU:HD13	15:AO:56:LEU:HB2	1.92	0.51
1:CA:589:C:H2'	1:CA:590:C:H6	1.76	0.51
12:AL:71:PRO:HG2	12:AL:102:ARG:HG3	1.91	0.51
23:CV:16:C:H5'	23:CV:59:A:N1	2.25	0.51
25:DA:2505:G:O6	25:DA:2576:G:H2'	2.10	0.51
28:DE:108:SER:HB3	28:DE:165:VAL:HG21	1.91	0.51
25:BA:104:U:H5''	25:BA:105:C:OP2	2.11	0.51
3:CC:20:SER:OG	3:CC:40:ARG:NH2	2.37	0.51
36:DQ:48:GLU:O	36:DQ:52:VAL:HG23	2.11	0.51
1:AA:1132:C:H2'	1:AA:1133:G:C8	2.46	0.51
42:BW:29:LEU:HD12	42:BW:29:LEU:O	2.11	0.51
25:BA:2722:G:H2'	25:BA:2723:C:C6	2.45	0.51
33:DN:38:HIS:ND1	33:DN:39:ARG:HG3	2.25	0.51
1:AA:227:G:O2'	16:AP:62:VAL:HG21	2.11	0.51
1:CA:978:A:O2'	1:CA:1322:C:N3	2.35	0.51
36:BQ:12:GLN:HG2	36:BQ:73:PRO:HD2	1.91	0.51
25:DA:1529:G:O6	25:DA:1541:G:N2	2.42	0.51
40:BU:65:ILE:HD11	40:BU:95:LEU:HB3	1.91	0.51
25:BA:1210:A:C8	25:BA:1210:A:H5'	2.39	0.51
2:CB:102:LEU:HB3	2:CB:180:LEU:CD1	2.40	0.51
30:BG:41:GLN:NE2	30:BG:154:GLY:O	2.43	0.51
25:DA:272(G):C:N4	25:DA:363(C):G:H1	2.08	0.51
25:BA:1945:G:H2'	25:BA:1946:U:C6	2.46	0.51
1:AA:1138:G:C6	1:AA:1140:C:H1'	2.46	0.51
31:BH:94:TYR:HE1	31:BH:108:GLY:N	2.07	0.51
1:AA:985:C:C2	1:AA:1221:G:N2	2.78	0.51
1:AA:129(A):G:H5'	1:AA:189(H):G:H5'	1.91	0.51
20:AT:77:ALA:O	20:AT:81:LYS:HG3	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:100:ARG:NH1	4:CD:137:SER:HA	2.25	0.51
23:CV:47:U:H3'	23:CV:48:C:C5'	2.40	0.51
25:DA:1514:U:H2'	25:DA:1515:G:C8	2.45	0.51
26:DB:94:C:H2'	26:DB:95:C:H6	1.75	0.51
25:DA:1754:C:OP1	39:DT:96:ARG:NH1	2.41	0.51
42:DW:72:LYS:N	42:DW:106:ILE:O	2.35	0.51
25:DA:1257:C:H4'	29:DF:83:PHE:CE2	2.46	0.51
2:AB:106:LYS:O	2:AB:110:GLN:NE2	2.44	0.51
25:DA:1945:G:H2'	25:DA:1946:U:H6	1.75	0.51
25:DA:57:C:H2'	25:DA:58:G:O4'	2.10	0.51
15:CO:8:LYS:O	15:CO:12:ILE:HG13	2.10	0.51
47:D1:67:ILE:N	47:D1:68:PRO:HD2	2.25	0.51
18:CR:53:ARG:HA	18:CR:56:THR:OG1	2.10	0.51
1:AA:926:G:C6	1:AA:1505:G:C6	2.98	0.51
1:CA:1126:U:H6	1:CA:1126:U:P	2.34	0.51
26:BB:8:U:H5'	26:BB:9:G:OP2	2.11	0.51
9:CI:105:ASP:HB2	9:CI:107:ARG:HD3	1.93	0.51
1:CA:1206:G:C6	1:CA:1207:G:C5	2.98	0.51
25:DA:2820:A:C5	37:DR:4:LEU:HD11	2.46	0.51
41:DV:57:VAL:HG12	41:DV:99:ILE:HG23	1.93	0.51
1:CA:889:A:H4'	1:CA:890:G:OP1	2.10	0.51
30:DG:101:ILE:HG21	50:D4:25:TYR:HB2	1.91	0.51
49:D3:44:ARG:O	49:D3:48:GLU:HG2	2.10	0.51
11:AK:18:ARG:HB2	11:AK:33:THR:OG1	2.10	0.51
38:DS:26:LEU:HD22	38:DS:87:PHE:CD1	2.45	0.51
6:AF:91:VAL:HG22	18:AR:72:ARG:HH21	1.74	0.51
1:CA:693:G:H2'	1:CA:694:A:C8	2.46	0.51
32:BI:11:ASN:O	32:BI:12:LEU:HD23	2.10	0.51
25:DA:2777:G:C5'	25:DA:2778:A:H5'	2.37	0.51
7:AG:146:GLU:O	7:AG:148:ASN:N	2.44	0.51
52:B6:35:GLU:O	52:B6:36:LEU:HG	2.10	0.51
47:B1:21:ARG:HG2	47:B1:21:ARG:NH1	2.26	0.51
25:DA:192:C:O2'	25:DA:802:A:N3	2.42	0.51
45:BZ:80:ARG:HB3	45:BZ:82:ARG:HG3	1.92	0.51
36:DQ:43:THR:N	36:DQ:46:GLN:OE1	2.31	0.51
25:DA:1384:A:O2'	25:DA:1404:C:O2	2.25	0.51
8:CH:4:ASP:OD1	8:CH:85:ARG:HD2	2.10	0.51
5:AE:15:ARG:NH2	22:AY:129:LYS:HG3	2.25	0.51
1:AA:827:U:H5'	1:AA:828:A:OP2	2.10	0.51
39:DT:127:ALA:HA	39:DT:129:ARG:H	1.75	0.51
34:BO:116:SER:OG	34:BO:117:LEU:N	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DN:97:ARG:O	33:DN:100:GLU:N	2.43	0.51
32:BI:59:ALA:O	32:BI:62:LYS:N	2.44	0.51
25:DA:267:C:H42	25:DA:425:G:H1	1.58	0.51
40:BU:58:ARG:HA	40:BU:61:TRP:CE3	2.46	0.51
11:AK:70:LYS:HB3	11:AK:70:LYS:NZ	2.26	0.51
30:DG:167:GLU:HA	30:DG:170:ARG:HB2	1.92	0.51
25:DA:307:G:N2	25:DA:310:A:O5'	2.43	0.51
1:CA:1370:G:C8	9:CI:109:VAL:HG11	2.46	0.51
25:DA:954:G:O2'	25:DA:2274:A:N1	2.41	0.51
22:AY:38:HIS:O	22:AY:73:LYS:HA	2.10	0.51
30:DG:64:THR:HG22	30:DG:94:LEU:HD11	1.91	0.51
1:CA:1365:G:H2'	1:CA:1366:C:O4'	2.11	0.51
25:DA:1558:A:C4'	25:DA:1559:G:O5'	2.56	0.51
25:BA:2040:C:H2'	25:BA:2041:U:O4'	2.11	0.51
48:B2:16:LEU:HB3	48:B2:20:GLU:HB2	1.92	0.51
1:CA:939:G:H5''	7:CG:102:ARG:HH22	1.75	0.51
1:CA:1222:G:C6	1:CA:1223:C:C4	2.99	0.51
1:AA:153:C:H42	1:AA:169:C:H42	1.57	0.51
33:DN:47:ALA:HB2	33:DN:112:LEU:HD11	1.92	0.51
29:BF:117:ARG:HH21	29:BF:187:VAL:HA	1.75	0.51
49:D3:6:VAL:HG12	49:D3:56:VAL:HG22	1.93	0.51
28:DE:9:VAL:HG13	28:DE:25:VAL:O	2.10	0.51
17:CQ:67:LYS:HA	17:CQ:70:ARG:HH12	1.75	0.51
38:DS:41:ASP:OD2	38:DS:44:LYS:HD3	2.11	0.51
28:BE:16:ARG:O	28:BE:16:ARG:HG3	2.11	0.51
25:BA:1510:G:H2'	25:BA:1511:C:C6	2.45	0.51
1:CA:963:G:H4'	58:CA:2207:HOH:O	2.11	0.51
30:DG:125:PHE:HB3	30:DG:166:ASP:OD2	2.11	0.51
1:AA:1258:G:H1	1:AA:1277:C:H42	1.59	0.51
22:AY:20:ILE:O	22:AY:35:THR:HA	2.11	0.51
22:AY:21:ARG:HA	22:AY:35:THR:N	2.25	0.51
25:BA:528:A:C2	25:BA:2042:A:H2'	2.45	0.51
2:AB:54:THR:HG21	2:AB:201:ILE:HD11	1.92	0.51
25:DA:2055:C:H5'	25:DA:2056:G:H5''	1.92	0.51
22:AY:61:HIS:HB3	22:AY:64:ILE:CG2	2.41	0.51
8:AH:87:SER:HA	8:AH:93:VAL:CG2	2.40	0.51
25:DA:1788:C:OP1	27:DD:222:ARG:NH2	2.44	0.51
25:DA:1169:G:H2'	25:DA:1170:G:O4'	2.11	0.51
25:DA:328:U:H4'	44:DY:68:HIS:CD2	2.46	0.51
29:BF:7:TYR:CD2	29:BF:24:LEU:HB3	2.46	0.51
25:DA:1589:C:H2'	25:DA:1590:U:C6	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2833:G:N3	25:DA:2833:G:O2'	2.43	0.51
1:AA:972:C:C2'	10:AJ:55:LYS:HB2	2.41	0.51
26:DB:116:G:H8	26:DB:116:G:OP2	1.93	0.51
5:CE:41:VAL:HG23	5:CE:67:VAL:HG13	1.93	0.51
1:CA:232:G:H1'	1:CA:262:A:N1	2.25	0.51
30:BG:131:TYR:O	30:BG:159:VAL:HG12	2.10	0.51
25:DA:1668:A:H4'	25:DA:1669:A:O5'	2.10	0.51
3:AC:43:LEU:HD13	3:AC:47:LEU:HD12	1.91	0.51
44:BY:91:GLU:C	44:BY:93:GLY:HA2	2.31	0.51
31:BH:86:GLU:HB2	31:BH:165:ALA:HB2	1.92	0.51
25:DA:271(J):C:O2'	25:DA:271(K):U:OP2	2.21	0.51
10:AJ:64:GLU:HB3	14:AN:59:ALA:HB2	1.93	0.51
1:CA:1225:A:H2'	1:CA:1225:A:N3	2.26	0.51
1:AA:720:C:H6	1:AA:720:C:O5'	1.93	0.51
1:AA:165:C:H2'	1:AA:166:G:H8	1.76	0.51
26:DB:79:C:O5'	26:DB:79:C:H6	1.94	0.51
32:BI:124:GLY:H	32:BI:144:VAL:HG13	1.76	0.51
36:DQ:114:ALA:O	36:DQ:118:LEU:HB2	2.11	0.51
1:CA:418:C:H1'	1:CA:540:G:O2'	2.11	0.51
27:DD:68:LYS:O	27:DD:69:ARG:HB2	2.10	0.51
14:CN:40:CYS:O	14:CN:43:CYS:HB3	2.11	0.51
2:CB:134:GLU:HA	2:CB:137:ARG:NE	2.26	0.51
1:CA:734:G:H21	18:CR:75:ILE:HD11	1.75	0.51
1:AA:915:A:H3'	1:AA:916:G:H5''	1.92	0.51
23:AV:47:U:H5'	23:AV:48:C:O5'	2.11	0.51
1:CA:202:U:H5''	1:CA:203:U:H5	1.75	0.51
34:DO:15:GLY:O	34:DO:47:ILE:HG12	2.11	0.51
50:B4:25:TYR:N	50:B4:25:TYR:CD1	2.78	0.51
1:AA:1055:A:C6	1:AA:1206:G:C5	2.98	0.51
1:AA:1293:G:O2'	1:AA:1294:G:H8	1.93	0.51
25:DA:271(L):U:H4'	25:DA:271(M):G:H5'	1.92	0.51
25:DA:1694:C:H4'	25:DA:1695:G:O5'	2.11	0.51
1:CA:678:U:H2'	1:CA:679:C:C6	2.46	0.51
1:CA:191:G:N3	20:CT:103:GLY:HA2	2.26	0.51
6:AF:3:ARG:HA	6:AF:65:VAL:O	2.11	0.51
6:AF:22:GLU:O	6:AF:26:ILE:HG13	2.11	0.51
25:BA:1948:G:N7	58:BA:4912:HOH:O	2.33	0.51
1:CA:475:G:H2'	1:CA:476:G:H8	1.75	0.51
25:BA:530:G:O4'	25:BA:530:G:N3	2.37	0.51
36:DQ:10:ARG:HG3	36:DQ:10:ARG:HH11	1.75	0.51
25:BA:1026:U:H2'	25:BA:1026:U:O2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:662:G:H5''	35:DP:16:ARG:HG2	1.93	0.51
14:AN:21:TYR:OH	14:AN:23:ARG:NH2	2.39	0.50
25:DA:2432:A:N1	47:D1:35:THR:HG22	2.25	0.50
1:CA:130:A:O2'	1:CA:131:C:O5'	2.26	0.50
6:AF:35:ALA:HA	6:AF:67:MET:HB3	1.93	0.50
25:BA:1945:G:H2'	25:BA:1946:U:H6	1.76	0.50
14:CN:23:ARG:HD3	14:CN:29:ARG:O	2.11	0.50
9:AI:43:ALA:HA	9:AI:45:ALA:HA	1.92	0.50
25:DA:2357:U:OP1	46:D0:20:ARG:NH1	2.43	0.50
35:DP:48:PRO:O	54:D8:57:ARG:NH2	2.45	0.50
1:CA:811:C:H4'	1:CA:900:A:N6	2.25	0.50
1:AA:180:U:C2'	1:AA:181:G:H5'	2.41	0.50
1:AA:195:A:H1'	1:AA:222:U:O2'	2.12	0.50
1:AA:183:G:N2	1:AA:223:U:O2'	2.36	0.50
13:CM:68:GLY:H	13:CM:71:ARG:NH2	2.09	0.50
1:AA:232:G:H2'	1:AA:233:C:O4'	2.11	0.50
26:DB:64:C:H2'	26:DB:65:C:C6	2.46	0.50
45:DZ:29:TYR:HA	45:DZ:33:LEU:O	2.12	0.50
3:AC:134:ILE:HG22	3:AC:168:ALA:HB3	1.93	0.50
25:DA:1257:C:H4'	29:DF:83:PHE:CD2	2.45	0.50
2:CB:236:TYR:HA	2:CB:239:VAL:CG2	2.42	0.50
25:BA:458:G:O2'	53:B7:39:ARG:HD3	2.11	0.50
35:BP:101:VAL:HA	35:BP:106:LEU:O	2.10	0.50
1:CA:991:U:O4	1:CA:1212:U:O2'	2.29	0.50
25:DA:2821:A:OP2	25:DA:2822:G:OP2	2.29	0.50
55:B9:9:ARG:HB3	55:B9:14:CYS:HB2	1.91	0.50
1:CA:382:A:H2'	1:CA:383:A:C8	2.46	0.50
25:BA:374:A:C2	25:BA:401:A:C4	2.99	0.50
12:AL:92:ASP:O	12:AL:94:PRO:HD3	2.11	0.50
26:DB:32:C:O2	26:DB:50:G:N2	2.33	0.50
1:CA:1321:C:C5'	1:CA:1322:C:H5''	2.38	0.50
5:AE:92:LYS:O	5:AE:118:ILE:HG13	2.11	0.50
22:AY:34:SER:HB3	25:BA:2602:A:H61	1.75	0.50
34:BO:17:ARG:HD3	34:BO:47:ILE:HG23	1.94	0.50
25:DA:2692:C:O2'	25:DA:2847:U:O2'	2.19	0.50
25:DA:2562:U:H1'	34:DO:23:ARG:HH11	1.76	0.50
48:B2:51:ARG:O	48:B2:53:LEU:N	2.44	0.50
25:BA:61:G:H1	25:BA:94:C:H42	1.59	0.50
1:CA:1513:A:H2'	1:CA:1514:C:H6	1.74	0.50
1:CA:1375:A:H4'	7:CG:29:LYS:NZ	2.26	0.50
23:CV:55:U:N3	23:CV:58:A:OP2	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1496:C:H2'	1:CA:1497:G:O4'	2.10	0.50
18:AR:32:ARG:HA	18:AR:69:THR:HG21	1.93	0.50
1:AA:501:C:H2'	1:AA:502:G:C8	2.46	0.50
25:DA:1514:U:H2'	25:DA:1515:G:H8	1.76	0.50
25:BA:531:C:H5'	58:BA:4026:HOH:O	2.11	0.50
45:DZ:124:ILE:HD11	45:DZ:165:VAL:HG21	1.93	0.50
30:DG:15:VAL:HG12	30:DG:19:LEU:HG	1.92	0.50
1:CA:1256:A:H4'	1:CA:1257:U:OP1	2.10	0.50
1:AA:834:C:H2'	1:AA:835:U:C6	2.45	0.50
25:BA:734:A:C4	25:BA:735:A:C8	2.99	0.50
2:CB:24:TRP:CZ3	2:CB:29:ALA:HB2	2.46	0.50
25:DA:718:A:H3'	25:DA:719:C:H6	1.76	0.50
25:BA:7:G:H2'	25:BA:8:A:C8	2.45	0.50
25:DA:1446:C:H2'	25:DA:1447:G:H8	1.76	0.50
1:AA:1401:G:C2	1:AA:1402:C:H1'	2.46	0.50
15:AO:32:LEU:O	15:AO:35:ARG:N	2.44	0.50
32:BI:88:ILE:HG22	32:BI:90:GLY:N	2.25	0.50
1:CA:767:A:H2'	1:CA:768:A:O4'	2.11	0.50
1:AA:1084:G:C5	1:AA:1085:U:C4	3.00	0.50
29:DF:8:GLN:OE1	29:DF:21:ALA:N	2.44	0.50
2:CB:166:ASP:O	2:CB:170:GLU:N	2.44	0.50
25:DA:575:A:OP2	25:DA:2055:C:N4	2.31	0.50
25:DA:2789:C:H4'	25:DA:2790:A:OP1	2.12	0.50
25:DA:2302:G:N1	25:DA:2315:G:C6	2.80	0.50
25:BA:1188:U:H2'	25:BA:1189:A:H5'	1.93	0.50
30:DG:33:ARG:H	30:DG:162:THR:HG23	1.74	0.50
1:CA:437:U:H5''	4:CD:155:LEU:HD21	1.93	0.50
1:CA:1061:G:O2'	1:CA:1062:U:OP1	2.25	0.50
25:BA:1889:A:N1	25:BA:2234:G:H1'	2.25	0.50
33:DN:38:HIS:CE1	33:DN:39:ARG:HG3	2.46	0.50
27:BD:139:GLY:H	27:BD:165:ILE:HB	1.74	0.50
45:DZ:153:SER:HB3	45:DZ:167:PRO:O	2.11	0.50
9:CI:21:PRO:HA	9:CI:59:PHE:HA	1.93	0.50
9:CI:45:ALA:HB3	9:CI:48:GLU:HB2	1.93	0.50
25:DA:27:G:N2	25:DA:512:G:H1'	2.26	0.50
25:DA:189:G:OP2	47:D1:39:LYS:NZ	2.45	0.50
18:CR:61:LYS:O	18:CR:65:ILE:HG12	2.12	0.50
32:BI:93:THR:O	32:BI:97:ILE:HG13	2.12	0.50
6:AF:74:ASP:OD2	6:AF:74:ASP:N	2.43	0.50
25:DA:2399:G:H2'	25:DA:2400:G:O4'	2.11	0.50
29:DF:13:SER:HB2	29:DF:18:ARG:HE	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:804:U:H5''	1:AA:805:C:OP2	2.12	0.50
25:DA:197:A:N6	25:DA:2430:A:H2'	2.25	0.50
37:BR:2:ARG:HA	37:BR:5:LYS:HD2	1.94	0.50
26:DB:89:G:H2'	26:DB:90:A:C8	2.46	0.50
1:AA:666:G:C2	1:AA:741:G:C4	2.99	0.50
36:BQ:14:ARG:HG2	36:BQ:41:TRP:HH2	1.77	0.50
27:DD:177:LEU:HD11	27:DD:183:ARG:HB2	1.93	0.50
28:DE:135:HIS:N	28:DE:135:HIS:CD2	2.79	0.50
25:DA:2285:C:OP2	52:D6:6:ARG:NH1	2.42	0.50
25:BA:819:A:C4	25:BA:1189:A:C2	2.98	0.50
16:AP:21:VAL:O	16:AP:33:ILE:HG12	2.11	0.50
25:BA:1156:A:N7	40:BU:51:LYS:HG2	2.26	0.50
41:DV:5:VAL:HG11	41:DV:57:VAL:CG2	2.41	0.50
42:BW:41:LYS:HD2	51:B5:25:LEU:HD21	1.94	0.50
1:CA:622:A:C8	1:CA:623:C:C6	2.99	0.50
25:DA:1025:G:C5	25:DA:1135:C:H1'	2.47	0.50
2:AB:178:ARG:NH1	2:AB:196:LEU:O	2.45	0.50
23:CV:75:C:H5''	23:CV:76:A:OP2	2.10	0.50
25:BA:2420:C:H5'	52:B6:54:ILE:HD11	1.93	0.50
54:B8:33:ASN:HA	54:B8:36:LYS:HD2	1.92	0.50
36:DQ:32:TYR:HE2	36:DQ:133:ARG:HG3	1.76	0.50
3:CC:11:ARG:HB3	3:CC:15:THR:H	1.76	0.50
15:CO:29:VAL:HG12	15:CO:85:LEU:HD13	1.94	0.50
45:DZ:43:GLU:O	45:DZ:47:VAL:HG23	2.11	0.50
28:BE:10:GLY:C	39:BT:7:ILE:HD11	2.32	0.50
25:DA:2673:G:O3'	34:DO:26:LYS:NZ	2.44	0.50
23:CV:23:C:H2'	23:CV:24:U:C6	2.46	0.50
25:DA:1747:G:H2'	25:DA:1747(A):G:H8	1.76	0.50
3:AC:141:VAL:HG11	3:AC:149:ALA:HB2	1.93	0.50
16:AP:60:LEU:HD11	16:AP:66:PRO:HD3	1.93	0.50
25:DA:1803:A:H4'	27:DD:259:THR:CG2	2.41	0.50
5:CE:12:LEU:HB3	5:CE:31:LEU:HB2	1.92	0.50
38:BS:96:GLY:N	38:BS:99:LYS:H	2.05	0.50
8:AH:51:VAL:HG11	8:AH:60:ARG:HD2	1.94	0.50
25:DA:1406:U:H2'	25:DA:1407:C:C6	2.46	0.50
25:DA:1003:G:N2	25:DA:1153:C:C2	2.80	0.50
32:BI:106:GLY:HA3	32:BI:107:VAL:HG23	1.92	0.50
3:AC:23:TYR:CD1	10:AJ:10:GLY:HA2	2.47	0.50
1:AA:1090:U:H2'	1:AA:1091:U:C6	2.45	0.50
13:AM:69:GLU:C	13:AM:71:ARG:H	2.15	0.50
42:DW:40:ASN:C	42:DW:41:LYS:HG2	2.31	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2700:C:C2'	25:BA:2701:C:H5'	2.41	0.50
1:AA:895:G:H2'	1:AA:896:C:C6	2.47	0.50
18:CR:31:LEU:HD11	18:CR:62:GLU:HB3	1.93	0.50
5:AE:12:LEU:HD11	5:AE:14:ARG:HB3	1.93	0.50
28:DE:115:GLY:O	28:DE:119:ARG:HB2	2.12	0.50
1:CA:49:U:O2	1:CA:362:G:H1'	2.11	0.50
1:CA:308:C:OP1	58:CA:2117:HOH:O	2.20	0.50
12:AL:82:VAL:HG23	12:AL:106:ASP:OD2	2.11	0.50
42:DW:14:PRO:HG2	42:DW:78:GLU:HG2	1.93	0.50
7:CG:10:ARG:HG2	7:CG:10:ARG:HH11	1.76	0.50
22:AY:9:ALA:CB	22:AY:10:ILE:HA	2.41	0.50
25:BA:13:A:N1	25:BA:525:U:H2'	2.26	0.50
5:AE:137:GLU:O	5:AE:141:GLN:HG3	2.12	0.50
25:DA:271(I):G:N2	25:DA:271(O):C:N3	2.46	0.50
1:CA:1279:A:H4'	1:CA:1280:A:OP1	2.12	0.50
38:DS:105:ALA:O	38:DS:110:LEU:HB2	2.12	0.50
2:AB:219:VAL:HA	2:AB:222:ILE:HD12	1.92	0.50
1:AA:97:G:O2'	1:AA:98:G:H5''	2.11	0.50
25:BA:1042:G:H5''	25:BA:1043:C:OP2	2.12	0.50
29:DF:184:TYR:HE1	35:DP:3:LEU:HD21	1.77	0.50
31:BH:3:ARG:HE	31:BH:3:ARG:HA	1.77	0.50
1:CA:176:C:H2'	1:CA:177:C:H6	1.77	0.50
1:AA:130:A:C8	17:AQ:63:ARG:HG3	2.46	0.50
1:CA:186:C:H2'	1:CA:187:C:C6	2.47	0.50
25:DA:271(M):G:H4'	25:DA:271(N):U:OP1	2.10	0.50
25:DA:718:A:O5'	25:DA:718:A:H8	1.94	0.50
25:BA:1635:G:H5''	58:BA:5161:HOH:O	2.11	0.50
47:D1:86:SER:HB3	47:D1:89:GLU:HG2	1.94	0.50
16:CP:49:LEU:HD12	16:CP:50:LYS:H	1.75	0.50
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.93	0.50
1:AA:110:C:H2'	1:AA:111:G:O4'	2.12	0.50
1:CA:1286:A:H2'	1:CA:1287:A:H4'	1.94	0.50
46:B0:49:LYS:O	46:B0:50:ASN:HB2	2.11	0.50
1:CA:57:G:C6	1:CA:58:C:C4	3.00	0.50
1:AA:1216:G:H5''	14:AN:5:ALA:CB	2.41	0.50
33:BN:96:GLU:H	33:BN:96:GLU:CD	2.15	0.50
13:AM:82:MET:HA	13:AM:89:GLY:HA3	1.93	0.50
1:CA:690:G:H2'	1:CA:691:G:O4'	2.10	0.50
25:BA:895:U:H5'	25:BA:896:A:OP2	2.12	0.50
1:CA:1244:C:N4	1:CA:1293:G:H1	2.07	0.50
25:DA:2262:U:H4'	25:DA:2328:A:H2	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:3:LYS:O	16:AP:21:VAL:HA	2.12	0.50
25:DA:1313:U:H2'	25:DA:1610:A:N1	2.27	0.50
27:BD:132:PRO:HA	27:BD:190:TYR:HA	1.94	0.50
2:AB:111:ARG:HG2	2:AB:111:ARG:NH1	2.27	0.50
37:DR:84:ALA:N	37:DR:85:PRO:HD2	2.27	0.50
25:DA:973:A:H5'	25:DA:1188:U:H1'	1.93	0.50
25:DA:2879:C:OP2	58:DA:4348:HOH:O	2.18	0.50
35:BP:75:ILE:CD1	35:BP:75:ILE:H	2.24	0.50
38:DS:41:ASP:OD1	38:DS:43:GLU:HB2	2.11	0.50
25:DA:1878:G:C6	25:DA:1879:C:C4	3.00	0.50
7:AG:85:TYR:HD1	7:AG:154:TYR:CE1	2.30	0.50
45:DZ:21:ALA:O	45:DZ:23:LYS:N	2.45	0.50
36:BQ:116:GLU:O	36:BQ:119:ARG:N	2.45	0.50
1:CA:1184:G:H2'	1:CA:1185:G:H5'	1.93	0.50
28:DE:75:VAL:HG13	28:DE:77:ILE:H	1.76	0.50
27:DD:147:LEU:HD12	27:DD:155:LEU:HD21	1.93	0.50
1:CA:685:G:C2	1:CA:686:U:C4	3.00	0.50
29:BF:25:PRO:HG2	29:BF:111:ALA:HB1	1.93	0.50
6:AF:44:GLY:HA2	6:AF:59:TYR:CZ	2.47	0.50
7:CG:12:LEU:H	7:CG:12:LEU:HD12	1.76	0.50
28:BE:5:LEU:N	28:BE:5:LEU:HD23	2.26	0.50
1:AA:1184:G:OP1	1:AA:1184:G:H8	1.94	0.50
23:AV:45:G:H8	23:AV:45:G:O5'	1.95	0.50
28:BE:50:GLY:CA	28:BE:75:VAL:HG11	2.41	0.50
29:DF:6:VAL:O	29:DF:22:ALA:HB3	2.12	0.50
25:DA:571:A:OP2	25:DA:2030:A:N6	2.44	0.50
25:DA:910:A:N7	36:DQ:12:GLN:HB2	2.27	0.50
25:BA:1045:A:N3	25:BA:1045:A:H3'	2.27	0.50
52:D6:6:ARG:O	52:D6:6:ARG:HG3	2.12	0.50
3:CC:43:LEU:O	3:CC:47:LEU:HB2	2.12	0.50
1:AA:474:G:H2'	1:AA:475:G:H8	1.77	0.50
49:B3:6:VAL:CG1	49:B3:54:VAL:HG11	2.42	0.50
1:CA:757:U:H2'	1:CA:758:G:O4'	2.12	0.50
1:CA:900:A:H2'	1:CA:901:A:O4'	2.12	0.50
1:CA:411:A:O2'	1:CA:413:G:H5'	2.10	0.50
1:AA:1307:U:H2'	1:AA:1308:U:O4'	2.12	0.50
49:D3:12:PRO:O	49:D3:15:TYR:HB2	2.11	0.50
1:CA:1452:C:O2'	1:CA:1456:G:P	2.70	0.50
1:AA:119:A:H4'	1:AA:120:A:O5'	2.11	0.50
1:AA:1124:G:N7	1:AA:1145:C:O2'	2.39	0.50
1:CA:840:C:H4'	1:CA:841:U:OP1	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DD:148:GLU:HB2	27:DD:151:LYS:HD3	1.93	0.50
25:BA:858:U:O2	25:BA:2268:A:H2'	2.12	0.50
14:AN:43:CYS:O	14:AN:46:GLU:HB2	2.12	0.50
25:BA:311:A:OP2	58:BA:4641:HOH:O	2.20	0.50
1:AA:353:A:H8	1:AA:353:A:H5'	1.77	0.50
4:AD:146:ILE:HD12	4:AD:146:ILE:H	1.76	0.50
1:CA:790:A:H61	1:CA:1498:U:P	2.35	0.50
12:CL:40:VAL:HG21	12:CL:78:GLN:HA	1.93	0.50
40:BU:28:ARG:HH11	40:BU:38:THR:HG1	1.59	0.50
1:CA:1279:A:O2'	1:CA:1280:A:O5'	2.30	0.50
50:B4:16:CYS:SG	50:B4:17:GLY:N	2.85	0.50
1:AA:452:A:H4'	16:AP:72:ARG:NH1	2.27	0.50
25:BA:848:G:H2'	25:BA:849:A:C8	2.47	0.50
26:DB:49:C:OP1	38:DS:97:ARG:N	2.45	0.50
1:AA:1483:A:HO2'	25:BA:1947:C:HO2'	1.58	0.50
25:DA:2103:C:O2	25:DA:2187:G:N1	2.45	0.50
2:AB:36:ARG:O	2:AB:39:ILE:N	2.33	0.50
11:CK:33:THR:OG1	11:CK:34:ASP:O	2.30	0.50
30:BG:47:LYS:O	30:BG:82:LEU:HD22	2.12	0.50
2:AB:167:PRO:HG3	2:AB:188:ALA:CB	2.42	0.50
44:DY:98:VAL:HG23	44:DY:99:CYS:O	2.12	0.50
25:BA:2189:U:H2'	25:BA:2190:G:H8	1.77	0.50
1:AA:818:G:O2'	1:AA:819:A:H5'	2.12	0.50
1:CA:187:C:H2'	1:CA:188:C:H6	1.76	0.50
11:AK:29:ILE:HG23	11:AK:44:SER:HB3	1.94	0.50
1:CA:1137:C:H4'	1:CA:1138:G:C2	2.47	0.50
1:AA:1233:G:H2'	1:AA:1234:C:C6	2.46	0.50
25:BA:631:A:H5''	25:BA:632:A:OP2	2.11	0.50
41:DV:74:LYS:HB2	41:DV:83:ARG:HB2	1.94	0.50
25:BA:466:A:N3	25:BA:683:C:H1'	2.27	0.50
3:CC:150:LYS:HG3	3:CC:169:ALA:HB2	1.94	0.50
1:CA:903:G:OP1	58:CA:2057:HOH:O	2.20	0.50
26:DB:9:G:OP1	38:DS:15:ARG:NH1	2.42	0.50
25:BA:1662:C:O2'	25:BA:1663:C:H5'	2.12	0.50
12:CL:32:PHE:HE1	12:CL:86:ARG:HG3	1.76	0.50
25:DA:1006:C:C2	25:DA:1138:G:N2	2.80	0.50
25:DA:2473:U:O2	25:DA:2473:U:H2'	2.11	0.50
1:AA:1071:C:H5''	5:AE:49:PRO:HG2	1.94	0.50
25:BA:1243:G:O3'	35:BP:7:ARG:NH2	2.44	0.50
25:BA:330:A:O2'	25:BA:331:A:H8	1.95	0.49
25:BA:2787:C:H1'	28:BE:62:PRO:HG3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DS:96:GLY:H	38:DS:99:LYS:H	1.60	0.49
19:AS:31:ILE:HG23	19:AS:48:THR:O	2.12	0.49
25:DA:2712:U:H1'	25:DA:2712(A):A:C8	2.47	0.49
1:CA:944:G:C2	1:CA:1340:A:C6	2.99	0.49
1:CA:1308:U:OP2	13:CM:99:ARG:HG3	2.12	0.49
2:CB:97:TRP:CZ2	2:CB:102:LEU:HD13	2.45	0.49
1:AA:186:C:H2'	1:AA:187:C:H6	1.73	0.49
25:DA:848:G:C4	25:DA:933:A:H8	2.30	0.49
7:AG:26:PHE:CD1	7:AG:62:PHE:HE1	2.30	0.49
25:DA:173:G:H2'	25:DA:174:C:C6	2.48	0.49
37:DR:21:TYR:OH	37:DR:43:GLU:HG2	2.11	0.49
1:AA:504:C:OP1	58:AA:2048:HOH:O	2.19	0.49
7:AG:28:ASN:OD1	7:AG:36:LYS:NZ	2.45	0.49
25:BA:2336:A:H61	46:B0:43:THR:CG2	2.22	0.49
28:DE:35:GLN:HB3	28:DE:48:GLN:HB3	1.93	0.49
1:CA:437:U:C5'	4:CD:155:LEU:HD21	2.42	0.49
1:AA:765:G:H5''	1:AA:766:A:OP1	2.11	0.49
1:AA:518:C:C5	1:AA:530:G:C8	3.00	0.49
31:BH:7:LEU:HG	31:BH:69:ARG:NH1	2.26	0.49
25:BA:2186:G:C3'	25:BA:2187:G:H5''	2.42	0.49
40:DU:72:HIS:ND1	40:DU:72:HIS:N	2.60	0.49
25:DA:1006:C:H1'	33:DN:106:MET:HB3	1.93	0.49
12:AL:78:GLN:O	12:AL:81:SER:HB2	2.12	0.49
27:DD:145:VAL:HG11	27:DD:175:LEU:HD11	1.94	0.49
1:CA:21:G:H2'	1:CA:22:G:C8	2.46	0.49
25:DA:1341:U:H1'	43:DX:55:ASN:HD22	1.76	0.49
32:BI:104:GLN:HG2	32:BI:105:HIS:HD2	1.76	0.49
25:DA:1709:U:H2'	25:DA:1710:C:C6	2.46	0.49
25:BA:1485:G:H1	25:BA:1504:C:H42	1.60	0.49
10:CJ:45:ARG:HD3	10:CJ:65:LEU:HD23	1.94	0.49
1:CA:52:G:O2'	1:CA:53:A:H5'	2.12	0.49
33:DN:26:LEU:HD23	33:DN:60:ILE:HD11	1.92	0.49
45:BZ:140:ASP:OD2	45:BZ:142:SER:HB2	2.11	0.49
32:DI:58:LEU:HD13	32:DI:59:ALA:HB2	1.94	0.49
25:BA:866:A:O2'	25:BA:867:C:H5'	2.12	0.49
7:CG:140:ASP:O	7:CG:144:MET:N	2.45	0.49
1:AA:142:G:C2	1:AA:143:A:C8	2.99	0.49
1:AA:994:A:N3	1:AA:994:A:H2'	2.26	0.49
2:CB:198:ASP:OD2	2:CB:198:ASP:N	2.45	0.49
6:AF:36:ARG:CG	6:AF:36:ARG:HH11	2.25	0.49
25:DA:631:A:OP2	54:D8:47:LYS:NZ	2.34	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:27:ILE:HD11	7:CG:43:PHE:HD2	1.77	0.49
25:DA:1540:U:H2'	25:DA:1541:G:O4'	2.12	0.49
2:CB:69:LEU:HD13	2:CB:91:PRO:HB2	1.94	0.49
1:CA:872:A:O2'	1:CA:873:A:H5''	2.11	0.49
10:AJ:9:ARG:HB2	10:AJ:95:GLU:CB	2.37	0.49
25:DA:579:G:H2'	25:DA:580:C:H6	1.77	0.49
40:DU:76:TYR:O	40:DU:80:ILE:HG12	2.12	0.49
49:B3:6:VAL:HG12	49:B3:54:VAL:CG1	2.42	0.49
1:AA:129(A):G:N2	1:AA:189(H):G:C5	2.80	0.49
13:CM:69:GLU:C	13:CM:71:ARG:H	2.16	0.49
1:CA:1095:U:H2'	1:CA:1096:C:O4'	2.11	0.49
25:BA:795:C:H2'	25:BA:796:C:H6	1.76	0.49
1:AA:444:C:H2'	1:AA:445:G:C8	2.47	0.49
25:DA:2331:G:N3	25:DA:2336:A:H2	2.10	0.49
25:BA:2203:U:O4'	27:BD:151:LYS:HE2	2.12	0.49
29:DF:158:THR:HG21	29:DF:163:VAL:HG11	1.94	0.49
25:BA:1503:U:H2'	25:BA:1504:C:C6	2.46	0.49
9:CI:26:VAL:O	9:CI:32:ASP:HA	2.12	0.49
28:BE:137:HIS:HD1	28:BE:138:PRO:HD2	1.76	0.49
25:BA:1183:G:H4'	49:B3:29:ARG:HH22	1.77	0.49
55:B9:27:CYS:SG	55:B9:28:GLU:N	2.85	0.49
1:AA:60:A:H4'	1:AA:61:G:O5'	2.12	0.49
1:CA:959:A:O2'	1:CA:984:C:O2'	2.30	0.49
40:BU:108:GLU:O	40:BU:111:GLU:N	2.45	0.49
25:DA:294:A:H2'	25:DA:295:G:O4'	2.12	0.49
25:BA:1488:G:H5''	25:BA:1488:G:C8	2.47	0.49
10:AJ:13:HIS:HB3	10:AJ:68:HIS:NE2	2.27	0.49
4:AD:88:VAL:O	4:AD:92:VAL:HG23	2.12	0.49
25:DA:1300:U:H4'	25:DA:1301:A:H5''	1.94	0.49
40:DU:49:HIS:HA	40:DU:52:ARG:HB3	1.94	0.49
15:AO:74:ASP:CG	15:AO:77:ARG:HD3	2.33	0.49
1:CA:1352:C:H42	1:CA:1370:G:H1	1.61	0.49
25:BA:2507:C:C2	25:BA:2508:G:C8	3.00	0.49
8:CH:12:ARG:HH21	8:CH:26:VAL:HA	1.78	0.49
3:CC:18:TRP:HD1	14:CN:54:PRO:HA	1.74	0.49
3:CC:52:LEU:HD21	3:CC:55:VAL:HG22	1.94	0.49
25:DA:1239:G:H2'	25:DA:1240:U:O4'	2.12	0.49
42:BW:80:PRO:O	42:BW:100:THR:HB	2.13	0.49
33:BN:54:VAL:HG12	33:BN:55:VAL:N	2.27	0.49
1:AA:324:G:N2	1:AA:327:A:C8	2.80	0.49
1:AA:428:G:O4'	1:AA:430:A:C8	2.65	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:54:GLN:HB2	28:DE:76:ARG:HB3	1.94	0.49
1:CA:1268:A:O2'	1:CA:1269:A:O5'	2.30	0.49
1:AA:104:G:O6	20:AT:14:LYS:NZ	2.44	0.49
35:BP:75:ILE:H	35:BP:75:ILE:HD12	1.77	0.49
25:BA:2052:G:O4'	28:BE:142:GLY:HA3	2.12	0.49
1:CA:991:U:H4'	1:CA:992:U:O5'	2.12	0.49
27:DD:52:ARG:HB2	27:DD:53:PHE:CD2	2.47	0.49
41:DV:52:VAL:CG2	41:DV:55:ALA:HB3	2.42	0.49
33:BN:85:ILE:HG22	33:BN:86:PRO:HD2	1.95	0.49
32:DI:4:ILE:HG12	32:DI:18:VAL:HG22	1.95	0.49
25:DA:539:G:H2'	25:DA:540:C:C6	2.47	0.49
1:CA:1190:G:OP1	3:CC:5:ILE:N	2.30	0.49
41:DV:20:LEU:O	41:DV:93:GLU:HG2	2.12	0.49
36:DQ:55:VAL:HG12	36:DQ:64:ILE:HD12	1.95	0.49
25:BA:1322:A:H2'	25:BA:1323:U:H6	1.77	0.49
4:AD:65:ARG:HG2	4:AD:75:PHE:CD1	2.47	0.49
33:BN:104:LYS:HB2	33:BN:117:PHE:CE1	2.47	0.49
1:CA:376:G:O3'	16:CP:5:ARG:HD2	2.13	0.49
52:D6:16:CYS:HB2	52:D6:18:ARG:HH11	1.78	0.49
1:AA:1282:C:OP2	1:AA:1282:C:H6	1.96	0.49
25:BA:652(P):G:H1'	25:BA:652(Q):G:C8	2.47	0.49
31:DH:9:ILE:HD12	31:DH:72:ILE:HG22	1.94	0.49
1:CA:920:U:H2'	1:CA:921:U:H6	1.72	0.49
25:DA:900:A:H2'	25:DA:901:A:O4'	2.13	0.49
2:AB:21:ARG:H	2:AB:21:ARG:HH11	1.60	0.49
41:DV:5:VAL:HG12	41:DV:37:VAL:HG22	1.94	0.49
25:DA:2439:A:H1'	25:DA:2587:A:OP1	2.13	0.49
26:DB:20:C:H2'	26:DB:21:G:H5'	1.94	0.49
28:DE:47:VAL:HG12	28:DE:49:LEU:HD13	1.94	0.49
1:AA:731:G:OP1	1:AA:766:A:H1'	2.13	0.49
11:CK:105:VAL:HG23	11:CK:105:VAL:O	2.13	0.49
17:CQ:66:SER:OG	17:CQ:67:LYS:O	2.28	0.49
36:BQ:116:GLU:OE1	36:BQ:116:GLU:HA	2.12	0.49
34:BO:64:ARG:HG2	34:BO:79:PHE:CD2	2.48	0.49
51:B5:8:LYS:O	51:B5:9:LYS:HG2	2.13	0.49
25:BA:2485:G:OP1	36:BQ:46:GLN:NE2	2.45	0.49
49:D3:5:LYS:HE2	49:D3:57:GLU:HG3	1.95	0.49
19:AS:33:THR:OG1	19:AS:34:TRP:N	2.45	0.49
20:CT:10:LEU:HG	20:CT:12:ALA:H	1.76	0.49
1:CA:180:U:H2'	1:CA:181:G:H5'	1.94	0.49
25:DA:667:U:H2'	25:DA:668:G:O4'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DO:115:VAL:HG12	34:DO:121:VAL:HG21	1.94	0.49
1:AA:1218:C:OP2	14:AN:9:LYS:NZ	2.32	0.49
4:AD:127:THR:OG1	4:AD:128:VAL:N	2.44	0.49
23:AV:3:C:H5'	25:BA:2255:G:O2'	2.13	0.49
1:AA:407:G:O2'	4:AD:116:GLN:HG3	2.11	0.49
46:D0:52:GLY:O	46:D0:59:LEU:HA	2.11	0.49
25:DA:588:U:H2'	25:DA:589:C:C6	2.48	0.49
48:D2:44:LEU:HD23	48:D2:45:SER:O	2.13	0.49
1:AA:812:C:OP1	1:AA:903:G:H1'	2.12	0.49
25:DA:2307:G:H4'	25:DA:2308:G:C5'	2.40	0.49
8:CH:12:ARG:HH21	8:CH:27:PRO:HD3	1.73	0.49
1:AA:453:A:C6	1:AA:454:C:N4	2.80	0.49
29:DF:188:ARG:HA	35:DP:3:LEU:HD11	1.95	0.49
31:DH:7:LEU:HB3	31:DH:69:ARG:NH1	2.26	0.49
27:BD:136:ILE:O	27:BD:168:ARG:NH2	2.46	0.49
3:CC:30:ARG:HH21	14:CN:38:GLY:HA2	1.76	0.49
25:DA:1252:G:O4'	40:DU:33:ARG:HD3	2.12	0.49
1:CA:1423:G:H2'	1:CA:1424:C:H6	1.76	0.49
1:AA:1531:A:H2'	1:AA:1532:U:O4'	2.13	0.49
9:CI:83:ARG:O	9:CI:86:VAL:HG22	2.12	0.49
28:DE:4:ILE:HG12	28:DE:5:LEU:N	2.27	0.49
25:BA:2220:G:N7	58:BA:4113:HOH:O	2.35	0.49
10:CJ:55:LYS:H	10:CJ:56:HIS:CD2	2.30	0.49
2:CB:82:ARG:HG3	2:CB:92:TYR:CZ	2.48	0.49
4:AD:152:SER:O	4:AD:154:ASN:N	2.46	0.49
25:BA:1503:U:H2'	25:BA:1504:C:H6	1.77	0.49
1:AA:60:A:H8	1:AA:60:A:P	2.36	0.49
36:DQ:55:VAL:HG12	36:DQ:64:ILE:CD1	2.42	0.49
25:DA:2716:U:O2'	25:DA:2717:G:H5'	2.13	0.49
38:DS:7:TYR:HA	38:DS:10:ARG:HH12	1.76	0.49
25:BA:376:C:H2'	25:BA:377:C:C6	2.47	0.49
25:BA:1472:A:H2'	25:BA:1473:G:H8	1.77	0.49
1:AA:946:A:H2'	1:AA:947:G:C8	2.47	0.49
1:CA:551:U:H5'	12:CL:119:LYS:HE2	1.95	0.49
29:BF:150:GLY:HA2	29:BF:172:TRP:CE3	2.47	0.49
55:D9:30:PRO:O	55:D9:33:LYS:HB2	2.13	0.49
27:DD:239:ARG:O	27:DD:239:ARG:HG3	2.11	0.49
1:AA:1495:U:O2'	25:BA:1919:A:N1	2.43	0.49
33:BN:56:ASN:N	33:BN:125:GLY:HA3	2.13	0.49
25:BA:1049:C:O2	25:BA:1050:A:N7	2.46	0.49
1:AA:1179:A:H2'	1:AA:1180:A:O4'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CP:28:ARG:NH1	16:CP:28:ARG:HG2	2.25	0.49
25:DA:1319:G:H5''	25:DA:1319:G:H8	1.78	0.49
25:BA:729:G:C5	27:BD:208:LYS:HB2	2.47	0.49
25:DA:19:C:H2'	25:DA:20:C:C6	2.43	0.49
25:DA:1019:U:O2'	25:DA:1021:A:H2	1.94	0.49
25:DA:1022:G:C6	25:DA:1140:C:C4	3.00	0.49
1:AA:115:G:H1	1:AA:312:C:H42	1.59	0.49
34:BO:35:VAL:HG11	34:BO:103:ALA:CB	2.42	0.49
25:BA:1289:C:H2'	25:BA:1290:C:C6	2.47	0.49
25:BA:1429:G:H2'	25:BA:1430:C:C6	2.47	0.49
14:CN:27:CYS:HG	14:CN:43:CYS:HG	1.55	0.49
19:CS:62:ILE:HG23	19:CS:66:MET:HG3	1.94	0.49
25:BA:1587:A:H2'	25:BA:1588:C:C6	2.47	0.49
1:AA:618:C:N3	1:AA:622:A:N6	2.60	0.49
25:DA:2465:C:O2	25:DA:2486:G:C2	2.65	0.49
43:DX:5:TYR:CE2	48:D2:30:ARG:HB2	2.48	0.49
48:D2:46:GLN:O	48:D2:49:LYS:HG3	2.13	0.49
29:DF:39:TRP:CH2	29:DF:106:ARG:HD3	2.47	0.49
4:AD:158:ILE:O	4:AD:162:LEU:HB2	2.13	0.49
45:BZ:104:PHE:HB3	45:BZ:141:VAL:HG21	1.95	0.49
25:BA:1641:A:H2'	25:BA:1642:G:O4'	2.13	0.49
44:DY:43:ASN:OD1	44:DY:65:ALA:HB3	2.12	0.49
7:AG:145:ALA:O	7:AG:147:ALA:N	2.46	0.49
27:DD:120:GLY:O	27:DD:131:LEU:HG	2.13	0.49
11:AK:73:MET:HG3	11:AK:103:LEU:HD21	1.95	0.49
25:BA:861:A:H2'	25:BA:862:G:O4'	2.12	0.49
33:BN:58:ASP:OD1	33:BN:58:ASP:N	2.44	0.49
19:AS:70:LYS:HD2	19:AS:70:LYS:N	2.27	0.49
27:BD:112:GLN:O	27:BD:115:GLN:HG2	2.12	0.49
26:DB:105:A:OP1	45:DZ:72:ARG:NH1	2.46	0.49
23:CV:53:G:H2'	23:CV:54:U:C6	2.47	0.49
8:CH:13:ILE:O	8:CH:17:THR:HG23	2.12	0.49
1:CA:1157:A:H62	1:CA:1177:G:N2	2.10	0.49
38:DS:35:ILE:HD11	38:DS:101:LEU:HD12	1.93	0.49
25:BA:2319:G:H22	38:BS:3:ARG:HA	1.76	0.49
17:AQ:18:THR:HG23	17:AQ:69:LYS:NZ	2.27	0.49
31:DH:69:ARG:HG3	31:DH:70:THR:N	2.27	0.49
2:CB:80:ILE:HG12	2:CB:211:ILE:HG22	1.93	0.49
2:CB:20:GLU:O	2:CB:40:HIS:HB2	2.11	0.49
2:CB:189:ASP:OD1	2:CB:189:ASP:N	2.45	0.49
48:B2:50:ILE:O	48:B2:51:ARG:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:977:A:O2'	1:CA:981:U:N3	2.45	0.49
2:CB:174:VAL:O	2:CB:178:ARG:HG3	2.13	0.49
25:BA:1188:U:O2'	25:BA:1189:A:H5'	2.12	0.49
50:B4:42:PHE:CA	50:B4:43:TYR:HB2	2.43	0.49
1:CA:722:A:H5'	1:CA:723:U:OP2	2.13	0.49
25:DA:2550:G:C5	25:DA:2551:C:C5	3.01	0.49
48:D2:45:SER:O	48:D2:46:GLN:HB2	2.13	0.49
2:CB:83:MET:SD	2:CB:234:PRO:HB2	2.52	0.49
20:AT:38:LYS:HA	20:AT:41:ILE:HG13	1.94	0.49
8:AH:4:ASP:OD1	8:AH:85:ARG:NH1	2.46	0.49
25:BA:1839:G:N7	25:BA:1927:A:H1'	2.27	0.49
34:DO:114:ILE:O	34:DO:117:LEU:N	2.45	0.49
1:AA:880:C:OP1	12:AL:8:ASN:ND2	2.45	0.49
29:DF:178:PRO:HB2	29:DF:201:VAL:HG22	1.94	0.49
25:BA:1994:C:O2'	25:BA:1995:U:H5'	2.13	0.49
30:DG:28:VAL:O	30:DG:31:VAL:HG13	2.11	0.49
25:DA:1357:U:H2'	25:DA:1358:G:C8	2.48	0.49
1:AA:1127:G:C2'	1:AA:1128:C:H5'	2.43	0.49
27:DD:218:ARG:HB3	27:DD:219:PRO:HD2	1.95	0.49
5:CE:100:VAL:O	5:CE:107:ARG:NH2	2.45	0.49
1:CA:1245:A:H61	1:CA:1292:U:H3	1.61	0.49
25:DA:637:A:C8	35:DP:117:GLU:HG3	2.45	0.49
48:B2:29:LYS:HD3	48:B2:57:ILE:HG21	1.95	0.49
25:DA:998:C:P	40:DU:92:ARG:HH22	2.36	0.49
25:DA:1789:A:H5"	27:DD:220:HIS:O	2.13	0.49
3:AC:121:ALA:O	3:AC:125:GLU:HG3	2.11	0.49
1:AA:445:G:C2	1:AA:446:G:C4	3.00	0.49
12:CL:33:ARG:HG2	12:CL:60:LEU:HG	1.93	0.49
25:BA:1163:G:C2	25:BA:1164:G:C8	3.01	0.49
19:AS:36:ARG:HB3	19:AS:72:GLY:HA3	1.94	0.49
16:AP:61:SER:OG	16:AP:62:VAL:N	2.45	0.49
43:BX:63:LYS:O	43:BX:64:LYS:HG2	2.13	0.49
2:CB:153:ARG:HG3	2:CB:154:LEU:N	2.28	0.49
27:DD:78:LYS:HE2	27:DD:114:GLY:HA2	1.93	0.49
1:CA:1378:C:H5	1:CA:1379:G:N9	2.10	0.49
28:DE:132:HIS:CD2	58:DE:410:HOH:O	2.65	0.49
36:DQ:108:GLY:HA3	45:DZ:116:VAL:HG11	1.95	0.49
1:CA:1112:C:H2'	1:CA:1113:C:H5'	1.94	0.49
3:CC:78:GLY:HA3	3:CC:83:ARG:H	1.76	0.49
29:DF:167:ALA:HB1	29:DF:173:VAL:HG11	1.95	0.49
1:CA:1281:U:H5"	1:CA:1282:C:OP2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1182:G:H4'	1:CA:1183:A:H3'	1.95	0.49
25:BA:2286:A:H4'	25:BA:2287:A:O5'	2.12	0.49
1:AA:1048:G:OP1	14:AN:3:ARG:HB3	2.13	0.49
1:AA:254:G:OP1	17:AQ:67:LYS:O	2.31	0.49
25:DA:12:U:O2	25:DA:12:U:H2'	2.12	0.49
25:DA:321:G:C5	25:DA:341:G:H4'	2.47	0.49
1:AA:347:G:C6	1:AA:348:G:C8	3.00	0.49
25:DA:2801(A):A:H5''	25:DA:2802:G:H5'	1.93	0.49
51:D5:29:THR:O	51:D5:30:LEU:HD23	2.13	0.49
1:CA:1360:A:H2'	1:CA:1361:G:O4'	2.13	0.49
14:CN:23:ARG:HG3	14:CN:24:CYS:N	2.26	0.49
1:AA:539:A:H2'	1:AA:540:G:H8	1.76	0.49
1:CA:434:U:H2'	1:CA:435:C:H6	1.77	0.49
32:BI:27:ARG:HD3	47:B1:71:TYR:CE1	2.48	0.49
1:AA:939:G:H5''	7:AG:102:ARG:NH1	2.28	0.49
25:BA:2100:G:C6	25:BA:2190:G:C6	3.00	0.49
1:AA:237:C:H5''	17:AQ:25:ARG:NE	2.28	0.49
25:BA:700:G:OP2	58:BA:5149:HOH:O	2.20	0.49
8:CH:51:VAL:HG11	8:CH:60:ARG:NH1	2.28	0.49
25:BA:1168:G:H2'	25:BA:1169:G:O4'	2.13	0.49
29:BF:123:LEU:HD21	29:BF:199:TRP:HZ3	1.78	0.49
1:AA:1233:G:H2'	1:AA:1234:C:H6	1.78	0.49
18:CR:65:ILE:O	18:CR:69:THR:HG23	2.13	0.49
29:DF:17:ARG:HG3	29:DF:18:ARG:H	1.78	0.49
54:B8:29:LYS:NZ	54:B8:45:GLY:HA2	2.27	0.49
1:AA:124:G:H4'	1:AA:291:C:O2'	2.13	0.49
32:DI:14:ASP:N	32:DI:17:GLN:OE1	2.44	0.49
28:DE:200:GLU:HG3	28:DE:201:THR:H	1.78	0.49
25:DA:38:A:H2'	25:DA:39:C:C6	2.48	0.49
8:AH:34:GLU:OE1	8:AH:37:ARG:NH1	2.45	0.49
26:DB:2:C:O2'	26:DB:3:C:H5'	2.12	0.49
11:CK:23:ALA:O	11:CK:86:GLY:HA3	2.12	0.49
8:AH:53:VAL:HG12	8:AH:54:ASP:OD2	2.13	0.49
1:CA:376:G:H5''	16:CP:5:ARG:HB2	1.94	0.49
25:BA:2287:A:C4	25:BA:2289:G:C8	3.00	0.49
32:DI:38:LEU:O	32:DI:43:ASN:ND2	2.46	0.49
14:AN:27:CYS:O	14:AN:29:ARG:N	2.46	0.49
1:AA:373:A:C2	1:AA:374:A:C8	3.00	0.49
1:AA:391:G:O3'	16:AP:8:ARG:NH2	2.44	0.49
25:BA:330:A:O2'	25:BA:331:A:C8	2.66	0.49
2:CB:84:GLU:OE1	2:CB:87:ARG:NH1	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2463:C:C2'	25:BA:2464:C:H5'	2.43	0.49
3:CC:70:VAL:O	3:CC:106:VAL:N	2.40	0.49
31:BH:94:TYR:CE1	31:BH:108:GLY:N	2.80	0.49
37:DR:94:TYR:CD2	37:DR:94:TYR:N	2.79	0.49
1:CA:1169:A:H2'	1:CA:1170:A:C8	2.48	0.49
25:BA:580:C:H2'	25:BA:581:C:H6	1.77	0.49
23:CV:9:G:O2'	23:CV:10:G:N7	2.35	0.49
5:AE:77:PRO:HD2	5:AE:142:LEU:HD22	1.93	0.49
25:BA:468:G:N7	53:B7:39:ARG:NH2	2.57	0.49
25:DA:1339:G:N2	25:DA:1603:A:H1'	2.27	0.49
41:BV:98:GLU:OE1	41:BV:100:ARG:HD3	2.13	0.49
25:BA:384:U:H2'	25:BA:385:C:H6	1.77	0.49
25:DA:1450(A):C:N4	25:DA:1451:C:H41	2.11	0.49
1:CA:588:G:H2'	1:CA:588:G:N3	2.27	0.49
25:DA:1154:G:H8	25:DA:1154:G:O5'	1.95	0.49
25:BA:787:U:H5''	25:BA:788:A:H5'	1.95	0.49
25:DA:2319:G:O4'	25:DA:2319:G:N3	2.45	0.49
1:CA:1161:C:H2'	1:CA:1162:C:C6	2.48	0.48
1:CA:377:G:H1	1:CA:386:C:N4	1.96	0.48
1:AA:254:G:H1'	17:AQ:15:MET:HB3	1.95	0.48
35:DP:143:GLY:O	35:DP:145:PRO:HD3	2.13	0.48
1:AA:952:U:O2'	1:AA:953:G:H5'	2.13	0.48
39:DT:53:ARG:HH11	39:DT:60:THR:HG23	1.77	0.48
4:CD:38:TYR:CE1	4:CD:45:GLN:HG3	2.48	0.48
25:BA:1021:A:H8	25:BA:1021:A:H3'	1.75	0.48
25:DA:1019:U:H2'	25:DA:1020:A:H8	1.78	0.48
25:BA:1815:A:C5	25:BA:1817:G:C6	3.01	0.48
43:BX:60:ARG:HH21	53:B7:47:ARG:NH2	2.11	0.48
27:DD:68:LYS:C	27:DD:70:TRP:H	2.15	0.48
1:AA:473:G:H2'	1:AA:474:G:C8	2.44	0.48
25:DA:1001:A:H2'	25:DA:1002:G:O4'	2.13	0.48
40:DU:76:TYR:OH	40:DU:92:ARG:NH1	2.40	0.48
25:DA:2261:C:C5	46:D0:16:SER:HB3	2.48	0.48
1:AA:447:G:O6	1:AA:485:G:O2'	2.27	0.48
27:BD:108:PRO:HB3	27:BD:143:HIS:HE1	1.76	0.48
37:BR:103:ARG:HG2	37:BR:103:ARG:NH1	2.28	0.48
16:AP:20:VAL:HG23	16:AP:35:LYS:HA	1.94	0.48
12:CL:6:THR:O	12:CL:9:GLN:HB2	2.13	0.48
1:AA:943:U:C2'	1:AA:944:G:H5'	2.43	0.48
1:AA:616:G:C2	1:AA:617:G:N7	2.81	0.48
28:DE:67:PHE:HB3	28:DE:72:VAL:O	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1168:G:H1	25:BA:1181:C:N4	2.11	0.48
13:AM:50:GLU:HA	13:AM:53:VAL:CG2	2.43	0.48
25:BA:2729:G:O2'	28:BE:170:LEU:HD11	2.13	0.48
25:BA:2741:A:OP1	55:B9:22:ARG:NH2	2.31	0.48
25:DA:1005:C:C2	25:DA:1143:A:C5	3.01	0.48
25:BA:911:A:H2'	36:BQ:9:TYR:OH	2.13	0.48
36:BQ:67:ARG:HD2	36:BQ:105:GLU:OE1	2.13	0.48
1:CA:927:G:N2	1:CA:1391:U:H1'	2.27	0.48
32:DI:123:LEU:HA	32:DI:144:VAL:HG13	1.95	0.48
25:DA:776:G:H4'	25:DA:777:A:O5'	2.12	0.48
31:DH:153:LYS:HG3	31:DH:154:PRO:HD2	1.94	0.48
1:CA:1362:C:H2'	1:CA:1363:C:H5''	1.95	0.48
1:CA:1227:A:C3'	1:CA:1227:A:C8	2.95	0.48
10:AJ:39:PRO:HA	10:AJ:70:ARG:HD3	1.95	0.48
25:BA:764:A:OP1	27:BD:208:LYS:HE2	2.13	0.48
25:DA:1141:U:P	33:DN:25:ARG:HH11	2.36	0.48
28:BE:82:ARG:HG2	28:BE:83:ASP:H	1.77	0.48
1:AA:1138:G:C5	1:AA:1140:C:H1'	2.48	0.48
22:AY:103:LYS:HB3	25:BA:1915:U:H4'	1.95	0.48
1:AA:1531:A:H2'	1:AA:1532:U:C1'	2.43	0.48
30:DG:33:ARG:HE	30:DG:33:ARG:HB2	1.46	0.48
25:DA:1494:A:H2'	25:DA:1495:A:C8	2.48	0.48
45:DZ:30:ASN:N	45:DZ:33:LEU:O	2.38	0.48
17:CQ:7:THR:HG23	17:CQ:58:GLU:HG3	1.96	0.48
1:AA:40:C:H2'	1:AA:41:G:H8	1.78	0.48
39:BT:15:VAL:HG12	39:BT:16:ARG:N	2.28	0.48
50:B4:42:PHE:N	50:B4:43:TYR:HB2	2.28	0.48
25:DA:1859:A:C2	25:DA:1884:A:H1'	2.48	0.48
11:AK:99:GLN:HG3	11:AK:105:VAL:HG11	1.95	0.48
2:AB:97:TRP:CH2	2:AB:173:ALA:HA	2.49	0.48
25:DA:1936:A:H2'	25:DA:1945:G:O6	2.14	0.48
34:BO:64:ARG:HG2	34:BO:79:PHE:CG	2.48	0.48
1:CA:1378:C:C5	1:CA:1379:G:C8	3.01	0.48
25:DA:1963:U:H4'	25:DA:1964:G:OP1	2.13	0.48
31:DH:26:VAL:HG12	31:DH:79:VAL:HG21	1.95	0.48
17:CQ:6:LEU:HB3	17:CQ:23:VAL:HG11	1.95	0.48
7:CG:109:ASN:O	7:CG:110:GLN:NE2	2.46	0.48
4:AD:142:PRO:HG3	4:AD:185:PHE:CE2	2.48	0.48
25:BA:588:U:H2'	25:BA:589:C:C6	2.47	0.48
27:BD:274:ARG:CB	27:BD:275:LYS:HB2	2.43	0.48
44:DY:79:CYS:HB2	44:DY:81:LYS:H	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2609:U:OP1	25:BA:2609:U:H4'	2.11	0.48
17:AQ:21:VAL:HG21	17:AQ:59:ILE:HG21	1.95	0.48
6:AF:70:ASP:OD2	6:AF:71:ARG:HG3	2.13	0.48
5:CE:50:GLU:HB2	5:CE:53:LEU:HD13	1.95	0.48
1:CA:978:A:H5''	1:CA:979:C:OP2	2.12	0.48
5:CE:36:ASP:O	5:CE:37:ARG:HB2	2.12	0.48
13:AM:22:ILE:HG23	13:AM:67:GLU:HG3	1.95	0.48
25:BA:1045:A:H1'	25:BA:1047:G:N3	2.28	0.48
25:BA:1048:A:H1'	25:BA:1049:C:H2'	1.95	0.48
25:BA:1049:C:O2'	25:BA:1050:A:C8	2.67	0.48
1:AA:1148:U:H2'	1:AA:1149:C:O4'	2.13	0.48
52:B6:47:THR:HG22	52:B6:48:VAL:N	2.28	0.48
1:CA:1142:G:H3'	1:CA:1143:G:H8	1.77	0.48
4:CD:117:ALA:O	4:CD:121:VAL:HG23	2.12	0.48
1:CA:1343:G:H2'	1:CA:1344:C:C6	2.48	0.48
26:DB:66:A:H61	26:DB:109:C:H5''	1.77	0.48
23:CV:49:G:C2'	23:CV:50:U:H5'	2.44	0.48
25:BA:30:G:O2'	25:BA:1214:A:N3	2.41	0.48
17:CQ:68:ARG:H	17:CQ:70:ARG:NH1	2.11	0.48
48:D2:9:GLN:HE22	48:D2:56:GLN:HB3	1.78	0.48
2:AB:74:LYS:C	2:AB:76:GLN:H	2.16	0.48
25:DA:673:C:H5''	29:DF:81:PRO:HD2	1.94	0.48
4:CD:107:ARG:HB3	4:CD:174:LEU:HD11	1.95	0.48
22:AY:69:VAL:HG12	22:AY:71:VAL:HG22	1.94	0.48
38:DS:101:LEU:HD22	38:DS:102:ALA:HB2	1.94	0.48
25:DA:2575:C:H2'	25:DA:2578:G:O6	2.12	0.48
25:DA:2884:U:O2	51:D5:53:ALA:HB2	2.13	0.48
2:CB:212:GLN:O	2:CB:216:SER:OG	2.26	0.48
25:BA:1031:G:H21	55:B9:36:GLN:HE22	1.61	0.48
5:CE:80:ILE:CD1	5:CE:91:LEU:HB2	2.43	0.48
25:DA:660:G:H5'	29:DF:99:TYR:CE2	2.48	0.48
45:BZ:61:LEU:HD23	45:BZ:67:LEU:HD23	1.95	0.48
25:BA:831:G:O2'	35:BP:38:GLN:HG2	2.13	0.48
25:DA:2102:U:O2	25:DA:2187:G:O6	2.31	0.48
39:DT:91:ARG:HD2	39:DT:120:ARG:NH1	2.29	0.48
45:DZ:34:ASN:O	45:DZ:35:ARG:HD2	2.13	0.48
2:AB:118:LEU:HD11	2:AB:141:GLU:HB3	1.94	0.48
1:CA:1226:C:OP2	13:CM:103:THR:OG1	2.21	0.48
22:AY:113:ALA:O	22:AY:117:ARG:HG3	2.13	0.48
13:CM:65:LYS:HA	13:CM:66:LEU:CG	2.44	0.48
13:CM:65:LYS:HA	13:CM:66:LEU:CB	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1164:G:O2'	1:AA:1165:C:H5'	2.13	0.48
5:AE:126:ARG:CG	5:AE:126:ARG:HH11	2.26	0.48
38:DS:26:LEU:HA	38:DS:39:ILE:HD13	1.95	0.48
45:DZ:151:HIS:C	45:DZ:153:SER:H	2.17	0.48
33:DN:18:ALA:HB1	33:DN:60:ILE:HD13	1.94	0.48
8:AH:7:ALA:HB2	8:AH:85:ARG:HD2	1.95	0.48
25:DA:2805:G:H2'	25:DA:2807:G:O4'	2.13	0.48
1:AA:837:G:N7	58:AA:2311:HOH:O	2.35	0.48
17:AQ:62:SER:HB3	17:AQ:72:ARG:HE	1.79	0.48
25:DA:898:C:H2'	25:DA:899:A:O4'	2.13	0.48
25:BA:1651:G:OP1	37:BR:40:LYS:HE3	2.13	0.48
25:BA:2784:C:H1'	28:BE:37:ARG:HH12	1.78	0.48
1:AA:321:A:N7	1:AA:328:C:O2'	2.41	0.48
25:DA:659:C:H4'	29:DF:100:THR:O	2.12	0.48
25:DA:2887:U:H2'	25:DA:2888:C:H6	1.79	0.48
28:DE:24:THR:HG22	28:DE:186:GLY:O	2.13	0.48
40:DU:104:GLN:OE1	40:DU:105:VAL:HG23	2.13	0.48
25:DA:1689:A:N6	25:DA:1698:A:H2	1.97	0.48
1:AA:1368:G:H5''	9:AI:112:LYS:HB3	1.94	0.48
25:DA:1448:G:O2'	25:DA:1528:A:N6	2.38	0.48
1:AA:953:G:C2	1:AA:954:G:H1'	2.48	0.48
25:BA:833:U:O2	35:BP:55:ARG:NH2	2.45	0.48
25:DA:2295:C:C2	25:DA:2296:U:H5	2.31	0.48
1:AA:159:G:H2'	1:AA:161:A:OP2	2.13	0.48
31:DH:30:LYS:HG3	31:DH:80:SER:O	2.13	0.48
25:BA:2845:G:O2'	25:BA:2846:G:H5'	2.13	0.48
1:AA:751:U:H5''	1:AA:752:G:OP2	2.14	0.48
25:DA:287:C:N4	25:DA:354:G:H1	2.10	0.48
25:DA:988:A:P	49:D3:11:SER:HB2	2.54	0.48
25:DA:533:G:H21	40:DU:45:TYR:HE2	1.61	0.48
25:BA:1784:A:OP2	58:BA:5166:HOH:O	2.20	0.48
25:DA:770:G:N3	25:DA:1354:A:H2	2.12	0.48
36:DQ:97:VAL:HG13	36:DQ:101:ARG:HB3	1.95	0.48
1:AA:939:G:OP1	7:AG:102:ARG:NH1	2.36	0.48
17:AQ:40:LYS:HE2	17:AQ:42:TYR:CZ	2.49	0.48
8:CH:51:VAL:HG11	8:CH:60:ARG:HH11	1.77	0.48
23:CV:21:A:H2'	23:CV:46:G:O6	2.14	0.48
20:AT:38:LYS:HA	20:AT:41:ILE:CG1	2.43	0.48
49:D3:43:ILE:O	49:D3:47:VAL:HG23	2.13	0.48
25:DA:537:C:O2'	33:DN:5:VAL:HG21	2.13	0.48
52:D6:9:LEU:CD2	52:D6:25:LYS:HB3	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:176:LEU:HG	4:AD:178:VAL:HG22	1.95	0.48
1:CA:271:C:H2'	1:CA:272:C:H6	1.78	0.48
31:BH:154:PRO:HB3	31:BH:163:TYR:CZ	2.47	0.48
1:CA:1192:C:OP2	3:CC:4:LYS:NZ	2.38	0.48
5:AE:30:ALA:O	5:AE:45:PHE:HA	2.13	0.48
1:CA:363:A:C2	12:CL:31:PRO:HG2	2.48	0.48
50:B4:15:ILE:HG13	50:B4:21:VAL:HG13	1.95	0.48
25:BA:975:C:OP2	25:BA:975:C:H4'	2.13	0.48
33:BN:102:ALA:O	33:BN:106:MET:HG3	2.14	0.48
39:DT:109:GLU:O	39:DT:113:LYS:N	2.45	0.48
25:BA:154:G:H5''	25:BA:154:G:H8	1.77	0.48
27:DD:273:ARG:HG2	27:DD:274:ARG:N	2.28	0.48
25:BA:2573:C:H5''	25:BA:2574:G:C5'	2.44	0.48
25:DA:102:G:O2'	25:DA:103:A:P	2.71	0.48
25:DA:1008:C:N4	25:DA:1136:G:C6	2.82	0.48
33:DN:42:TRP:HA	33:DN:48:MET:SD	2.53	0.48
1:CA:502:G:C2	1:CA:503:C:C2	3.01	0.48
1:AA:865:A:H2	1:AA:918:A:H4'	1.78	0.48
25:DA:2054:A:H5''	25:DA:2055:C:O5'	2.12	0.48
25:BA:832:G:N2	35:BP:53:GLY:HA3	2.27	0.48
1:AA:113:G:H2'	1:AA:114:U:C6	2.48	0.48
1:CA:539:A:H2'	1:CA:540:G:C8	2.49	0.48
9:AI:45:ALA:HB3	9:AI:47:LEU:H	1.78	0.48
1:AA:1223:C:OP2	19:AS:78:ARG:NH2	2.43	0.48
1:CA:411:A:OP2	4:CD:25:ARG:NH2	2.46	0.48
1:CA:946:A:O2'	1:CA:1333:A:N3	2.41	0.48
25:DA:520:G:H2'	25:DA:521:G:H8	1.76	0.48
30:BG:5:VAL:HG23	30:BG:104:GLU:OE2	2.13	0.48
26:BB:31:C:H4'	30:BG:29:TRP:CH2	2.49	0.48
1:CA:1065:U:H1'	1:CA:1066:C:OP2	2.14	0.48
1:CA:1135:U:H2'	1:CA:1137:C:C2	2.48	0.48
25:BA:89:G:H3'	25:BA:90:U:C5'	2.44	0.48
3:AC:153:VAL:HG22	3:AC:198:VAL:HG22	1.95	0.48
6:AF:89:MET:HE2	6:AF:91:VAL:HG23	1.96	0.48
36:DQ:32:TYR:HB2	36:DQ:106:VAL:HG23	1.95	0.48
36:BQ:43:THR:O	36:BQ:46:GLN:HB2	2.14	0.48
9:AI:46:ALA:HB1	9:AI:77:ILE:HB	1.95	0.48
29:BF:64:ILE:HG12	29:BF:65:TRP:N	2.29	0.48
35:BP:63:PRO:HG2	54:B8:25:MET:HB2	1.95	0.48
25:BA:1186:G:OP1	58:BA:5190:HOH:O	2.20	0.48
1:CA:266:G:H5''	1:CA:267:C:C5	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:33:LEU:HD22	14:AN:53:LEU:HD21	1.95	0.48
1:AA:66:G:O4'	1:AA:173:U:C4	2.66	0.48
35:BP:138:LEU:HD23	35:BP:145:PRO:HG3	1.95	0.48
25:DA:2751:G:C8	31:DH:2:SER:N	2.81	0.48
43:DX:84:ALA:O	43:DX:87:GLN:HG3	2.13	0.48
40:DU:17:ILE:HA	40:DU:20:LEU:HD12	1.95	0.48
25:DA:2376:A:OP1	25:DA:2376:A:H8	1.97	0.48
23:AV:46:G:H8	23:AV:46:G:H3'	1.79	0.48
25:DA:2326:C:H5''	25:DA:2327:A:OP2	2.13	0.48
45:DZ:108:PRO:HA	45:DZ:142:SER:HA	1.96	0.48
25:BA:996:A:C2	25:BA:997:G:C8	3.01	0.48
22:AY:39:LEU:HD22	22:AY:71:VAL:HG12	1.95	0.48
25:BA:848:G:C4	25:BA:933:A:C8	3.01	0.48
13:AM:23:TYR:CB	13:AM:67:GLU:HG2	2.38	0.48
20:CT:92:LEU:O	20:CT:96:GLY:HA2	2.12	0.48
26:DB:37:C:C5	26:DB:38:C:C5	3.02	0.48
1:CA:677:U:H3	1:CA:713:G:N2	2.08	0.48
9:CI:11:LYS:H	9:CI:104:ARG:NH1	2.11	0.48
1:CA:73:G:C6	1:CA:97:G:C6	3.01	0.48
25:DA:2529:G:H5''	25:DA:2530:A:H5''	1.95	0.48
25:DA:531:C:H4'	25:DA:532:A:H5''	1.94	0.48
22:AY:62:HIS:CD2	22:AY:63:LEU:HG	2.48	0.48
14:CN:29:ARG:HH21	14:CN:42:ILE:HD11	1.78	0.48
37:BR:33:ARG:CB	37:BR:115:GLU:HB3	2.44	0.48
25:DA:1292:U:H2'	25:DA:1293:C:H6	1.79	0.48
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.94	0.48
13:AM:74:VAL:O	13:AM:77:ASN:HB2	2.14	0.48
2:CB:58:ILE:HG13	2:CB:58:ILE:H	1.42	0.48
33:BN:33:LEU:HD12	33:BN:38:HIS:ND1	2.29	0.48
1:AA:189:G:C6	1:AA:189(L):G:N1	2.81	0.48
43:DX:36:LYS:HE3	43:DX:56:THR:OG1	2.14	0.48
25:DA:2469:A:H5''	25:DA:2470:G:OP2	2.14	0.48
23:CV:12:G:H4'	25:DA:1908:C:O2	2.14	0.48
20:AT:78:ALA:O	20:AT:82:SER:OG	2.31	0.48
20:CT:54:LYS:HA	20:CT:57:ARG:NH2	2.29	0.48
39:DT:6:LEU:HA	39:DT:6:LEU:HD13	1.47	0.48
25:BA:2575:C:H6	25:BA:2575:C:O5'	1.96	0.48
4:AD:138:TYR:HD2	4:AD:139:ARG:N	2.11	0.48
25:BA:2093:G:OP1	32:BI:23:PRO:HD2	2.13	0.48
36:BQ:26:TYR:CE1	36:BQ:28:ALA:HB2	2.49	0.48
1:AA:923:A:OP1	5:AE:21:ALA:HB2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1123:A:H4'	10:CJ:37:PRO:HD2	1.96	0.48
25:BA:271(K):U:H1'	25:BA:271(L):U:OP1	2.14	0.48
25:DA:2780:G:H4'	25:DA:2781:A:OP2	2.14	0.48
33:DN:62:VAL:CG1	33:DN:66:LYS:HB2	2.44	0.48
1:AA:115:G:H8	1:AA:115:G:O5'	1.95	0.48
1:CA:541:G:C6	1:CA:542:G:C5	3.02	0.48
1:CA:509:A:C3'	1:CA:509:A:C8	2.96	0.48
5:CE:80:ILE:HD12	5:CE:91:LEU:HB2	1.94	0.48
3:AC:181:ASN:ND2	3:AC:204:LEU:HD12	2.28	0.48
28:BE:82:ARG:HG2	28:BE:83:ASP:N	2.29	0.48
1:CA:764:C:C2	1:CA:765:G:C8	3.02	0.48
9:AI:127:LYS:HD2	58:AI:301:HOH:O	2.14	0.48
37:DR:25:ALA:O	37:DR:29:LEU:HB2	2.14	0.48
25:DA:1638:C:H4'	25:DA:2710:C:O2	2.14	0.48
1:CA:406:G:H21	4:CD:119:GLN:HE22	1.59	0.48
48:D2:32:LEU:HD12	48:D2:53:LEU:HB3	1.96	0.48
10:CJ:8:LEU:HB2	10:CJ:16:LEU:HD21	1.94	0.48
1:AA:949:A:H1'	1:AA:1364:U:H3	1.78	0.48
25:BA:886:C:O2'	25:BA:889:C:N4	2.46	0.48
25:BA:154:G:H5'	25:BA:154(A):C:OP2	2.13	0.48
25:DA:2228:G:OP1	27:DD:261:LYS:HE2	2.14	0.48
25:DA:2534:A:C2	25:DA:2535:G:H1'	2.49	0.48
25:DA:2783:G:H2'	25:DA:2784:C:C6	2.49	0.48
25:DA:109:G:H2'	25:DA:110:G:O4'	2.13	0.48
44:BY:13:VAL:HB	44:BY:72:VAL:HG22	1.96	0.48
1:CA:1056:U:O3'	3:CC:155:GLY:HA2	2.14	0.48
25:DA:614(C):A:N3	25:DA:615:G:H1'	2.29	0.48
1:AA:941:G:C2	1:AA:942:G:H1'	2.48	0.48
25:BA:1568:G:O5'	27:BD:61:LEU:HD22	2.14	0.48
25:DA:1802:A:N1	25:DA:1822:G:H1'	2.29	0.48
2:CB:30:ARG:HG3	2:CB:31:TYR:N	2.29	0.48
23:AV:59:A:H2'	23:AV:60:U:H5'	1.96	0.48
25:DA:1839:G:C8	25:DA:1927:A:H1'	2.49	0.48
25:BA:132:G:H1	25:BA:147:U:H3	1.60	0.48
25:DA:1200:C:H1'	40:DU:2:PRO:HG3	1.95	0.48
25:DA:854:G:H2'	25:DA:855:G:H8	1.79	0.48
25:BA:442:G:H4'	29:BF:46:ARG:HG3	1.95	0.48
1:AA:28:G:H5"	1:AA:29:G:OP2	2.14	0.48
58:BA:3942:HOH:O	46:B0:23:VAL:HG23	2.13	0.48
45:BZ:128:VAL:HG22	45:BZ:132:ASN:HB2	1.96	0.48
25:DA:1356:G:C6	25:DA:1357:U:N3	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:B6:47:THR:HG22	52:B6:48:VAL:O	2.14	0.48
1:AA:626:U:C2	1:AA:627:G:C8	3.02	0.48
26:BB:77:U:P	45:BZ:19:ARG:HH22	2.37	0.48
1:CA:537:G:H5''	12:CL:113:ARG:NH1	2.29	0.48
25:DA:875:G:N2	25:DA:903:C:C2	2.81	0.48
33:DN:53:VAL:HG11	33:DN:128:HIS:HB2	1.96	0.48
25:DA:2009:G:OP1	42:DW:41:LYS:HE3	2.14	0.48
1:CA:1253:G:H2'	1:CA:1254:C:C6	2.49	0.48
25:DA:2833:G:O2'	25:DA:2834:G:P	2.71	0.48
25:BA:2273:A:H2'	25:BA:2274:A:C8	2.49	0.48
36:DQ:63:LYS:HE3	36:DQ:65:PHE:CZ	2.49	0.48
28:BE:50:GLY:HA3	28:BE:75:VAL:HG11	1.96	0.48
1:AA:189(A):C:H2'	1:AA:189(B):C:C6	2.49	0.48
30:DG:32:PRO:HB2	30:DG:172:LEU:HD22	1.96	0.48
25:DA:754:C:H2'	25:DA:755:C:C6	2.49	0.48
25:DA:705:A:H1'	27:DD:9:TYR:CE1	2.49	0.48
47:D1:76:ARG:HE	47:D1:97:LEU:HD22	1.79	0.48
53:D7:24:THR:O	53:D7:28:ARG:HG3	2.13	0.48
25:DA:2361:A:OP1	54:D8:27:THR:HG23	2.13	0.48
25:DA:1810:A:H2'	25:DA:1811:G:O4'	2.13	0.48
25:DA:2052:G:O4'	28:DE:142:GLY:HA3	2.14	0.48
1:CA:848:C:H2'	1:CA:849:C:O4'	2.14	0.48
30:BG:34:LEU:HA	30:BG:34:LEU:HD23	1.78	0.48
1:AA:800:G:HO2'	1:AA:801:U:H6	1.60	0.48
1:AA:976:G:C8	1:AA:1362:C:N4	2.82	0.48
25:BA:570:G:H2'	25:BA:2030:A:C5	2.48	0.48
1:AA:167:G:H2'	1:AA:168:G:C8	2.49	0.48
22:AY:34:SER:HB2	25:BA:2602:A:H61	1.77	0.48
1:CA:560:U:H5'	1:CA:566:G:N2	2.29	0.48
3:AC:19:GLU:HB2	3:AC:55:VAL:O	2.13	0.48
1:AA:343:U:H3'	1:AA:343:U:P	2.53	0.48
25:DA:483:A:O2'	44:DY:49:VAL:O	2.21	0.48
1:CA:189(H):G:C6	1:CA:189(I):G:C5	3.01	0.48
36:BQ:110:THR:HG23	36:BQ:113:GLN:CG	2.42	0.48
1:CA:1273:G:H5'	1:CA:1274:G:OP2	2.14	0.48
25:BA:2637:U:H5''	28:BE:82:ARG:NH2	2.27	0.48
1:CA:1493:A:C8	1:CA:1493:A:OP2	2.67	0.48
25:DA:2657:A:C2	25:DA:2665:A:C4	3.02	0.48
45:DZ:128:VAL:HG23	45:DZ:161:VAL:N	2.29	0.48
2:CB:187:LEU:HD23	2:CB:201:ILE:HG22	1.95	0.48
1:CA:433:C:H2'	1:CA:434:U:C6	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:324:G:N1	1:AA:327:A:OP2	2.47	0.48
29:DF:53:THR:O	29:DF:55:GLY:N	2.47	0.48
18:CR:70:ILE:O	18:CR:74:ARG:HG3	2.13	0.48
33:DN:128:HIS:O	33:DN:130:HIS:N	2.47	0.48
50:B4:42:PHE:HB3	50:B4:43:TYR:HB2	1.95	0.48
13:CM:65:LYS:HA	13:CM:66:LEU:HG	1.95	0.48
1:CA:1203:C:OP1	14:CN:3:ARG:HD3	2.14	0.48
28:BE:77:ILE:HG21	28:BE:195:LEU:HD11	1.96	0.48
29:DF:89:VAL:HG12	29:DF:90:PHE:N	2.28	0.48
25:DA:1339:G:H21	25:DA:1603:A:H1'	1.79	0.48
6:AF:86:ARG:O	6:AF:87:ARG:HG2	2.13	0.48
42:DW:59:VAL:HG12	42:DW:60:ASN:OD1	2.13	0.48
25:DA:2461:C:H2'	25:DA:2462:U:C6	2.49	0.48
25:BA:2032:G:O2'	28:BE:145:LYS:NZ	2.46	0.48
25:DA:296:C:O3'	44:DY:95:LYS:NZ	2.47	0.48
38:BS:65:VAL:O	38:BS:69:VAL:HG12	2.14	0.48
31:BH:143:GLN:O	31:BH:146:ALA:HB3	2.14	0.48
31:BH:62:LYS:HB2	31:BH:62:LYS:HE2	1.64	0.48
1:AA:1246:C:H42	1:AA:1291:G:H1	1.62	0.48
25:BA:1364:G:OP2	47:B1:3:LYS:HG3	2.14	0.47
1:AA:1202:G:O4'	14:AN:29:ARG:NH1	2.40	0.47
25:DA:297:C:OP1	44:DY:87:LYS:HD2	2.14	0.47
1:CA:561:U:O2'	1:CA:562:C:OP1	2.27	0.47
1:CA:562:C:H4'	1:CA:563:A:O5'	2.14	0.47
1:AA:1149:C:H2'	1:AA:1150:U:C6	2.47	0.47
29:DF:184:TYR:CE2	29:DF:188:ARG:HD2	2.49	0.47
25:DA:2779:U:H4'	25:DA:2780:G:H5''	1.95	0.47
25:BA:1139:G:O2'	25:BA:1143:A:N1	2.30	0.47
32:BI:132:PRO:HD3	32:BI:138:ILE:CD1	2.44	0.47
25:DA:2528:U:O2'	25:DA:2529:G:H3'	2.13	0.47
47:B1:37:ILE:HG22	47:B1:38:SER:N	2.29	0.47
1:AA:993:G:N3	1:AA:993:G:H2'	2.29	0.47
25:BA:69:C:H2'	25:BA:70:G:H8	1.79	0.47
25:DA:1788:C:C2	25:DA:1789:A:C8	3.01	0.47
25:BA:2469:A:O3'	36:BQ:56:ARG:HD3	2.14	0.47
25:DA:1183:G:O3'	49:D3:29:ARG:NH1	2.47	0.47
1:CA:1268:A:H4'	21:CU:19:GLY:HA2	1.95	0.47
1:AA:1245:A:N6	1:AA:1293:G:O6	2.47	0.47
28:DE:51:PHE:HB3	28:DE:77:ILE:HG22	1.95	0.47
1:AA:1125:U:H5''	1:AA:1126:U:C4	2.49	0.47
1:AA:189:G:C6	1:AA:189(A):C:C4	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:240:C:H2'	1:CA:241:C:C6	2.49	0.47
2:AB:9:GLU:O	2:AB:11:LEU:N	2.39	0.47
34:DO:64:ARG:HB3	34:DO:79:PHE:CG	2.49	0.47
41:DV:64:HIS:ND1	41:DV:92:THR:OG1	2.38	0.47
25:DA:872:A:C6	25:DA:873:G:C6	3.01	0.47
1:CA:477:A:H2'	1:CA:479:C:H6	1.79	0.47
2:CB:109:SER:O	2:CB:112:VAL:N	2.47	0.47
25:DA:2334:G:OP1	25:DA:2334:G:H8	1.96	0.47
47:B1:94:LEU:O	47:B1:97:LEU:HB2	2.14	0.47
26:DB:55:U:HO2'	30:DG:29:TRP:HD1	1.62	0.47
2:AB:185:ILE:CG2	2:AB:199:TYR:HB2	2.34	0.47
25:BA:2562:U:H1'	34:BO:23:ARG:NH1	2.21	0.47
1:AA:1129:C:O5'	1:AA:1130:A:H5'	2.13	0.47
26:DB:45:A:OP1	30:DG:95:ARG:HD2	2.14	0.47
2:CB:69:LEU:HD12	2:CB:70:PHE:N	2.29	0.47
25:BA:528:A:C2	25:BA:2043:C:H4'	2.49	0.47
25:DA:2712:U:OP1	25:DA:2714:G:H4'	2.15	0.47
36:DQ:35:VAL:HG22	36:DQ:36:ALA:N	2.28	0.47
1:AA:1457:G:H2'	1:AA:1458:G:H8	1.77	0.47
1:CA:574:A:H5''	1:CA:575:G:OP2	2.14	0.47
1:CA:881:G:H2'	1:CA:882:C:O4'	2.14	0.47
1:AA:625:G:H4'	16:AP:16:HIS:CD2	2.49	0.47
25:DA:1021:A:C8	25:DA:1021:A:H3'	2.50	0.47
3:CC:39:ILE:O	3:CC:43:LEU:HG	2.14	0.47
25:DA:533:G:H5'	40:DU:24:TYR:CD2	2.49	0.47
1:CA:619:U:C2	4:CD:135:LEU:HD21	2.49	0.47
25:DA:1497:U:H5''	25:DA:1498:C:H5	1.79	0.47
1:AA:263:A:OP2	20:AT:79:ARG:NH1	2.47	0.47
1:AA:153:C:H2'	1:AA:154:C:C6	2.49	0.47
44:DY:92:ASN:N	44:DY:93:GLY:HA2	2.28	0.47
25:DA:886:C:H2'	25:DA:887:A:H5'	1.96	0.47
1:CA:257:G:C4	1:CA:258:G:C8	3.02	0.47
1:CA:1411:C:H2'	1:CA:1412:C:H6	1.80	0.47
5:AE:126:ARG:HH11	5:AE:126:ARG:HG2	1.78	0.47
8:AH:7:ALA:HB2	8:AH:85:ARG:CD	2.45	0.47
23:CV:72:A:H2'	23:CV:73:A:O4'	2.14	0.47
25:BA:183:C:N4	25:BA:213:A:H61	2.11	0.47
25:BA:1916:A:H2'	25:BA:1917:U:O4'	2.14	0.47
51:D5:45:VAL:HG22	51:D5:52:TYR:HB2	1.94	0.47
26:BB:32:C:C2	26:BB:51:G:N2	2.82	0.47
25:DA:2653:U:H3	25:DA:2667:C:H42	1.61	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DU:8:VAL:HG13	40:DU:12:ARG:HE	1.79	0.47
25:DA:646:A:H2'	25:DA:647:G:O4'	2.13	0.47
25:DA:565:C:H2'	25:DA:566:U:O4'	2.14	0.47
38:BS:36:TYR:N	38:BS:36:TYR:CD1	2.81	0.47
18:AR:24:ALA:O	18:AR:26:LEU:N	2.47	0.47
25:BA:771:G:OP1	53:B7:14:LYS:NZ	2.48	0.47
1:AA:21:G:H2'	1:AA:22:G:C8	2.49	0.47
22:AY:40:ARG:NH2	22:AY:88:LEU:HD22	2.30	0.47
1:CA:1353:G:H2'	1:CA:1354:C:H6	1.78	0.47
38:BS:100:ALA:C	38:BS:101:LEU:O	2.48	0.47
25:DA:321:G:OP2	29:DF:136:THR:OG1	2.32	0.47
25:BA:1176:G:H1'	25:BA:1177:A:H5''	1.96	0.47
1:CA:1308:U:H5''	13:CM:98:VAL:CG2	2.42	0.47
6:CF:2:ARG:CZ	6:CF:69:GLU:HG2	2.44	0.47
25:DA:152:G:H2'	25:DA:153:C:O4'	2.14	0.47
1:CA:1512:U:H2'	1:CA:1513:A:H8	1.78	0.47
25:DA:2572:A:N7	28:DE:145:LYS:HB2	2.29	0.47
10:AJ:7:LYS:HA	10:AJ:71:LEU:HA	1.96	0.47
25:DA:1302:A:H5'	25:DA:1608:A:OP1	2.15	0.47
1:CA:544:G:OP1	4:CD:62:GLN:NE2	2.30	0.47
40:BU:79:PHE:CE1	40:BU:83:LEU:HD21	2.50	0.47
1:AA:980:C:H5''	1:AA:981:U:OP2	2.14	0.47
25:DA:1283:G:H2'	25:DA:1285:G:OP2	2.14	0.47
25:DA:1283:G:N2	25:DA:1286:A:H5'	2.29	0.47
1:CA:114:U:H2'	1:CA:115:G:C8	2.48	0.47
1:AA:303:A:H2'	1:AA:304:U:O4'	2.14	0.47
20:AT:14:LYS:O	20:AT:18:GLN:HG3	2.13	0.47
1:CA:1389:C:H5''	1:CA:1390:U:OP2	2.14	0.47
9:CI:24:GLY:HA2	9:CI:59:PHE:O	2.15	0.47
23:AV:46:G:C8	23:AV:46:G:H3'	2.49	0.47
6:CF:50:TYR:HB2	6:CF:51:PRO:HD2	1.96	0.47
1:AA:965:A:C2	1:AA:969:A:C2	3.03	0.47
47:B1:64:ALA:HA	47:B1:67:ILE:HG13	1.96	0.47
47:D1:73:LEU:HD22	47:D1:73:LEU:HA	1.80	0.47
53:D7:8:ASN:C	53:D7:8:ASN:OD1	2.53	0.47
32:DI:88:ILE:HD12	32:DI:121:LYS:C	2.34	0.47
20:CT:26:ASN:OD1	20:CT:71:THR:HG23	2.14	0.47
33:BN:63:THR:O	33:BN:66:LYS:HG3	2.14	0.47
25:DA:960:A:H5''	25:DA:961:C:OP2	2.14	0.47
1:AA:1358:U:H3	1:AA:1363(A):A:H61	0.59	0.47
2:CB:185:ILE:HA	2:CB:199:TYR:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:189(D):C:O2	1:CA:189(H):G:C2	2.67	0.47
47:B1:58:ILE:HD11	47:B1:60:PHE:CE2	2.48	0.47
4:CD:162:LEU:HA	4:CD:162:LEU:HD23	1.65	0.47
25:DA:2262:U:OP1	46:D0:19:LYS:HD3	2.13	0.47
28:DE:18:ASP:HB3	39:DT:82:LEU:HD21	1.95	0.47
25:DA:1686:C:O2'	25:DA:1687:G:H5'	2.14	0.47
25:BA:603:A:C8	25:BA:655:A:C6	3.02	0.47
9:AI:126:SER:HA	9:AI:127:LYS:HD3	1.96	0.47
30:DG:106:LEU:HG	30:DG:111:LEU:HG	1.97	0.47
3:AC:118:GLN:HA	3:AC:121:ALA:HB3	1.95	0.47
27:BD:71:ASP:CB	27:BD:103:ARG:HH22	2.26	0.47
42:DW:71:VAL:HA	42:DW:107:LEU:HD12	1.95	0.47
25:DA:1915:U:H3'	25:DA:1916:A:H8	1.78	0.47
1:CA:832:C:O2'	1:CA:833:U:P	2.73	0.47
25:DA:2050:C:H1'	28:DE:156:MET:CE	2.44	0.47
25:DA:1515:G:H2'	25:DA:1516:C:H6	1.79	0.47
25:DA:2808:U:H5''	25:DA:2891:G:O6	2.14	0.47
1:CA:270:A:C5	1:CA:271:C:C4	3.02	0.47
25:DA:2634:G:O6	25:DA:2784:C:N4	2.34	0.47
25:DA:1796:U:H2'	25:DA:1797:C:C6	2.50	0.47
1:AA:52:G:H2'	1:AA:53:A:H8	1.78	0.47
25:DA:1438:U:O2'	25:DA:1439:A:H5'	2.14	0.47
25:BA:2348:U:H2'	25:BA:2349:G:H5''	1.96	0.47
19:CS:35:SER:HB3	19:CS:37:ARG:HD3	1.96	0.47
2:AB:220:ASP:O	2:AB:224:GLN:N	2.45	0.47
27:DD:16:MET:HB2	27:DD:207:GLY:HA3	1.96	0.47
1:CA:836:G:C6	1:CA:851:G:C6	3.03	0.47
25:BA:2249:U:H4'	25:BA:2250:G:OP2	2.15	0.47
4:CD:110:PHE:N	4:CD:110:PHE:CD1	2.82	0.47
45:DZ:19:ARG:HE	45:DZ:19:ARG:HB2	1.42	0.47
49:B3:56:VAL:HG12	49:B3:57:GLU:N	2.30	0.47
22:AY:44:ARG:CZ	22:AY:57:LEU:HD11	2.44	0.47
4:CD:103:ASN:O	4:CD:106:TYR:N	2.48	0.47
1:CA:234:C:H2'	1:CA:235:C:H6	1.79	0.47
41:DV:42:GLY:O	41:DV:43:GLU:HG2	2.14	0.47
23:CV:61:C:O2'	23:CV:62:C:H5'	2.14	0.47
25:BA:885:C:N3	25:BA:890:A:N1	2.62	0.47
1:CA:1181:G:H2'	1:CA:1182:G:C4	2.50	0.47
22:AY:21:ARG:HA	22:AY:35:THR:HA	1.96	0.47
16:AP:50:LYS:O	16:AP:51:VAL:HG23	2.15	0.47
8:AH:28:ALA:HA	8:AH:32:LYS:HD3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:118:A:C8	25:BA:119:A:C8	3.03	0.47
2:CB:19:HIS:ND1	2:CB:20:GLU:HG2	2.29	0.47
25:DA:480:A:OP2	44:DY:47:LYS:HD3	2.14	0.47
25:BA:1019:U:O2'	25:BA:1021:A:H2	1.96	0.47
8:CH:4:ASP:OD1	8:CH:85:ARG:NH1	2.41	0.47
1:AA:300:A:H1'	1:AA:565:U:O2	2.15	0.47
1:CA:832:C:N4	1:CA:855:G:C6	2.82	0.47
13:CM:9:ILE:HA	13:CM:10:PRO:HD3	1.53	0.47
10:CJ:55:LYS:O	10:CJ:57:LYS:N	2.48	0.47
9:AI:101:PHE:CD1	9:AI:101:PHE:N	2.80	0.47
1:CA:664:G:H22	1:CA:741:G:H1	1.61	0.47
9:CI:44:VAL:HA	9:CI:45:ALA:HA	1.54	0.47
34:BO:79:PHE:HE2	34:BO:101:PRO:HB2	1.79	0.47
25:DA:2256:G:H2'	25:DA:2257:U:H6	1.79	0.47
4:AD:133:VAL:HG11	4:AD:138:TYR:HD1	1.79	0.47
25:DA:1927:A:H2'	25:DA:1928:A:C8	2.50	0.47
25:BA:356:G:H2'	25:BA:357:A:H8	1.79	0.47
13:AM:14:ARG:HG2	13:AM:17:VAL:HG22	1.97	0.47
25:DA:1242:A:N1	35:DP:4:SER:HB2	2.29	0.47
25:DA:2787:C:O2'	28:DE:61:ARG:HD3	2.14	0.47
23:AV:20:U:O2'	23:AV:21:A:H5''	2.14	0.47
25:DA:2467:C:H4'	36:DQ:123:HIS:ND1	2.30	0.47
25:DA:251:A:C5	25:DA:252:G:H1'	2.50	0.47
53:D7:35:ARG:HG3	53:D7:42:LEU:HD11	1.95	0.47
25:DA:29:U:O5'	25:DA:29:U:H6	1.98	0.47
8:CH:73:ASP:OD2	8:CH:75:ARG:HD3	2.15	0.47
25:BA:1579:A:H2'	25:BA:1580:A:O4'	2.14	0.47
25:DA:832:G:H21	35:DP:53:GLY:HA3	1.80	0.47
25:BA:143:G:H1'	43:BX:37:THR:HG21	1.96	0.47
1:CA:1168:A:H8	1:CA:1168:A:OP1	1.97	0.47
3:AC:3:ASN:OD1	3:AC:3:ASN:N	2.47	0.47
2:CB:136:VAL:O	2:CB:139:LYS:HB3	2.14	0.47
1:AA:975:A:N6	1:AA:1366:C:O2'	2.45	0.47
30:DG:16:ARG:CZ	30:DG:31:VAL:HG21	2.44	0.47
47:B1:6:GLU:HG3	47:B1:61:ARG:O	2.15	0.47
25:DA:953:A:H2'	25:DA:954:G:H8	1.80	0.47
32:DI:65:ALA:O	32:DI:68:LEU:HB2	2.14	0.47
29:BF:29:ASN:HB3	29:BF:112:MET:HE1	1.97	0.47
2:CB:32:ILE:HD11	2:CB:190:THR:HG22	1.96	0.47
25:DA:71:A:C2	43:DX:31:HIS:CE1	3.02	0.47
35:DP:86:LYS:HB3	35:DP:118:GLY:HA2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2036:C:P	58:BA:4649:HOH:O	2.73	0.47
25:DA:830:G:H4'	25:DA:831:G:OP2	2.15	0.47
46:D0:56:ASP:O	46:D0:57:PHE:HB2	2.14	0.47
1:AA:262:A:C6	1:AA:263:A:C6	3.03	0.47
1:CA:983:A:N1	1:CA:1222:G:N2	2.52	0.47
11:CK:34:ASP:HB3	11:CK:40:ILE:HD11	1.96	0.47
27:BD:147:LEU:HD12	27:BD:155:LEU:HD11	1.97	0.47
1:AA:875:C:O2'	8:AH:14:ARG:NH1	2.46	0.47
28:BE:77:ILE:HA	28:BE:77:ILE:HD13	1.63	0.47
1:AA:1097:C:H2'	1:AA:1098:C:H6	1.79	0.47
25:BA:221:A:N1	25:BA:265:A:O2'	2.44	0.47
45:BZ:54:HIS:ND1	45:BZ:101:PRO:HG3	2.30	0.47
1:CA:378:G:C6	1:CA:379:C:C4	3.01	0.47
25:DA:729:G:O5'	27:DD:208:LYS:NZ	2.48	0.47
1:CA:1007:C:H2'	1:CA:1008:C:H6	1.79	0.47
1:CA:55:A:C5	1:CA:56:U:C5	3.02	0.47
36:DQ:60:ARG:NH2	45:DZ:177:PRO:HG3	2.30	0.47
30:BG:21:ARG:HE	30:BG:21:ARG:HB3	1.41	0.47
25:BA:298:G:N7	58:BA:4997:HOH:O	2.35	0.47
1:CA:1392:G:N2	1:CA:1502:A:H8	2.12	0.47
38:BS:3:ARG:CZ	38:BS:3:ARG:HB2	2.44	0.47
25:DA:1529:G:C6	25:DA:1530:C:C4	3.02	0.47
16:AP:39:TYR:CE1	16:AP:41:PRO:HB3	2.50	0.47
38:BS:102:ALA:O	38:BS:106:ARG:N	2.34	0.47
26:DB:45:A:C6	26:DB:46:A:C5	3.02	0.47
1:CA:1127:G:C2'	1:CA:1147:C:H42	2.28	0.47
1:CA:1347:G:HO2'	1:CA:1373:G:H1	1.63	0.47
25:BA:1152:C:O2'	25:BA:1153:C:H5'	2.15	0.47
25:DA:2070:G:C2	25:DA:2442:C:C2	3.02	0.47
38:DS:95:HIS:C	38:DS:99:LYS:HB3	2.35	0.47
25:DA:144:C:H2'	25:DA:145:G:H8	1.80	0.47
29:DF:28:ILE:HG13	29:DF:112:MET:HG2	1.97	0.47
1:AA:832:C:N4	1:AA:855:G:C6	2.82	0.47
49:D3:46:ASN:O	49:D3:50:VAL:HG22	2.14	0.47
25:DA:475:U:C4	25:DA:481:G:O6	2.68	0.47
1:CA:129(A):G:N7	1:CA:189(E):U:O3'	2.48	0.47
25:BA:1021:A:C3'	25:BA:1021:A:C8	2.97	0.47
52:B6:14:THR:OG1	52:B6:48:VAL:O	2.32	0.47
6:CF:2:ARG:HB2	6:CF:4:TYR:CE2	2.49	0.47
27:BD:16:MET:HG2	27:BD:211:ARG:HH21	1.79	0.47
1:CA:1016:A:C5	1:CA:1017:G:H1'	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:920:U:O4'	1:CA:1080:A:C2	2.68	0.47
25:DA:9:U:HO2'	25:DA:10:G:P	2.36	0.47
25:BA:1372:U:H6	25:BA:1372:U:O5'	1.97	0.47
25:BA:1290:C:O2'	25:BA:1291:C:H5'	2.14	0.47
40:DU:41:ALA:O	40:DU:45:TYR:HD1	1.97	0.47
25:DA:323:G:H2'	29:DF:169:ASN:ND2	2.30	0.47
44:DY:19:LYS:HE3	44:DY:20:TYR:CE1	2.50	0.47
1:AA:432:A:H3'	1:AA:433:C:H6	1.80	0.47
4:CD:118:ARG:O	4:CD:121:VAL:N	2.48	0.47
25:DA:987:G:O2'	25:DA:1000:A:N3	2.37	0.47
25:DA:2261:C:C6	46:D0:16:SER:HB3	2.50	0.47
25:BA:70:G:H21	25:BA:71:A:H62	1.63	0.47
30:DG:33:ARG:HE	30:DG:162:THR:HG21	1.78	0.47
1:AA:983:A:H3'	1:AA:983:A:N3	2.29	0.47
1:AA:1104:G:H4'	2:AB:111:ARG:NH1	2.30	0.47
31:DH:88:LEU:N	31:DH:163:TYR:O	2.47	0.47
1:AA:872:A:C5	1:AA:874:G:C8	3.02	0.47
1:CA:1226:C:H2'	13:CM:103:THR:HB	1.96	0.47
1:AA:1351:U:O4'	7:AG:33:ASP:HB3	2.14	0.47
11:CK:104:GLN:O	11:CK:105:VAL:HG22	2.14	0.47
25:DA:2464:C:C2	25:DA:2487:G:C2	3.02	0.47
9:AI:4:TYR:CE1	9:AI:88:TYR:HA	2.49	0.47
10:AJ:55:LYS:HG2	10:AJ:56:HIS:N	2.29	0.47
1:AA:251:G:H4'	1:AA:252:U:O5'	2.15	0.47
28:DE:98:PRO:HD3	28:DE:175:VAL:HG13	1.95	0.47
7:AG:18:TYR:CD2	7:AG:59:LEU:HD22	2.50	0.47
25:DA:614:U:H5'	25:DA:614(C):A:N6	2.30	0.47
25:BA:2570:G:O6	58:BA:4312:HOH:O	2.18	0.47
18:AR:59:SER:N	18:AR:62:GLU:OE1	2.34	0.47
3:CC:152:ILE:HD12	3:CC:199:LYS:HD2	1.97	0.47
1:CA:452:A:H1'	1:CA:453:A:C8	2.49	0.47
25:DA:176:G:O2'	25:DA:177:G:H5'	2.15	0.47
37:BR:4:LEU:HA	37:BR:4:LEU:HD23	1.41	0.47
36:DQ:2:LEU:HA	36:DQ:2:LEU:HD12	1.61	0.47
39:BT:1:MET:HG3	39:BT:1:MET:O	2.13	0.47
25:BA:204:A:H8	25:BA:204:A:OP1	1.97	0.47
27:BD:35:LYS:HG2	27:BD:64:ILE:HD11	1.97	0.47
20:CT:67:ALA:HB2	20:CT:77:ALA:HB2	1.96	0.47
36:BQ:52:VAL:HA	36:BQ:55:VAL:HG13	1.97	0.47
40:DU:88:ILE:HG23	41:DV:48:GLY:O	2.14	0.47
35:BP:26:GLY:CA	35:BP:28:GLY:H	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:89:G:OP2	26:BB:89:G:H8	1.98	0.47
36:DQ:110:THR:HG23	36:DQ:113:GLN:OE1	2.14	0.47
25:BA:774:A:N3	25:BA:774:A:H2'	2.29	0.47
25:BA:1336:A:H2'	25:BA:1337:G:C8	2.50	0.47
36:BQ:31:ASP:HB2	36:BQ:32:TYR:HD1	1.80	0.47
17:AQ:5:VAL:O	17:AQ:6:LEU:HD12	2.15	0.47
4:AD:41:GLY:C	4:AD:43:HIS:H	2.18	0.47
25:BA:652(H):C:C2'	25:BA:652(I):C:H5'	2.44	0.47
8:CH:20:TYR:HD1	8:CH:65:TYR:CE2	2.32	0.47
8:AH:25:ASP:HB3	8:AH:58:TYR:CD2	2.50	0.47
25:BA:2291:U:H2'	25:BA:2292:C:C6	2.50	0.47
16:CP:51:VAL:CG1	16:CP:53:VAL:H	2.28	0.47
3:AC:32:LEU:HD13	3:AC:59:ARG:HH11	1.80	0.47
26:DB:66:A:H61	26:DB:109:C:C5'	2.27	0.47
1:CA:436:C:HO2'	1:CA:437:U:H6	1.57	0.47
4:AD:129:ASN:HD21	4:AD:144:ASP:CB	2.27	0.47
1:CA:947:G:H2'	1:CA:948:C:C6	2.50	0.47
1:AA:939:G:H2'	1:AA:940:C:C6	2.50	0.47
1:AA:545:C:O3'	4:AD:72:GLU:HB3	2.15	0.47
27:BD:5:LYS:HE3	27:BD:5:LYS:HB3	1.66	0.47
20:AT:61:SER:O	20:AT:65:LYS:HG3	2.15	0.47
25:DA:1820:U:C2	27:DD:202:LYS:HG2	2.50	0.47
1:AA:1132:C:H2'	1:AA:1133:G:H8	1.79	0.47
30:DG:19:LEU:HA	30:DG:22:ARG:HB2	1.96	0.47
1:AA:803:G:H2'	1:AA:804:U:O4'	2.15	0.47
47:D1:85:LEU:HB3	47:D1:89:GLU:HG3	1.97	0.47
28:BE:137:HIS:ND1	28:BE:138:PRO:HD2	2.29	0.47
27:BD:33:LEU:O	27:BD:64:ILE:HD12	2.15	0.47
36:BQ:42:ILE:HD12	36:BQ:97:VAL:HG21	1.96	0.47
27:DD:109:ASP:HB2	27:DD:197:GLY:HA2	1.96	0.47
25:DA:2524:G:N2	25:DA:2539:C:O2	2.42	0.47
1:AA:1066:C:O2'	1:AA:1067:A:H5'	2.15	0.47
44:DY:9:LYS:HB2	44:DY:27:VAL:O	2.14	0.47
3:AC:16:ARG:NH1	3:AC:183:ASP:OD2	2.44	0.47
25:BA:1309:G:H4'	53:B7:7:PRO:HG2	1.96	0.47
35:DP:60:MET:HA	54:D8:13:ARG:NH1	2.29	0.47
25:BA:1664:A:OP2	58:BA:5297:HOH:O	2.21	0.47
52:D6:8:LYS:HD3	54:D8:34:TRP:CD2	2.49	0.47
12:AL:60:LEU:HB2	12:AL:64:TYR:O	2.14	0.47
7:CG:134:ALA:O	7:CG:137:LYS:HB3	2.15	0.47
25:BA:2431:U:OP1	58:BA:4603:HOH:O	2.20	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DU:18:LEU:HD23	40:DU:18:LEU:HA	1.64	0.47
30:BG:33:ARG:HB2	30:BG:162:THR:HG21	1.96	0.47
1:CA:781:A:H4'	1:CA:1522:U:O2'	2.15	0.47
25:DA:1782:C:H1'	25:DA:2609:U:H5''	1.97	0.47
1:AA:668:G:O4'	15:AO:49:ASP:HB2	2.15	0.47
31:DH:137:ASP:HB3	31:DH:140:LYS:HB2	1.97	0.47
28:BE:201:THR:OG1	28:BE:202:LYS:N	2.48	0.47
25:DA:686:G:N2	25:DA:788:A:H61	2.12	0.47
20:CT:56:MET:HE1	20:CT:85:MET:HA	1.96	0.47
25:DA:572:A:H2'	25:DA:573:G:O4'	2.15	0.47
1:CA:377:G:OP1	16:CP:3:LYS:HD2	2.15	0.47
2:AB:215:LEU:O	2:AB:219:VAL:HG23	2.14	0.47
1:CA:450:G:OP1	16:CP:43:LYS:NZ	2.47	0.47
2:CB:68:ILE:HG13	2:CB:161:ALA:HB3	1.97	0.47
25:BA:652(G):G:H2'	25:BA:652(H):C:C6	2.49	0.47
9:CI:114:TYR:CD1	10:CJ:60:ARG:HB2	2.50	0.47
1:CA:426:G:OP1	4:CD:36:ARG:NH1	2.47	0.47
2:CB:28:PHE:CD2	2:CB:194:PRO:HG3	2.50	0.47
25:DA:533:G:H5'	40:DU:24:TYR:CE2	2.50	0.47
54:D8:57:ARG:HG3	54:D8:57:ARG:H	1.44	0.47
38:BS:27:SER:HA	38:BS:88:ASP:HB3	1.97	0.47
9:AI:126:SER:CA	9:AI:127:LYS:HB2	2.44	0.47
25:DA:1914:C:HO2'	25:DA:1915:U:P	2.35	0.47
7:AG:69:VAL:O	7:AG:138:LYS:HG3	2.15	0.47
25:DA:198:C:H5'	25:DA:2244:U:OP1	2.14	0.47
23:CV:8:U:O2'	23:CV:21:A:N1	2.34	0.47
1:AA:1124:G:O2'	1:AA:1126:U:O4	2.18	0.47
17:CQ:5:VAL:HG23	17:CQ:60:ILE:HD12	1.97	0.47
25:BA:265:A:H1'	25:BA:266:G:O4'	2.15	0.47
1:AA:1067:A:H8	1:AA:1067:A:O5'	1.96	0.47
25:DA:2537:U:H2'	25:DA:2538:C:C6	2.50	0.47
1:AA:1317:C:OP1	14:AN:17:LYS:HG2	2.14	0.47
25:DA:257:A:H2'	25:DA:258:G:O4'	2.15	0.47
25:BA:922:U:H2'	25:BA:923:C:C6	2.50	0.47
25:DA:1441:G:H2'	25:DA:1442:G:H8	1.79	0.47
1:CA:124:G:H2'	1:CA:125:U:H6	1.79	0.47
12:AL:124:LYS:HE3	12:AL:125:PRO:HD2	1.97	0.47
38:BS:110:LEU:HD12	38:BS:110:LEU:HA	1.81	0.47
4:AD:78:LEU:O	4:AD:81:GLU:N	2.48	0.47
12:CL:34:ARG:O	12:CL:61:THR:HG23	2.14	0.47
35:DP:38:GLN:C	35:DP:40:SER:H	2.18	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:862:C:H1'	1:CA:874:G:H5''	1.96	0.47
25:BA:2615:U:H2'	25:BA:2616:C:C6	2.50	0.47
40:BU:90:VAL:HG11	40:BU:95:LEU:HD13	1.96	0.47
33:BN:67:LEU:HA	33:BN:87:LEU:CD1	2.42	0.47
4:AD:122:ARG:NH2	4:AD:134:ASP:HB2	2.29	0.47
13:CM:90:LEU:C	13:CM:91:ARG:HG2	2.36	0.47
7:AG:113:GLU:CG	7:AG:119:ARG:HG2	2.45	0.47
45:BZ:39:VAL:CG2	45:BZ:44:PHE:HB2	2.44	0.47
35:BP:39:LYS:O	35:BP:39:LYS:HG2	2.14	0.47
21:AU:3:LYS:HB3	21:AU:14:TRP:CD1	2.50	0.47
25:BA:960:A:H2'	25:BA:962:G:H5'	1.97	0.47
1:AA:1089:G:C2'	1:AA:1090:U:H5'	2.44	0.47
1:CA:1095:U:P	1:CA:1108:G:H1	2.38	0.47
22:AY:45:ALA:HA	22:AY:53:LYS:HE3	1.97	0.47
4:CD:32:ALA:HA	4:CD:35:ARG:HG3	1.96	0.47
12:CL:33:ARG:HH11	12:CL:62:SER:HB3	1.78	0.47
25:DA:93:G:H2'	25:DA:94:C:C6	2.50	0.47
8:AH:81:HIS:ND1	8:AH:138:TRP:OXT	2.48	0.47
25:DA:2410:G:N2	25:DA:2411:A:H1'	2.30	0.47
1:AA:1245:A:N1	1:AA:1293:G:C6	2.83	0.47
25:BA:1583:A:H5'	25:BA:1584:C:H5''	1.96	0.47
1:CA:741:G:H2'	1:CA:742:G:O4'	2.14	0.47
29:DF:178:PRO:HB2	29:DF:201:VAL:CG2	2.45	0.47
26:BB:89:G:H2'	26:BB:90:A:C8	2.50	0.47
15:CO:7:GLU:O	15:CO:11:VAL:HG23	2.15	0.47
45:BZ:53:ILE:HG22	45:BZ:71:VAL:HB	1.97	0.47
25:DA:1420:U:HO2'	25:DA:1421:G:P	2.36	0.47
25:BA:2808:U:H3	25:BA:2892:A:H62	1.63	0.47
1:AA:1009:G:H3'	1:AA:1010:G:H8	1.80	0.47
34:BO:98:VAL:HG11	34:BO:114:ILE:HG23	1.97	0.47
25:BA:748:G:C8	42:BW:89:ALA:HB1	2.50	0.47
1:AA:580:U:H2'	1:AA:581:G:O4'	2.15	0.47
1:CA:885:G:O2'	1:CA:914:A:N1	2.36	0.47
6:AF:21:LEU:O	6:AF:25:ILE:HG12	2.15	0.47
35:DP:112:LEU:HD22	35:DP:113:LYS:N	2.30	0.47
1:AA:1499:A:O2'	1:AA:1520:G:H5'	2.14	0.47
29:BF:96:ASP:C	29:BF:96:ASP:OD1	2.52	0.47
1:AA:258:G:H2'	1:AA:259:G:H8	1.80	0.47
30:DG:11:TYR:CZ	30:DG:16:ARG:HD3	2.51	0.46
42:BW:14:PRO:HG2	42:BW:78:GLU:CG	2.40	0.46
44:BY:79:CYS:SG	44:BY:102:CYS:CB	2.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:527:C:C4	25:BA:2779:U:H2'	2.50	0.46
1:AA:1305:G:H5''	21:AU:4:GLY:HA3	1.97	0.46
1:AA:1149:C:P	9:AI:9:ARG:HH21	2.38	0.46
1:AA:1150:U:O2	10:AJ:39:PRO:HG2	2.15	0.46
26:DB:48:A:H4'	38:DS:95:HIS:CD2	2.41	0.46
1:CA:1151:A:O2'	1:CA:1152:A:H8	1.98	0.46
4:AD:121:VAL:HG11	4:AD:136:PRO:HA	1.98	0.46
1:CA:572:A:H5'	1:CA:573:A:OP2	2.15	0.46
25:DA:991:C:H5'	25:DA:991:C:C6	2.44	0.46
25:DA:1331:A:O2'	25:DA:1332:G:C8	2.66	0.46
1:AA:865:A:H5'	1:AA:1078:U:O4	2.15	0.46
1:AA:1506:U:O2'	1:AA:1507:A:H5'	2.14	0.46
25:BA:819:A:OP2	25:BA:1187:G:N2	2.36	0.46
3:AC:22:TRP:HE3	3:AC:23:TYR:O	1.97	0.46
1:AA:153:C:H42	1:AA:169:C:N4	2.12	0.46
1:AA:1236:A:H4'	1:AA:1304:G:H4'	1.97	0.46
15:AO:63:ARG:HG2	15:AO:67:LEU:HD12	1.97	0.46
25:DA:2275:C:C6	25:DA:2275:C:H5'	2.47	0.46
1:CA:818:G:O2'	1:CA:819:A:H5'	2.15	0.46
25:BA:2801(A):A:H1'	25:BA:2895:U:H1'	1.96	0.46
50:B4:7:PRO:HB2	50:B4:27:THR:HG21	1.97	0.46
1:AA:678:U:H2'	1:AA:679:C:C6	2.50	0.46
1:CA:216:G:H2'	1:CA:217:C:H6	1.79	0.46
8:AH:35:ILE:O	8:AH:38:ILE:N	2.45	0.46
25:DA:1849:G:H2'	25:DA:1850:G:C8	2.50	0.46
1:CA:790:A:C6	1:CA:791:G:C6	3.03	0.46
2:CB:112:VAL:O	2:CB:115:LEU:HB3	2.15	0.46
54:B8:42:ARG:HD2	58:B8:201:HOH:O	2.14	0.46
15:CO:61:GLY:O	15:CO:65:ARG:HD3	2.16	0.46
25:BA:2773:C:H2'	25:BA:2774:C:H6	1.80	0.46
3:AC:195:VAL:HG12	3:AC:196:LEU:O	2.15	0.46
25:BA:2444:G:OP2	29:BF:68:LYS:HD2	2.14	0.46
4:AD:13:ARG:O	4:AD:15:GLU:N	2.48	0.46
25:DA:1815:A:C5	25:DA:1817:G:C6	3.03	0.46
25:DA:1655:A:C8	25:DA:1656:C:C5	3.02	0.46
15:CO:48:LYS:HD2	15:CO:48:LYS:HA	1.78	0.46
1:AA:515:G:H2'	1:AA:516:U:O4'	2.15	0.46
31:BH:20:ALA:HB1	31:BH:21:PRO:HD2	1.97	0.46
25:DA:1364:G:N7	47:D1:3:LYS:HE2	2.31	0.46
52:B6:25:LYS:HE3	52:B6:30:THR:O	2.15	0.46
2:CB:162:ILE:HG13	2:CB:184:VAL:HG13	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BY:79:CYS:HB2	44:BY:81:LYS:H	1.79	0.46
38:DS:94:TYR:CE2	38:DS:99:LYS:HD2	2.50	0.46
1:AA:352:C:H2'	1:AA:352:C:O2	2.15	0.46
25:DA:2680:C:OP2	28:DE:111:ARG:NH2	2.44	0.46
45:BZ:44:PHE:CD1	45:BZ:44:PHE:C	2.89	0.46
27:DD:68:LYS:HD2	27:DD:70:TRP:CZ2	2.50	0.46
25:DA:320:A:H4'	25:DA:322:A:N7	2.30	0.46
2:CB:178:ARG:HH22	8:CH:68:ARG:NH1	2.14	0.46
2:CB:135:GLN:O	2:CB:138:LEU:HD12	2.15	0.46
1:AA:195:A:H2'	1:AA:196:A:C8	2.50	0.46
1:AA:1250:A:H2'	1:AA:1251:A:C8	2.50	0.46
30:DG:25:TYR:HB3	30:DG:30:GLU:HB2	1.97	0.46
11:AK:59:TYR:CE2	11:AK:63:LEU:HD12	2.50	0.46
25:DA:970:C:H2'	25:DA:971:C:C6	2.50	0.46
30:BG:6:ALA:HB3	30:BG:104:GLU:OE1	2.15	0.46
25:BA:2223:G:C2'	25:BA:2224:G:H5'	2.45	0.46
13:AM:14:ARG:HA	13:AM:44:ARG:HA	1.97	0.46
7:CG:31:MET:SD	7:CG:34:GLY:HA2	2.55	0.46
16:AP:75:ARG:O	16:AP:78:GLY:N	2.43	0.46
35:DP:26:GLY:HA3	35:DP:27:HIS:CB	2.45	0.46
1:AA:264:U:O2	17:AQ:64:PRO:HG2	2.15	0.46
25:DA:236:C:H2'	25:DA:237:C:C6	2.50	0.46
25:BA:2394:C:OP1	35:BP:64:LYS:HB2	2.15	0.46
25:DA:2016:U:O2	51:D5:7:PRO:HG2	2.14	0.46
25:BA:65:C:H2'	25:BA:66:C:H6	1.79	0.46
1:AA:998:G:H1	1:AA:1043:C:H42	1.63	0.46
31:DH:52:VAL:HG12	31:DH:65:HIS:CD2	2.50	0.46
32:BI:96:ASP:O	32:BI:99:GLU:N	2.48	0.46
28:DE:150:VAL:HG13	28:DE:154:LYS:HG3	1.96	0.46
25:DA:1676:A:OP2	25:DA:1676:A:H8	1.99	0.46
2:AB:133:LYS:HE2	2:AB:133:LYS:HB3	1.81	0.46
25:DA:947:G:N3	25:DA:984:A:H2	2.13	0.46
25:DA:736:C:H42	25:DA:760:G:H1	1.63	0.46
25:BA:244:A:H2'	25:BA:245:G:O4'	2.16	0.46
25:DA:681:G:H2'	25:DA:682:G:O4'	2.16	0.46
1:CA:328:C:H4'	1:CA:329:A:O5'	2.15	0.46
42:DW:31:GLU:O	42:DW:34:ASN:HB2	2.16	0.46
1:CA:385:C:O2'	1:CA:386:C:H5'	2.16	0.46
1:CA:377:G:N2	1:CA:386:C:N3	2.41	0.46
25:BA:2615:U:H1'	51:B5:7:PRO:HB3	1.96	0.46
25:DA:2567:G:H2'	25:DA:2568:C:H6	1.78	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:651:C:H2'	1:AA:652:U:C6	2.50	0.46
25:DA:847:U:H5'	25:DA:848:G:OP2	2.15	0.46
4:CD:158:ILE:O	4:CD:162:LEU:HB2	2.16	0.46
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.51	0.46
25:BA:1914:C:O2'	25:BA:1915:U:P	2.73	0.46
4:CD:121:VAL:O	4:CD:134:ASP:HA	2.15	0.46
48:D2:50:ILE:C	48:D2:52:ASP:H	2.19	0.46
1:AA:984:C:H2'	1:AA:985:C:C6	2.50	0.46
4:CD:68:TYR:CD2	4:CD:97:LEU:HD22	2.50	0.46
31:DH:149:ARG:HD2	31:DH:164:TYR:HE1	1.79	0.46
2:CB:129:GLU:C	2:CB:130:ARG:HD2	2.36	0.46
7:AG:74:GLU:OE1	7:AG:95:ARG:NH2	2.48	0.46
1:CA:878:G:H5''	1:CA:879:C:OP2	2.16	0.46
30:BG:3:LEU:HD12	30:BG:5:VAL:HG12	1.96	0.46
1:CA:406:G:H21	4:CD:119:GLN:NE2	2.14	0.46
25:BA:1584:C:H3'	25:BA:1584:C:H6	1.80	0.46
26:DB:7:G:H4'	38:DS:29:PHE:CD1	2.51	0.46
33:DN:33:LEU:HD12	33:DN:38:HIS:CD2	2.51	0.46
4:CD:101:LEU:HD23	4:CD:138:TYR:HB3	1.96	0.46
1:CA:1085:U:H3'	1:CA:1086:U:H5	1.80	0.46
25:DA:817:C:H2'	25:DA:818:G:H8	1.80	0.46
9:CI:42:ARG:O	9:CI:74:ILE:HG21	2.15	0.46
25:BA:1781:C:H6	25:BA:1781:C:H5'	1.79	0.46
30:DG:145:THR:OG1	30:DG:146:TYR:N	2.44	0.46
25:BA:2578:G:N3	25:BA:2578:G:H2'	2.29	0.46
53:B7:8:ASN:C	53:B7:8:ASN:OD1	2.53	0.46
1:CA:197:A:N6	1:CA:221:C:H5'	2.30	0.46
1:CA:325:A:H2'	1:CA:326:G:O4'	2.15	0.46
34:BO:9:GLU:O	34:BO:83:ALA:HA	2.15	0.46
3:CC:125:GLU:HA	3:CC:191:THR:HG22	1.98	0.46
27:DD:179:SER:O	27:DD:275:LYS:HB2	2.15	0.46
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.50	0.46
22:AY:32:LYS:HE3	25:BA:2507:C:OP1	2.16	0.46
49:B3:31:LEU:HD23	49:B3:31:LEU:HA	1.61	0.46
25:DA:826:U:OP1	25:DA:2428:G:H3'	2.15	0.46
1:CA:1366:C:H2'	1:CA:1367:C:C6	2.50	0.46
8:AH:20:TYR:HE1	8:AH:78:GLN:HE22	1.64	0.46
8:AH:20:TYR:HA	8:AH:65:TYR:OH	2.14	0.46
36:DQ:38:GLU:HB2	36:DQ:127:ILE:HB	1.97	0.46
1:CA:880:C:H2'	1:CA:881:G:C8	2.50	0.46
47:B1:60:PHE:CE1	47:B1:95:LEU:HD11	2.44	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B7:9:ARG:NH2	53:B7:47:ARG:HG3	2.30	0.46
22:AY:63:LEU:O	22:AY:70:ILE:HA	2.15	0.46
25:DA:14:A:H5''	25:DA:15:G:OP2	2.16	0.46
44:DY:28:LYS:HG2	44:DY:40:GLU:HG3	1.97	0.46
25:BA:2206:G:OP2	25:BA:2206:G:H4'	2.14	0.46
32:DI:29:TYR:CD2	32:DI:30:LEU:HD23	2.49	0.46
43:BX:31:HIS:HD2	43:BX:33:LYS:H	1.59	0.46
1:AA:983:A:H2	1:AA:984:C:C6	2.33	0.46
44:BY:15:VAL:HG21	44:BY:42:VAL:HG11	1.97	0.46
43:BX:12:VAL:HG22	43:BX:29:TRP:CE2	2.50	0.46
29:DF:53:THR:O	29:DF:56:GLU:N	2.42	0.46
35:BP:88:LEU:HA	35:BP:88:LEU:HD23	1.65	0.46
29:BF:7:TYR:HB2	29:BF:22:ALA:CB	2.45	0.46
25:BA:2690:C:H5''	25:BA:2872:G:N2	2.30	0.46
1:CA:665:A:N3	1:CA:732:C:H2'	2.30	0.46
1:CA:839:U:H5'	1:CA:840:C:H5	1.80	0.46
34:BO:64:ARG:O	34:BO:82:ASN:HA	2.15	0.46
25:BA:668:G:H5'	25:BA:669:G:OP2	2.14	0.46
25:DA:1420:U:O2'	25:DA:1421:G:OP1	2.28	0.46
25:BA:2808:U:H2'	25:BA:2809:A:H5'	1.96	0.46
25:BA:272(J):C:H2'	25:BA:274:G:O4'	2.15	0.46
2:AB:184:VAL:O	2:AB:198:ASP:HB2	2.16	0.46
1:AA:848:C:O2'	1:AA:849:C:H5'	2.16	0.46
20:AT:53:LEU:HA	20:AT:56:MET:HG2	1.98	0.46
4:CD:150:GLU:HA	4:CD:153:ARG:HE	1.80	0.46
25:BA:1665:A:N6	58:BA:5296:HOH:O	2.49	0.46
29:DF:70:THR:C	29:DF:72:ARG:H	2.18	0.46
29:BF:158:THR:OG1	29:BF:159:GLY:N	2.48	0.46
20:CT:58:LYS:HE3	20:CT:62:LEU:HD11	1.97	0.46
11:CK:122:LYS:HE2	11:CK:122:LYS:HB3	1.70	0.46
46:D0:34:GLY:N	46:D0:61:ALA:O	2.28	0.46
6:AF:33:TYR:HB2	6:AF:75:LEU:HD12	1.97	0.46
3:CC:24:ALA:CB	3:CC:29:TYR:HB2	2.40	0.46
25:BA:2298:A:H2'	25:BA:2299:G:O4'	2.16	0.46
25:BA:652(G):G:H2'	25:BA:652(H):C:H6	1.81	0.46
45:DZ:24:LEU:HD23	45:DZ:44:PHE:CD1	2.51	0.46
1:AA:1347:G:C8	9:AI:107:ARG:HB3	2.50	0.46
25:DA:2302:G:H2'	25:DA:2303:G:C8	2.50	0.46
46:D0:41:ARG:HA	46:D0:41:ARG:HD3	1.63	0.46
1:CA:968:A:C8	1:CA:1062:U:H4'	2.51	0.46
25:DA:2611:U:OP2	25:DA:2611:U:H3'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DS:66:ALA:O	38:DS:69:VAL:HG12	2.16	0.46
39:BT:9:LEU:O	39:BT:12:SER:OG	2.32	0.46
25:DA:1515:G:H2'	25:DA:1516:C:C6	2.49	0.46
1:CA:1007:C:H2'	1:CA:1008:C:C6	2.50	0.46
1:AA:1042:G:H2'	1:AA:1043:C:O4'	2.14	0.46
25:DA:841:A:H2'	25:DA:842:G:C8	2.50	0.46
25:BA:557:U:H2'	25:BA:558:G:H8	1.81	0.46
35:DP:95:VAL:CG2	35:DP:125:VAL:HG12	2.45	0.46
52:B6:16:CYS:SG	52:B6:18:ARG:HG3	2.55	0.46
25:BA:2691:C:O3'	25:BA:2871:C:H4'	2.16	0.46
2:AB:208:ILE:H	2:AB:208:ILE:HG12	1.41	0.46
25:DA:2766:G:H5''	25:DA:2767:C:OP2	2.14	0.46
25:DA:2278:A:OP1	36:DQ:11:LYS:HE2	2.16	0.46
1:CA:570:G:H2'	1:CA:571:U:C6	2.50	0.46
48:D2:21:LEU:HD23	48:D2:21:LEU:HA	1.60	0.46
52:D6:17:LYS:HD3	52:D6:17:LYS:HA	1.73	0.46
37:DR:67:LEU:HD13	37:DR:76:VAL:HG21	1.96	0.46
1:CA:784:C:H2'	1:CA:785:G:C8	2.50	0.46
38:DS:78:LEU:HD22	38:DS:82:ILE:O	2.15	0.46
6:AF:76:ALA:HB1	6:AF:80:ARG:NH2	2.30	0.46
1:AA:1392:G:H2'	1:AA:1393:U:C6	2.50	0.46
25:BA:1109:C:C5	25:BA:1110:G:C6	3.03	0.46
1:CA:149:A:O2'	1:CA:150:C:H5'	2.15	0.46
25:BA:330:A:H2	25:BA:1210:A:C2'	2.24	0.46
25:BA:271(I):G:H1	25:BA:271(O):C:N4	2.14	0.46
4:AD:121:VAL:O	4:AD:134:ASP:HA	2.16	0.46
10:AJ:67:THR:O	10:AJ:67:THR:OG1	2.34	0.46
41:DV:87:HIS:NE2	41:DV:89:GLN:HG2	2.31	0.46
1:CA:1133:G:N2	1:CA:1142:G:C4	2.83	0.46
1:CA:509:A:H5''	4:CD:55:ALA:HB2	1.98	0.46
25:BA:2405:G:O2'	25:BA:2411:A:N6	2.49	0.46
25:DA:1495:A:H2'	25:DA:1496:A:H8	1.74	0.46
29:DF:164:ARG:O	29:DF:168:ARG:HB2	2.16	0.46
2:AB:21:ARG:NH1	2:AB:23:ARG:HB2	2.30	0.46
25:DA:590:A:OP1	29:DF:95:ARG:NH1	2.49	0.46
45:DZ:9:TYR:CE2	45:DZ:35:ARG:HG3	2.50	0.46
1:CA:1316:G:H2'	1:CA:1317:C:H5''	1.97	0.46
29:BF:176:LEU:HD21	29:BF:181:LEU:HA	1.97	0.46
51:D5:51:TYR:CE1	51:D5:56:LYS:HG3	2.50	0.46
25:BA:1257:C:H4'	29:BF:83:PHE:CE2	2.50	0.46
29:DF:51:THR:HB	29:DF:88:VAL:HG11	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:262:A:C6	1:CA:263:A:C6	3.03	0.46
25:BA:614(C):A:C4	29:BF:180:GLY:HA2	2.50	0.46
27:BD:85:ASP:HB2	27:BD:92:ILE:HD13	1.98	0.46
12:AL:24:VAL:HG13	12:AL:98:TYR:CE2	2.50	0.46
30:DG:121:ASN:HA	30:DG:122:PRO:HD3	1.68	0.46
54:B8:40:GLU:O	54:B8:44:LYS:HG3	2.16	0.46
45:BZ:70:LEU:HG	45:BZ:91:LEU:HD21	1.97	0.46
23:AV:31:G:C2	23:AV:40:C:C2	3.03	0.46
11:CK:84:VAL:HG12	11:CK:110:ASP:OD1	2.15	0.46
25:DA:774:A:N3	25:DA:774:A:H2'	2.31	0.46
32:DI:140:LEU:HD23	32:DI:140:LEU:HA	1.73	0.46
42:BW:36:LEU:HA	42:BW:36:LEU:HD23	1.53	0.46
54:D8:16:ILE:HD12	54:D8:59:LYS:HD2	1.97	0.46
25:DA:671:C:H2'	25:DA:672:C:C6	2.51	0.46
25:BA:1805:U:H5''	27:BD:250:TRP:CD2	2.50	0.46
27:DD:36:PRO:HA	27:DD:61:LEU:CD1	2.46	0.46
10:CJ:6:ILE:HA	10:CJ:97:GLU:O	2.15	0.46
28:BE:59:VAL:HG21	28:BE:74:PRO:HB3	1.98	0.46
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.51	0.46
37:BR:2:ARG:O	37:BR:2:ARG:HG2	2.16	0.46
1:CA:1399:C:C2	1:CA:1502:A:N6	2.84	0.46
18:CR:52:PRO:O	18:CR:56:THR:HG23	2.15	0.46
25:BA:833:U:H2'	25:BA:834:C:C6	2.51	0.46
25:DA:2295:C:H5	38:DS:13:ARG:HH22	1.63	0.46
25:DA:2295:C:H5	38:DS:13:ARG:NH2	2.13	0.46
8:AH:25:ASP:HB3	8:AH:58:TYR:HD2	1.81	0.46
25:BA:807:U:OP2	35:BP:41:ARG:NH2	2.47	0.46
47:D1:94:LEU:HD23	47:D1:94:LEU:HA	1.70	0.46
28:BE:60:ASN:O	28:BE:64:LYS:HB2	2.15	0.46
33:BN:48:MET:HB2	33:BN:48:MET:HE3	1.86	0.46
1:AA:834:C:H2'	1:AA:835:U:H6	1.81	0.46
6:AF:68:PRO:HG2	6:AF:71:ARG:HD2	1.98	0.46
25:DA:854:G:H2'	25:DA:855:G:C8	2.50	0.46
25:DA:2461:C:H2'	25:DA:2462:U:H6	1.81	0.46
1:CA:781:A:H5'	1:CA:782:A:OP2	2.16	0.46
1:CA:124:G:H2'	1:CA:125:U:C6	2.51	0.46
25:DA:137:C:N4	25:DA:139:G:O6	2.48	0.46
25:BA:1260:G:C6	25:BA:1261:C:C4	3.03	0.46
2:AB:103:THR:HA	2:AB:180:LEU:HD11	1.97	0.46
27:DD:65:ILE:HG21	27:DD:106:ILE:HG22	1.98	0.46
40:DU:79:PHE:CZ	40:DU:83:LEU:HD21	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:725:G:C6	25:BA:726:G:N1	2.84	0.46
1:AA:1112:C:H1'	3:AC:179:ARG:HE	1.80	0.46
25:BA:1786:A:H1'	25:BA:1938:A:N6	2.30	0.46
12:AL:56:ALA:O	12:AL:68:ALA:N	2.42	0.46
25:BA:824:A:H1'	25:BA:2358:G:N7	2.30	0.46
7:AG:120:ILE:HG12	7:AG:120:ILE:H	1.47	0.46
34:DO:89:ASN:OD1	34:DO:89:ASN:N	2.48	0.46
29:DF:149:ASP:OD2	29:DF:149:ASP:N	2.47	0.46
25:DA:2418:A:C2	25:DA:2419:U:C2	3.03	0.46
1:CA:408:A:C6	1:CA:409:G:C5	3.04	0.46
20:CT:82:SER:O	20:CT:86:ARG:HG3	2.16	0.46
1:AA:633:G:H2'	1:AA:634:C:C6	2.50	0.46
26:DB:90:A:C6	26:DB:91:C:H1'	2.50	0.46
25:DA:330:A:O2'	25:DA:331:A:H2'	2.15	0.46
1:AA:925:G:H1'	1:AA:1502:A:C4	2.51	0.46
1:AA:354:G:C2	1:AA:355:C:C5	3.04	0.46
8:AH:20:TYR:HD1	8:AH:65:TYR:CE2	2.34	0.46
25:DA:1007:C:H2'	25:DA:1008:C:H5	1.80	0.46
25:DA:1021:A:H3'	25:DA:1021:A:H8	1.80	0.46
27:DD:51:VAL:CG1	27:DD:54:ARG:HD3	2.46	0.46
49:D3:52:HIS:CD2	49:D3:53:LEU:HG	2.51	0.46
30:BG:94:LEU:HD23	30:BG:94:LEU:HA	1.69	0.46
7:AG:36:LYS:O	7:AG:40:ALA:N	2.46	0.46
39:DT:11:GLU:O	39:DT:15:VAL:HG23	2.16	0.46
35:BP:36:LYS:O	35:BP:40:SER:HB3	2.16	0.46
1:CA:734:G:H2'	1:CA:735:C:H6	1.81	0.46
25:BA:754:C:H2'	25:BA:755:C:C6	2.50	0.46
1:CA:330:C:H2'	1:CA:331:G:H5'	1.98	0.46
25:DA:41:C:H2'	25:DA:42:G:C8	2.51	0.46
1:AA:52:G:O2'	1:AA:53:A:H5'	2.16	0.46
1:CA:124:G:H1	1:CA:237:C:H42	1.62	0.46
9:CI:71:SER:HA	9:CI:74:ILE:HB	1.97	0.46
1:CA:1427:U:H2'	1:CA:1428:A:C8	2.51	0.46
29:DF:181:LEU:O	29:DF:205:ARG:NH2	2.44	0.46
36:BQ:30:GLY:HA2	36:BQ:107:ALA:HB2	1.98	0.46
27:BD:166:GLN:HB2	27:BD:174:ILE:HG22	1.98	0.46
43:BX:5:TYR:CE1	48:B2:30:ARG:HB2	2.50	0.46
25:BA:1508:A:H4'	25:BA:1509(A):A:C4	2.51	0.46
28:DE:117:MET:HG3	28:DE:117:MET:H	1.62	0.46
29:BF:140:LEU:HD13	29:BF:140:LEU:HA	1.69	0.46
40:BU:104:GLN:H	40:BU:104:GLN:HG3	1.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:620:G:N3	25:BA:620:G:H5'	2.30	0.46
22:AY:40:ARG:O	22:AY:71:VAL:HA	2.15	0.46
1:CA:1157:A:H4'	1:CA:1158:C:O5'	2.15	0.46
25:DA:850:C:O3'	49:D3:49:LYS:HE2	2.16	0.46
25:BA:612:C:H2'	25:BA:613:G:O4'	2.16	0.46
29:DF:187:VAL:HG12	35:DP:3:LEU:HD12	1.96	0.46
25:BA:1399:C:P	43:BX:25:LYS:HZ1	2.39	0.46
25:DA:1332:G:H4'	25:DA:1333:C:OP2	2.16	0.46
1:CA:518:C:H2'	1:CA:530:G:H8	1.77	0.46
25:BA:2466:C:C2'	25:BA:2467:C:H5'	2.45	0.46
1:CA:10:A:H2'	1:CA:11:G:C8	2.50	0.46
25:DA:528:A:C8	25:DA:528:A:H3'	2.50	0.46
25:BA:1784:A:P	58:BA:5166:HOH:O	2.73	0.46
2:CB:47:THR:HG23	2:CB:202:PRO:HG2	1.98	0.46
41:DV:37:VAL:HG12	41:DV:39:LEU:H	1.81	0.46
1:CA:1343:G:C6	1:CA:1344:C:N4	2.84	0.46
14:CN:33:VAL:HA	14:CN:39:LEU:O	2.16	0.46
25:DA:370:G:H4'	25:DA:371:A:OP2	2.16	0.46
19:CS:51:VAL:O	19:CS:57:HIS:HA	2.16	0.46
1:CA:604:G:C6	1:CA:605:U:N3	2.84	0.46
31:BH:9:ILE:HD13	31:BH:72:ILE:HG22	1.97	0.46
25:BA:2096:U:H5'	25:BA:2097:C:OP2	2.16	0.46
25:BA:1889:A:O2'	25:BA:2087:G:H5'	2.16	0.46
25:DA:1827:C:C2'	25:DA:1828:G:H5'	2.46	0.46
34:DO:113:LYS:O	34:DO:117:LEU:HD12	2.15	0.46
20:AT:56:MET:HE3	20:AT:88:VAL:HG11	1.96	0.46
18:AR:43:PHE:C	18:AR:51:LEU:HD12	2.35	0.46
41:BV:5:VAL:HG11	41:BV:57:VAL:HG21	1.97	0.46
25:BA:27:G:O2'	25:BA:28:A:OP2	2.32	0.46
4:AD:70:ILE:HG12	4:AD:71:SER:H	1.81	0.46
31:DH:13:LYS:HA	31:DH:14:GLY:HA2	1.57	0.46
25:BA:1268:A:C2	25:BA:2013:A:C4	3.04	0.46
36:BQ:58:PHE:HB3	36:BQ:61:GLY:HA3	1.98	0.46
1:AA:937:A:H5''	1:AA:938:A:OP2	2.16	0.46
36:BQ:69:PHE:CD1	36:BQ:70:PRO:HD2	2.51	0.46
1:CA:273:A:N6	1:CA:274:A:C6	2.84	0.46
25:DA:704:G:H1'	25:DA:726:G:N2	2.30	0.46
1:AA:784:C:C2	1:AA:799:G:N2	2.84	0.46
25:DA:1464:C:C2	25:DA:1465:G:C8	3.04	0.46
1:AA:574:A:N3	1:AA:883:C:H1'	2.31	0.46
25:DA:1925:C:O2'	25:DA:1926:U:H5'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:522:C:H5''	12:AL:120:TYR:OH	2.16	0.46
22:AY:4:ILE:O	22:AY:4:ILE:HG22	2.15	0.46
25:BA:236:C:H2'	25:BA:237:C:C6	2.50	0.46
1:AA:137:C:O5'	1:AA:137:C:H6	1.98	0.46
25:BA:981:A:H2	25:BA:2027:G:N3	2.13	0.46
25:BA:1705:G:C6	25:BA:1706:U:C4	3.04	0.46
25:DA:517:C:OP1	51:D5:16:ARG:NH2	2.45	0.46
1:CA:976:G:H5''	1:CA:1358:U:O2	2.15	0.46
9:AI:114:TYR:CD2	9:AI:114:TYR:N	2.84	0.46
25:BA:847:U:C5	25:BA:933:A:N6	2.84	0.46
25:BA:1047:G:H4'	25:BA:1047:G:OP1	2.16	0.46
25:BA:2790:A:N3	25:BA:2790:A:H2'	2.31	0.46
2:CB:165:VAL:HG23	2:CB:166:ASP:N	2.30	0.46
25:BA:413:C:H2'	25:BA:414:C:H6	1.78	0.46
28:BE:116:VAL:CG1	28:BE:122:PHE:CD2	2.99	0.46
42:DW:51:LEU:O	42:DW:54:ALA:HB3	2.16	0.46
31:BH:125:VAL:HG12	31:BH:127:GLU:O	2.15	0.46
7:AG:69:VAL:CG1	7:AG:100:ALA:HA	2.46	0.46
1:AA:308:C:H2'	1:AA:309:G:C8	2.51	0.46
10:CJ:55:LYS:HE2	10:CJ:55:LYS:HB3	1.45	0.46
4:AD:192:GLU:C	4:AD:194:LEU:N	2.70	0.46
48:D2:32:LEU:O	48:D2:35:LEU:N	2.49	0.46
1:AA:1300:G:HO2'	1:AA:1301:U:P	2.39	0.46
1:CA:382:A:H2'	1:CA:383:A:H8	1.80	0.46
36:BQ:43:THR:HA	36:BQ:94:VAL:HG12	1.97	0.46
1:AA:1249:C:O4'	9:AI:70:LYS:HE2	2.16	0.46
25:BA:2837:G:H5''	58:BA:4879:HOH:O	2.15	0.46
21:AU:25:LYS:HA	21:AU:26:LYS:NZ	2.31	0.46
25:DA:699:A:H2'	25:DA:700:G:O4'	2.16	0.46
47:B1:22:GLY:O	47:B1:32:LYS:NZ	2.49	0.46
16:CP:68:ASP:C	16:CP:70:ALA:N	2.68	0.46
3:AC:56:ASP:O	3:AC:57:ILE:HG13	2.16	0.46
32:DI:41:GLU:HA	32:DI:44:LEU:HB3	1.97	0.46
3:CC:189:ALA:HB3	3:CC:196:LEU:HB2	1.98	0.46
37:DR:118:GLU:HG3	37:DR:118:GLU:H	1.26	0.46
37:BR:18:LEU:HA	37:BR:18:LEU:HD23	1.59	0.46
23:AV:2:G:N3	23:AV:2:G:H2'	2.30	0.46
25:BA:705:A:H2'	25:BA:706:A:O4'	2.16	0.46
26:BB:119:G:O2'	26:BB:120:A:H5'	2.13	0.45
1:CA:1501:C:OP2	1:CA:1504:G:H2'	2.15	0.45
1:CA:922:G:C2	1:CA:923:A:C4	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:215:LEU:HD23	2:AB:215:LEU:HA	1.67	0.45
1:AA:170:U:O2'	1:AA:171:A:H5'	2.15	0.45
17:AQ:43:LEU:HB3	17:AQ:69:LYS:CE	2.39	0.45
25:BA:2298:A:N6	25:BA:2318:G:H8	2.13	0.45
1:CA:1189:C:O2	58:CA:2101:HOH:O	2.20	0.45
29:DF:184:TYR:CE1	35:DP:3:LEU:HD21	2.51	0.45
25:DA:848:G:C4	25:DA:933:A:C8	3.04	0.45
1:CA:1291:G:H2'	1:CA:1292:U:C6	2.51	0.45
35:BP:45:LEU:HD23	35:BP:45:LEU:HA	1.28	0.45
16:CP:53:VAL:HG13	16:CP:79:VAL:HG23	1.98	0.45
3:CC:30:ARG:NH2	14:CN:38:GLY:HA2	2.30	0.45
32:DI:126:TYR:HB2	32:DI:142:VAL:O	2.15	0.45
1:AA:323:U:H2'	1:AA:324:G:O4'	2.16	0.45
2:CB:130:ARG:HB3	2:CB:131:PRO:HD2	1.98	0.45
32:BI:29:TYR:HD2	32:BI:30:LEU:HD23	1.81	0.45
1:AA:671:G:H2'	1:AA:672:U:O4'	2.16	0.45
1:AA:1054:C:O2'	1:AA:1055:A:H5''	2.16	0.45
42:BW:65:LEU:HD12	42:BW:68:ARG:HE	1.81	0.45
26:DB:6:C:C2	26:DB:116:G:N2	2.84	0.45
25:DA:271(K):U:O2'	25:DA:271(M):G:N2	2.49	0.45
38:BS:61:ASN:O	38:BS:65:VAL:HG23	2.16	0.45
2:CB:111:ARG:HD3	2:CB:111:ARG:HA	1.58	0.45
1:AA:657:G:C2	1:AA:658:G:C8	3.04	0.45
12:AL:24:VAL:CG1	12:AL:26:ALA:HB2	2.46	0.45
33:BN:128:HIS:HA	33:BN:129:PRO:HD2	1.46	0.45
32:BI:38:LEU:HB3	32:BI:40:THR:HG22	1.98	0.45
25:BA:1721:G:H3'	25:BA:1722:A:H5''	1.98	0.45
37:DR:97:VAL:HG23	37:DR:114:VAL:HG23	1.98	0.45
25:BA:1632:A:N6	25:BA:1633:G:C6	2.84	0.45
25:DA:1164:G:H2'	25:DA:1165:U:C6	2.52	0.45
25:BA:297:C:H5''	44:BY:87:LYS:HG3	1.98	0.45
25:BA:2355:C:H1'	46:B0:39:ARG:HH21	1.82	0.45
25:DA:2032:G:H4'	58:DA:4589:HOH:O	2.15	0.45
25:BA:2088:G:C6	25:BA:2089:U:C4	3.04	0.45
11:AK:125:PHE:CD2	11:AK:125:PHE:N	2.84	0.45
15:CO:16:ALA:HB1	15:CO:21:ASP:HB3	1.98	0.45
25:BA:518:G:H2'	25:BA:519:U:C6	2.51	0.45
25:DA:2335:A:O2'	25:DA:2337:G:N7	2.41	0.45
25:BA:2623:G:H4'	25:BA:2825:C:O2	2.16	0.45
25:BA:2461:C:H2'	25:BA:2462:U:H6	1.81	0.45
1:CA:975:A:H4'	1:CA:1358:U:O2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:55:A:C6	1:AA:56:U:C4	3.04	0.45
25:DA:271(Q):G:O2'	25:DA:271(R):G:OP2	2.30	0.45
42:BW:86:LEU:HD12	42:BW:87:PRO:CD	2.41	0.45
1:AA:1225:A:H5'	1:AA:1226:C:OP2	2.16	0.45
25:BA:2615:U:C2	51:B5:7:PRO:HA	2.51	0.45
25:BA:1332:G:N2	25:BA:1609:A:C2'	2.78	0.45
1:CA:1347:G:H22	1:CA:1374:A:P	2.38	0.45
1:CA:501:C:OP1	12:CL:117:ARG:NH2	2.49	0.45
13:AM:37:THR:HG23	13:AM:59:TYR:CD2	2.46	0.45
25:BA:1359:A:N1	25:BA:1372:U:O4	2.49	0.45
22:AY:62:HIS:O	22:AY:63:LEU:HB2	2.16	0.45
32:DI:26:ALA:HA	32:DI:30:LEU:HB2	1.98	0.45
25:DA:1124:C:H1'	55:D9:36:GLN:NE2	2.31	0.45
1:CA:986:A:N3	19:CS:52:TYR:OH	2.41	0.45
37:DR:107:ASP:OD2	37:DR:108:GLY:N	2.50	0.45
1:AA:692:U:O2'	1:AA:694:A:N7	2.41	0.45
33:BN:138:LEU:HD23	33:BN:138:LEU:HA	1.36	0.45
31:DH:87:LEU:HA	31:DH:163:TYR:O	2.16	0.45
16:CP:55:ARG:O	16:CP:58:TYR:N	2.45	0.45
17:AQ:31:LEU:O	17:AQ:31:LEU:HG	2.15	0.45
4:CD:57:ARG:HG2	4:CD:202:LEU:O	2.17	0.45
26:DB:83:G:H1	26:DB:94:C:H42	1.64	0.45
25:DA:1006:C:N3	25:DA:1138:G:C2	2.84	0.45
25:DA:1341:U:OP1	25:DA:1397:U:N3	2.37	0.45
40:DU:104:GLN:OE1	40:DU:105:VAL:N	2.49	0.45
1:CA:234:C:H2'	1:CA:235:C:C6	2.51	0.45
1:AA:1065:U:H4'	1:AA:1066:C:O5'	2.15	0.45
29:BF:68:LYS:HB2	29:BF:69:HIS:ND1	2.31	0.45
4:AD:14:ARG:H	4:AD:39:PRO:HA	1.80	0.45
25:DA:2419:U:H2'	25:DA:2420:C:C6	2.52	0.45
25:DA:506:G:O3'	25:DA:507:A:H8	1.98	0.45
27:DD:264:LYS:O	27:DD:267:SER:HB2	2.16	0.45
19:CS:12:ASP:HB3	19:CS:13:ASP:H	1.48	0.45
25:BA:181:A:H1'	58:BA:4020:HOH:O	2.16	0.45
3:CC:137:ALA:HA	3:CC:140:ARG:HE	1.81	0.45
25:DA:600:G:N2	25:DA:605:C:O3'	2.49	0.45
29:DF:59:TYR:CD1	29:DF:78:ILE:HD12	2.50	0.45
25:BA:1863:G:H2'	25:BA:1864:U:O4'	2.15	0.45
15:CO:17:ARG:HG3	15:CO:17:ARG:HH11	1.82	0.45
25:DA:1115:G:OP2	25:DA:1115:G:H8	1.99	0.45
51:B5:40:LYS:HE2	51:B5:40:LYS:HB2	1.43	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:883:G:C6	25:BA:884:C:C4	3.04	0.45
1:CA:923:A:H2'	1:CA:924:C:H6	1.81	0.45
1:CA:1176:A:H2'	1:CA:1177:G:O4'	2.16	0.45
1:AA:373:A:H2'	1:AA:374:A:H8	1.81	0.45
1:CA:1015:A:H2'	1:CA:1016:A:C8	2.51	0.45
52:B6:39:TYR:HE2	52:B6:41:PRO:HA	1.81	0.45
46:D0:27:GLU:HB2	46:D0:69:PHE:CD1	2.45	0.45
2:CB:178:ARG:HD2	2:CB:196:LEU:O	2.17	0.45
44:DY:39:VAL:HG12	44:DY:42:VAL:HG21	1.98	0.45
25:BA:176:G:O2'	25:BA:177:G:H5'	2.16	0.45
1:AA:599:C:H4'	8:AH:130:GLY:CA	2.46	0.45
23:CV:19:G:C4	23:CV:57:A:C2	3.05	0.45
31:DH:95:ARG:CB	31:DH:128:PRO:HB3	2.45	0.45
28:DE:12:THR:HG22	28:DE:13:ARG:N	2.31	0.45
37:BR:77:ARG:O	37:BR:81:ASP:HB2	2.17	0.45
1:AA:363:A:O2'	1:AA:364:A:H5'	2.16	0.45
12:AL:27:LEU:CB	12:AL:30:ALA:HB3	2.47	0.45
25:BA:1932:A:H2'	25:BA:1933:G:O4'	2.17	0.45
13:CM:72:ALA:O	13:CM:75:ALA:HB3	2.16	0.45
20:AT:31:SER:HA	20:AT:34:LYS:HE3	1.97	0.45
2:CB:107:THR:HA	2:CB:110:GLN:HG3	1.99	0.45
25:DA:1017:G:O6	58:DA:4540:HOH:O	2.20	0.45
1:AA:297:G:H5''	58:AA:2148:HOH:O	2.15	0.45
32:BI:9:LEU:HD21	32:BI:35:LEU:HD13	1.99	0.45
26:BB:35:U:H5''	58:BB:335:HOH:O	2.15	0.45
1:CA:1091:U:O2	1:CA:1093:A:C8	2.69	0.45
1:CA:910:C:H2'	1:CA:911:U:O4'	2.16	0.45
4:AD:60:GLU:OE2	4:AD:198:VAL:HA	2.16	0.45
20:CT:33:ILE:O	20:CT:37:SER:OG	2.27	0.45
33:BN:28:THR:HG22	33:BN:29:LYS:N	2.31	0.45
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.51	0.45
35:BP:148:LEU:H	35:BP:148:LEU:HD23	1.80	0.45
17:CQ:83:ASP:OD1	17:CQ:83:ASP:N	2.48	0.45
1:AA:1261:A:H5''	1:AA:1262:C:OP2	2.17	0.45
6:CF:29:ALA:O	6:CF:32:ASN:HB2	2.15	0.45
9:AI:114:TYR:H	9:AI:114:TYR:HD2	1.65	0.45
1:CA:376:G:H2'	1:CA:377:G:H8	1.81	0.45
17:AQ:44:ALA:N	17:AQ:69:LYS:NZ	2.62	0.45
25:DA:1952:A:C6	25:DA:1953:A:N1	2.85	0.45
15:AO:62:GLN:O	15:AO:65:ARG:HB2	2.16	0.45
1:CA:1122:U:H2'	1:CA:1123:A:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1468:C:H2'	25:DA:1469:A:C8	2.52	0.45
1:CA:129(A):G:O6	1:CA:189(E):U:O4'	2.34	0.45
25:BA:1142(A):A:C4	25:BA:1144:G:C8	3.04	0.45
1:AA:185:A:H2'	1:AA:186:C:C6	2.52	0.45
1:CA:770:C:O2'	1:CA:899:C:N3	2.39	0.45
1:CA:1206:G:H4'	3:CC:192:THR:O	2.15	0.45
3:CC:18:TRP:CD1	14:CN:53:LEU:O	2.70	0.45
1:CA:460:G:O6	1:CA:470:C:H5''	2.15	0.45
25:DA:2571:C:H5''	25:DA:2572:A:H5''	1.98	0.45
34:DO:43:VAL:HG23	34:DO:56:ASP:O	2.16	0.45
1:CA:624:C:O3'	16:CP:10:GLY:HA2	2.17	0.45
25:DA:990:A:N6	25:DA:1186:G:H1'	2.31	0.45
1:AA:1223:C:P	19:AS:78:ARG:HH21	2.39	0.45
25:DA:141:A:H8	25:DA:1408:C:HO2'	1.53	0.45
25:DA:1375:C:H2'	25:DA:1376:C:H6	1.81	0.45
7:CG:26:PHE:CG	7:CG:62:PHE:HE1	2.34	0.45
31:BH:7:LEU:HA	31:BH:8:PRO:HD2	1.66	0.45
1:AA:303:A:O2'	1:AA:555:C:O2'	2.24	0.45
10:CJ:8:LEU:O	10:CJ:16:LEU:HD11	2.17	0.45
28:BE:170:LEU:HB3	28:BE:184:VAL:HG21	1.97	0.45
1:CA:373:A:C2	1:CA:374:A:C8	3.04	0.45
45:DZ:22:GLY:O	45:DZ:23:LYS:HD3	2.16	0.45
25:BA:2092:U:H4'	25:BA:2093:G:O5'	2.17	0.45
2:AB:9:GLU:C	2:AB:11:LEU:H	2.19	0.45
1:CA:1318:A:H4'	19:CS:10:PHE:CE2	2.51	0.45
12:AL:24:VAL:O	12:AL:24:VAL:HG12	2.16	0.45
30:DG:120:LEU:HB2	30:DG:180:PHE:HD2	1.82	0.45
12:AL:5:PRO:HG2	12:AL:10:LEU:HD21	1.99	0.45
12:AL:7:ILE:HA	12:AL:10:LEU:HD23	1.98	0.45
1:AA:913:A:H4'	1:AA:914:A:O5'	2.16	0.45
16:AP:74:LEU:HB3	16:AP:79:VAL:HG11	1.97	0.45
4:CD:89:THR:O	4:CD:93:PHE:N	2.39	0.45
25:BA:2494:G:O2'	25:BA:2495:G:H5'	2.16	0.45
25:BA:2496:C:OP1	36:BQ:82:ARG:HB3	2.17	0.45
17:CQ:45:HIS:HB3	17:CQ:72:ARG:HB3	1.98	0.45
37:BR:118:GLU:H	37:BR:118:GLU:CD	2.19	0.45
27:BD:2:ALA:N	27:BD:20:ASP:OD2	2.49	0.45
25:DA:280:C:N3	25:DA:361:G:N2	2.64	0.45
24:AX:3:A:H8	24:AX:3:A:O5'	1.99	0.45
1:AA:1516:G:H2'	1:AA:1518:A:OP2	2.16	0.45
25:BA:1790:C:H4'	27:BD:209:ALA:HB2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DH:92:ILE:O	31:DH:94:TYR:HB2	2.16	0.45
25:DA:563:G:H5'	25:DA:572:A:H4'	1.98	0.45
25:DA:571:A:H1'	25:DA:573:G:H5''	1.98	0.45
25:DA:573:G:O2'	25:DA:574:C:H3'	2.15	0.45
25:BA:857:C:H4'	46:B0:23:VAL:HG21	1.99	0.45
1:AA:392:G:H2'	1:AA:393:A:C8	2.52	0.45
25:BA:1048:A:O2'	25:BA:1049:C:OP2	2.29	0.45
1:AA:1316:G:N2	1:AA:1319:A:H5''	2.31	0.45
2:CB:37:ASN:O	2:CB:39:ILE:HG13	2.16	0.45
1:AA:832:C:H2'	1:AA:832:C:H6	1.59	0.45
1:CA:503:C:H2'	1:CA:504:C:H6	1.82	0.45
52:B6:47:THR:HB	52:B6:49:HIS:HE1	1.82	0.45
28:BE:45:THR:O	28:BE:82:ARG:HG2	2.16	0.45
25:DA:874:G:H2'	25:DA:875:G:O4'	2.17	0.45
1:AA:818:G:O2'	1:AA:820:U:H6	2.00	0.45
1:AA:304:U:H2'	1:AA:305:G:C8	2.51	0.45
25:DA:2023:G:H5'	25:DA:2617:C:H4'	1.98	0.45
1:AA:1053:G:C4'	1:AA:1054:C:H5'	2.46	0.45
1:AA:251:G:N2	1:AA:253:U:C5	2.85	0.45
1:CA:622:A:C8	1:CA:623:C:C5	3.04	0.45
47:D1:66:HIS:C	47:D1:68:PRO:HD2	2.37	0.45
25:BA:1511:C:N4	58:BA:5287:HOH:O	2.49	0.45
34:DO:107:ARG:HB2	34:DO:115:VAL:HG11	1.98	0.45
26:BB:51:G:N7	38:BS:62:LYS:NZ	2.42	0.45
25:DA:507:A:H5''	25:DA:508:G:H3'	1.98	0.45
45:DZ:14:LYS:HA	45:DZ:15:PRO:HD3	1.75	0.45
1:AA:560:U:H4'	1:AA:561:U:O5'	2.16	0.45
25:BA:55:G:N3	25:BA:127:A:H2	2.14	0.45
25:BA:2877:G:O2'	25:BA:2878:U:H5'	2.17	0.45
36:DQ:69:PHE:CD1	36:DQ:70:PRO:HD2	2.52	0.45
33:BN:30:ILE:O	33:BN:34:LEU:HB2	2.17	0.45
35:BP:19:VAL:CG2	35:BP:31:ALA:HB1	2.46	0.45
36:BQ:16:ARG:HE	36:BQ:16:ARG:HB3	1.62	0.45
27:BD:94:LEU:HA	27:BD:94:LEU:HD23	1.63	0.45
8:AH:68:ARG:HH11	8:AH:68:ARG:HB3	1.82	0.45
48:B2:21:LEU:HD23	48:B2:21:LEU:HA	1.70	0.45
55:B9:2:LYS:HD2	55:B9:2:LYS:HA	1.50	0.45
25:DA:1942:C:OP2	25:DA:1943:U:O2'	2.28	0.45
25:DA:953:A:C4	25:DA:954:G:C8	3.04	0.45
47:D1:41:ARG:HD3	47:D1:43:TYR:CE2	2.52	0.45
5:CE:12:LEU:O	5:CE:30:ALA:HA	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2376:A:N3	38:BS:106:ARG:NH2	2.62	0.45
14:AN:3:ARG:O	14:AN:6:LEU:HB3	2.16	0.45
10:CJ:42:THR:OG1	10:CJ:68:HIS:HB3	2.16	0.45
1:CA:872:A:C5	1:CA:874:G:C8	3.05	0.45
1:CA:563:A:N7	1:CA:567:G:H1'	2.32	0.45
25:BA:1049:C:N4	25:BA:1111:A:C2	2.83	0.45
1:AA:343:U:H3'	1:AA:343:U:OP2	2.15	0.45
1:CA:677:U:H1'	11:CK:119:CYS:SG	2.56	0.45
26:DB:28:C:H2'	26:DB:29:A:O4'	2.17	0.45
13:AM:59:TYR:O	13:AM:63:THR:N	2.49	0.45
25:DA:2557:G:H2'	25:DA:2558:C:C6	2.51	0.45
2:CB:167:PRO:O	2:CB:171:ALA:N	2.49	0.45
25:BA:806:C:C2	25:BA:807:U:C5	3.04	0.45
25:DA:997:G:H5''	40:DU:92:ARG:HH21	1.81	0.45
25:DA:2262:U:H2'	25:DA:2263:C:C6	2.52	0.45
41:BV:76:LYS:HG3	41:BV:81:TYR:CD1	2.52	0.45
1:CA:939:G:H5''	7:CG:102:ARG:NH1	2.31	0.45
1:CA:1446:U:H4'	1:CA:1447:A:C6	2.51	0.45
45:BZ:150:LEU:HB3	45:BZ:171:ILE:HD11	1.99	0.45
25:DA:184:C:H2'	25:DA:185:U:H6	1.81	0.45
25:DA:2331:G:H4'	46:D0:43:THR:H	1.81	0.45
25:DA:970:C:H2'	25:DA:971:C:H6	1.81	0.45
37:BR:67:LEU:O	37:BR:71:GLN:N	2.49	0.45
25:BA:1322:A:H2'	25:BA:1323:U:C6	2.51	0.45
25:DA:95:G:O2'	48:D2:46:GLN:HA	2.16	0.45
25:DA:2462:U:H1'	25:DA:2491:U:O4	2.17	0.45
17:CQ:45:HIS:NE2	17:CQ:47:PRO:HG3	2.32	0.45
25:BA:2101:G:H2'	25:BA:2102:U:C6	2.52	0.45
43:BX:84:ALA:O	43:BX:87:GLN:HG3	2.17	0.45
1:AA:1106:G:C5	1:AA:1107:C:C5	3.05	0.45
25:BA:658:C:H2'	25:BA:659:C:C6	2.51	0.45
45:BZ:24:LEU:HD11	45:BZ:85:HIS:HA	1.99	0.45
8:CH:66:GLY:O	8:CH:76:PRO:HB3	2.17	0.45
42:DW:12:ILE:HD13	42:DW:17:VAL:HG22	1.97	0.45
36:DQ:132:VAL:HG11	45:DZ:81:ARG:NH2	2.31	0.45
31:DH:71:LEU:O	31:DH:74:ASN:N	2.49	0.45
25:BA:790:C:H6	25:BA:790:C:H2'	1.54	0.45
5:AE:71:LEU:HA	5:AE:71:LEU:HD23	1.58	0.45
3:CC:139:GLN:OE1	3:CC:139:GLN:HA	2.17	0.45
29:DF:24:LEU:HD21	29:DF:199:TRP:HH2	1.81	0.45
1:CA:1281:U:C3'	1:CA:1281:U:C6	3.00	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1157:A:H62	1:CA:1177:G:H22	1.65	0.45
1:CA:1227:A:N3	19:CS:83:HIS:HB3	2.32	0.45
18:CR:53:ARG:HG3	18:CR:63:GLN:NE2	2.22	0.45
18:CR:53:ARG:NE	18:CR:58:LEU:O	2.50	0.45
47:D1:41:ARG:HD3	47:D1:43:TYR:HE2	1.82	0.45
25:DA:1359:A:H2	25:DA:1372:U:O4	2.00	0.45
2:AB:80:ILE:HD11	2:AB:211:ILE:HG22	1.98	0.45
1:CA:1366:C:H2'	1:CA:1367:C:H6	1.82	0.45
25:BA:1048:A:O2'	25:BA:1049:C:P	2.75	0.45
25:DA:103:A:OP2	25:DA:103:A:H8	2.00	0.45
25:BA:2328:A:H2'	25:BA:2329:G:C8	2.52	0.45
25:DA:579:G:C8	25:DA:2017:U:C4	3.05	0.45
1:AA:754:C:P	15:AO:72:ARG:HH12	2.40	0.45
7:CG:111:ARG:NE	7:CG:123:GLU:HB2	2.31	0.45
45:BZ:111:VAL:HG12	45:BZ:112:ARG:H	1.81	0.45
29:DF:9:ILE:HA	29:DF:10:PRO:HD2	1.65	0.45
26:DB:108:U:H2'	26:DB:109:C:H5''	1.98	0.45
18:CR:74:ARG:HA	18:CR:79:LEU:O	2.17	0.45
1:CA:947:G:H2'	1:CA:948:C:H6	1.82	0.45
23:AV:47:U:H3'	23:AV:48:C:C5'	2.47	0.45
25:BA:2224:G:H4'	25:BA:2226:C:C2	2.52	0.45
25:DA:1198:U:H2'	25:DA:1199:U:C6	2.50	0.45
25:DA:1936:A:C8	25:DA:1940:U:O2	2.70	0.45
49:D3:4:LEU:O	49:D3:36:VAL:HA	2.17	0.45
29:DF:13:SER:O	29:DF:16:GLY:N	2.50	0.45
27:DD:145:VAL:HG13	27:DD:191:ALA:HB2	1.99	0.45
28:DE:61:ARG:HB3	28:DE:62:PRO:HD3	1.98	0.45
25:BA:181:A:H2'	25:BA:182:A:C8	2.51	0.45
41:BV:24:LYS:HA	41:BV:92:THR:OG1	2.17	0.45
8:AH:111:ILE:O	8:AH:112:LEU:HB3	2.16	0.45
1:CA:250:A:H5'	1:CA:252:U:H1'	1.99	0.45
25:BA:2803:C:H2'	25:BA:2804:C:O4'	2.17	0.45
27:DD:2:ALA:HB3	27:DD:20:ASP:HB3	1.99	0.45
2:CB:16:HIS:CD2	2:CB:209:ARG:HG3	2.52	0.45
32:BI:7:GLU:HB3	32:BI:8:PRO:HD2	1.98	0.45
1:CA:120:A:C6	1:CA:122:G:C2	3.05	0.45
25:BA:254:G:N7	54:B8:5:LYS:HE2	2.32	0.45
3:CC:8:ILE:O	3:CC:12:LEU:HG	2.16	0.45
25:BA:398:G:H2'	25:BA:399:G:O4'	2.16	0.45
25:DA:1274:A:N3	25:DA:1297:C:H1'	2.32	0.45
45:DZ:31:ARG:H	45:DZ:31:ARG:HG3	1.24	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CG:16:LEU:HD12	9:CI:41:VAL:HG12	1.98	0.45
1:AA:608:A:H2'	1:AA:609:A:O4'	2.17	0.45
25:BA:1425:G:O2'	25:BA:1426:G:H5'	2.17	0.45
25:DA:1309:G:HO2'	25:DA:1611:C:HO2'	1.59	0.45
25:BA:2522:U:O2'	25:BA:2647:U:OP1	2.27	0.45
29:DF:19:GLU:O	29:DF:20:LEU:HD23	2.16	0.45
37:DR:56:LYS:NZ	37:DR:90:ARG:O	2.50	0.45
1:AA:1277:C:O2'	1:AA:1279:A:H1'	2.17	0.45
1:AA:147:G:C2	1:AA:176:C:C2	3.05	0.45
25:BA:613:G:N2	25:BA:615:G:C4	2.85	0.45
25:BA:151:C:O2'	25:BA:152:G:H5'	2.17	0.45
36:BQ:62:GLY:O	45:BZ:178:GLU:HG2	2.16	0.45
2:CB:21:ARG:CB	2:CB:39:ILE:HA	2.44	0.45
2:CB:20:GLU:OE2	2:CB:23:ARG:NH2	2.45	0.45
25:DA:139(A):G:O2'	25:DA:140:G:H5'	2.17	0.45
41:DV:87:HIS:CE1	41:DV:89:GLN:HG2	2.52	0.45
25:DA:2019:A:C2'	25:DA:2020:A:O5'	2.65	0.45
34:DO:68:GLU:H	34:DO:68:GLU:CD	2.19	0.45
32:DI:92:VAL:CG2	32:DI:120:ILE:HB	2.46	0.45
1:CA:939:G:H5''	7:CG:102:ARG:NH2	2.32	0.45
26:DB:19:G:H2'	26:DB:20:C:O4'	2.17	0.45
25:DA:1221(A):C:C2	25:DA:1229:G:C2	3.05	0.45
42:DW:80:PRO:O	42:DW:100:THR:HB	2.17	0.45
3:AC:114:PRO:HG3	3:AC:185:GLY:HA3	1.97	0.45
38:DS:66:ALA:O	38:DS:69:VAL:N	2.50	0.45
25:DA:2393:A:C2'	25:DA:2394:C:H5'	2.47	0.45
37:DR:65:LEU:HA	37:DR:65:LEU:HD12	1.72	0.45
13:CM:65:LYS:O	13:CM:65:LYS:HE3	2.17	0.45
29:BF:194:MET:HB3	29:BF:198:ALA:HB3	1.98	0.45
1:CA:499:A:H4'	1:CA:500:G:OP1	2.16	0.45
25:DA:1669:A:H5''	25:DA:2550:G:OP1	2.17	0.45
1:CA:1285:A:H4'	1:CA:1286:A:O5'	2.17	0.45
25:BA:1651:G:H5'	37:BR:39:PRO:HG2	1.98	0.45
25:BA:320:A:OP1	29:BF:135:LYS:NZ	2.50	0.45
1:AA:1067:A:N3	1:AA:1068:G:H1'	2.32	0.45
25:BA:2461:C:H2'	25:BA:2462:U:C6	2.51	0.45
1:CA:1421:G:H1	1:CA:1479:C:H42	1.64	0.45
48:D2:22:GLU:HG3	48:D2:64:LEU:HD11	1.98	0.45
25:DA:792:G:N3	25:DA:2072:G:O2'	2.41	0.45
22:AY:127:SER:OG	58:AY:301:HOH:O	2.21	0.45
27:DD:76:PRO:HA	27:DD:118:VAL:HB	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BO:86:ILE:HG22	34:BO:94:ARG:HG3	1.97	0.45
33:DN:11:PRO:O	33:DN:13:TRP:HD1	2.00	0.45
1:AA:779:C:H2'	1:AA:780:A:O4'	2.17	0.45
25:BA:2243:U:H2'	25:BA:2244:U:C6	2.52	0.45
25:DA:1298:C:H5''	25:DA:1299:G:OP2	2.17	0.45
6:AF:82:ARG:HD2	6:AF:82:ARG:HA	1.62	0.45
2:AB:221:LEU:HD22	2:AB:221:LEU:HA	1.79	0.45
27:DD:35:LYS:HG3	27:DD:64:ILE:HD11	1.98	0.45
1:CA:1415:G:N3	1:CA:1486:G:C2	2.85	0.45
26:DB:77:U:H4'	45:DZ:84:GLU:CD	2.37	0.45
1:AA:55:A:C5	1:AA:56:U:C5	3.05	0.45
40:BU:24:TYR:CD1	40:BU:38:THR:HG21	2.51	0.45
1:AA:542:G:H5'	4:AD:41:GLY:HA3	1.99	0.45
2:AB:222:ILE:HG22	2:AB:226:ARG:HD2	1.99	0.45
1:AA:275:G:O2'	17:AQ:15:MET:HG2	2.16	0.45
9:CI:5:TYR:OH	9:CI:16:ARG:HG2	2.16	0.45
25:BA:2043:C:H1'	25:BA:2779:U:O4	2.17	0.45
1:AA:342:C:N3	1:AA:343:U:C5	2.85	0.45
2:CB:87:ARG:CZ	2:CB:233:SER:HB2	2.47	0.45
3:AC:12:LEU:HD23	3:AC:12:LEU:HA	1.76	0.45
25:BA:1784:A:H4'	25:BA:1785:A:C5'	2.47	0.45
25:DA:362:U:O2'	25:DA:363:G:H5''	2.17	0.45
1:AA:1136:U:H5''	1:AA:1137:C:C2	2.52	0.45
1:CA:731:G:OP1	1:CA:766:A:H1'	2.17	0.45
1:AA:599:C:H4'	8:AH:130:GLY:HA3	1.99	0.45
14:CN:29:ARG:NH2	14:CN:42:ILE:HD11	2.32	0.45
1:AA:1355:G:H2'	1:AA:1356:G:C8	2.51	0.45
40:BU:50:ARG:O	40:BU:53:ARG:HB3	2.17	0.45
15:AO:53:HIS:O	15:AO:56:LEU:HB3	2.16	0.45
17:AQ:90:ILE:O	17:AQ:94:ASN:N	2.45	0.45
1:AA:1241:G:H2'	1:AA:1242:C:C6	2.51	0.45
28:DE:12:THR:HG21	39:DT:11:GLU:HG2	1.99	0.45
1:AA:428:G:H4'	1:AA:429:U:OP1	2.16	0.45
25:DA:1354:A:C8	25:DA:1355:G:C8	3.04	0.45
7:CG:82:GLY:HA2	24:CX:1:A:N7	2.32	0.45
1:CA:1317:C:H42	14:CN:19:ARG:HH21	1.63	0.45
26:DB:6:C:HO2'	38:DS:29:PHE:HE1	1.64	0.45
4:AD:113:SER:OG	4:AD:116:GLN:N	2.37	0.45
32:DI:124:GLY:H	32:DI:144:VAL:HG13	1.82	0.45
25:BA:1508:A:H4'	25:BA:1509(A):A:C5	2.51	0.45
51:D5:16:ARG:HG3	51:D5:17:ASP:H	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:245:C:O2	1:CA:283:C:N3	2.50	0.45
1:CA:189:G:C2	1:CA:189(L):G:C2	3.05	0.45
5:CE:79:GLU:HG3	5:CE:93:PRO:HD2	1.98	0.45
6:AF:11:ASN:HA	6:AF:12:PRO:HD2	1.73	0.45
43:DX:25:LYS:HA	43:DX:81:VAL:O	2.16	0.45
1:CA:936:C:H2'	1:CA:937:A:O4'	2.17	0.45
14:CN:13:THR:N	14:CN:14:PRO:HD2	2.32	0.45
36:BQ:18:LYS:HB2	36:BQ:18:LYS:HE3	1.75	0.45
4:CD:146:ILE:N	4:CD:146:ILE:HD12	2.32	0.45
1:CA:1487:G:O5'	1:CA:1487:G:H8	2.00	0.45
1:AA:1263:C:H5''	1:AA:1264:C:OP2	2.17	0.45
1:CA:923:A:H2'	1:CA:924:C:C6	2.52	0.45
1:CA:1354:C:N3	1:CA:1368:G:O6	2.49	0.45
9:AI:117:HIS:C	9:AI:119:ALA:H	2.20	0.45
1:AA:1346:A:C8	7:AG:10:ARG:NH2	2.85	0.45
1:AA:93:G:O2'	1:AA:96:U:P	2.75	0.45
47:B1:35:THR:H	47:B1:35:THR:HG23	1.51	0.45
16:AP:49:LEU:HD12	16:AP:50:LYS:O	2.17	0.45
4:AD:134:ASP:O	4:AD:136:PRO:HD3	2.17	0.45
25:BA:764:A:O4'	27:BD:213:ARG:HG3	2.17	0.45
5:CE:98:THR:HG22	5:CE:99:GLY:N	2.32	0.45
25:BA:805:G:OP1	58:BA:5183:HOH:O	2.21	0.45
1:CA:730:G:C5	1:CA:731:G:H1'	2.52	0.45
15:CO:24:SER:O	15:CO:27:VAL:N	2.50	0.45
12:AL:70:ILE:HG12	12:AL:100:ILE:HD12	1.99	0.45
25:BA:1803:A:H4'	27:BD:259:THR:HG21	1.99	0.45
20:AT:90:GLN:O	20:AT:93:GLU:HB3	2.17	0.45
19:CS:62:ILE:HD12	19:CS:62:ILE:H	1.82	0.45
1:CA:987:G:H1	1:CA:1218:C:H42	1.65	0.45
29:DF:132:VAL:HG23	29:DF:132:VAL:O	2.17	0.45
1:CA:1305:G:N1	1:CA:1331:G:O2'	2.46	0.45
2:CB:18:GLY:HA2	2:CB:42:ILE:HG13	1.99	0.45
25:DA:363(E):U:HO2'	25:DA:363(F):A:P	2.37	0.45
2:AB:197:VAL:HG12	2:AB:198:ASP:H	1.82	0.45
2:AB:28:PHE:HD2	2:AB:194:PRO:HG3	1.81	0.45
25:DA:1288:U:C2	25:DA:1327:C:O2	2.70	0.45
1:CA:429:U:H1'	1:CA:430:A:H5''	1.99	0.45
25:BA:637:A:H4'	25:BA:638:G:O5'	2.17	0.45
42:DW:75:TYR:HE2	42:DW:104:THR:HG1	1.63	0.45
31:BH:37:VAL:HG22	31:BH:68:THR:HG23	1.98	0.45
25:DA:527:C:H5	58:DA:4190:HOH:O	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BR:100:LEU:HD11	51:B5:58:LEU:HD11	1.99	0.45
25:BA:2771:C:H2'	25:BA:2772:C:C6	2.52	0.45
26:BB:41:U:C6	30:BG:69:ALA:HB1	2.52	0.45
27:DD:96:HIS:NE2	27:DD:102:LYS:HE2	2.32	0.45
42:DW:86:LEU:HD12	42:DW:87:PRO:HD2	1.99	0.45
25:DA:720:C:H2'	25:DA:721:C:H6	1.82	0.45
5:AE:102:ALA:HB1	5:AE:106:PRO:HG2	1.99	0.45
25:DA:36:G:N3	25:DA:450:G:O2'	2.49	0.45
25:BA:300:A:OP2	44:BY:86:ARG:NH2	2.50	0.45
24:AX:5:U:C2'	24:AX:6:G:H5'	2.47	0.45
50:D4:8:LYS:HE3	50:D4:8:LYS:HB3	1.66	0.45
31:BH:121:ILE:HA	31:BH:121:ILE:HD13	1.78	0.45
8:CH:127:LEU:HA	8:CH:127:LEU:HD13	1.69	0.45
25:DA:389:G:H8	25:DA:389:G:O5'	1.99	0.45
51:B5:42:PRO:HB2	51:B5:43:HIS:ND1	2.31	0.45
40:DU:5:LYS:HG2	40:DU:7:GLY:H	1.81	0.45
1:AA:30:U:H4'	1:AA:31:G:OP2	2.15	0.45
26:DB:46:A:H2'	26:DB:47:C:C6	2.52	0.44
1:AA:974:A:C8	1:AA:974:A:OP1	2.69	0.44
16:AP:55:ARG:HA	16:AP:55:ARG:HD2	1.75	0.44
1:AA:922:G:C2	1:AA:923:A:C4	3.05	0.44
1:AA:370:C:H2'	1:AA:371:G:C8	2.52	0.44
10:CJ:69:ASN:O	10:CJ:70:ARG:HG2	2.18	0.44
1:AA:831:U:OP1	2:AB:22:LYS:HD3	2.18	0.44
25:DA:1020:A:H4'	25:DA:1021:A:O5'	2.17	0.44
3:CC:18:TRP:N	3:CC:18:TRP:CE3	2.82	0.44
25:DA:2555:U:C5	25:DA:2556:C:C2	3.05	0.44
29:DF:34:TRP:CE2	35:DP:8:PRO:HG3	2.51	0.44
25:BA:543:C:H2'	25:BA:545:G:O4'	2.17	0.44
1:AA:377:G:H1	1:AA:386:C:H42	1.64	0.44
1:CA:1348:U:H4'	9:CI:120:ARG:HG3	1.99	0.44
2:AB:18:GLY:HA3	2:AB:41:ILE:HA	1.99	0.44
13:AM:69:GLU:O	13:AM:71:ARG:N	2.49	0.44
25:DA:247:G:H4'	25:DA:386:G:C6	2.53	0.44
1:CA:819:A:H4'	1:CA:820:U:OP2	2.17	0.44
44:DY:76:CYS:HA	44:DY:77:PRO:HD3	1.77	0.44
1:AA:615:C:H2'	1:AA:616:G:O4'	2.17	0.44
1:AA:621:A:H2'	1:AA:622:A:C8	2.51	0.44
39:BT:16:ARG:HE	39:BT:19:LEU:HD21	1.80	0.44
25:BA:2205:C:O2	25:BA:2220:G:C2	2.69	0.44
1:CA:675:A:H2'	1:CA:676:A:H8	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BN:47:ALA:HB2	33:BN:112:LEU:CD1	2.47	0.44
25:BA:2536:G:C6	25:BA:2537:U:C4	3.05	0.44
6:AF:89:MET:HB3	6:AF:89:MET:HE2	1.87	0.44
1:CA:678:U:H2'	1:CA:679:C:H6	1.82	0.44
38:DS:7:TYR:CZ	38:DS:91:PRO:HG3	2.52	0.44
2:AB:208:ILE:O	2:AB:212:GLN:HB2	2.16	0.44
25:BA:1354:A:H2'	25:BA:1355:G:O4'	2.17	0.44
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.52	0.44
25:BA:738:G:C6	25:BA:739:G:C2	3.05	0.44
1:AA:202:U:H3'	1:AA:203:U:H5	1.81	0.44
32:BI:65:ALA:HB1	32:BI:136:VAL:HG11	1.99	0.44
25:DA:2850:A:OP2	25:DA:2866:U:H5	2.00	0.44
28:BE:181:LEU:HD11	39:BT:6:LEU:HD12	1.99	0.44
25:BA:971:C:H2'	25:BA:972:G:O4'	2.17	0.44
38:DS:8:GLU:H	38:DS:8:GLU:HG3	1.47	0.44
35:BP:27:HIS:N	35:BP:27:HIS:ND1	2.65	0.44
47:D1:46:LEU:HA	47:D1:46:LEU:HD22	1.80	0.44
36:DQ:19:GLY:O	36:DQ:98:LYS:HB3	2.17	0.44
45:BZ:179:ASP:O	45:BZ:182:LYS:HB2	2.17	0.44
25:DA:308:G:O2'	58:DA:3739:HOH:O	2.21	0.44
1:AA:1358:U:H5''	14:AN:33:VAL:O	2.16	0.44
1:CA:923:A:OP1	5:CE:21:ALA:HB2	2.17	0.44
25:DA:628:G:H2'	25:DA:629:G:C8	2.53	0.44
50:B4:16:CYS:SG	50:B4:18:CYS:CB	3.06	0.44
25:DA:300:A:OP2	44:DY:86:ARG:NH2	2.50	0.44
10:CJ:51:ARG:HG3	10:CJ:60:ARG:HA	1.99	0.44
31:DH:3:ARG:NH1	31:DH:3:ARG:HG3	2.30	0.44
25:DA:192:C:C2'	25:DA:193:U:H5'	2.47	0.44
11:AK:120:ARG:HH11	11:AK:120:ARG:CG	2.27	0.44
25:BA:2789:C:O2'	25:BA:2790:A:O2'	2.06	0.44
1:CA:129(A):G:N1	1:CA:189(D):C:O2	2.50	0.44
33:DN:63:THR:HG22	33:DN:66:LYS:NZ	2.30	0.44
1:CA:243:A:C2	1:CA:246:A:C8	3.05	0.44
53:B7:47:ARG:CB	53:B7:47:ARG:HH11	2.29	0.44
44:DY:84:ARG:O	44:DY:100:ALA:HB2	2.17	0.44
3:AC:23:TYR:CD2	3:AC:24:ALA:N	2.85	0.44
1:AA:1172:C:H2'	1:AA:1173:G:H8	1.82	0.44
1:CA:1328:C:OP2	21:CU:7:ARG:NH1	2.50	0.44
1:CA:590:C:H2'	1:CA:591:U:C6	2.52	0.44
13:AM:66:LEU:O	13:AM:69:GLU:O	2.35	0.44
54:D8:4:MET:HE3	54:D8:63:PRO:HG3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:436:C:O2'	1:CA:437:U:P	2.76	0.44
25:DA:857:C:O2'	25:DA:858:U:H5'	2.17	0.44
25:BA:1606:G:H5''	25:BA:1607:C:OP1	2.17	0.44
5:CE:151:LEU:CD1	8:CH:77:GLU:HG2	2.47	0.44
1:CA:1382:C:H2'	1:CA:1383:C:C6	2.52	0.44
1:CA:991:U:C5	1:CA:1212:U:H1'	2.52	0.44
36:DQ:108:GLY:HA3	45:DZ:116:VAL:CG1	2.48	0.44
30:BG:33:ARG:HB2	30:BG:162:THR:CG2	2.47	0.44
27:DD:36:PRO:HA	27:DD:61:LEU:HD12	1.99	0.44
3:AC:179:ARG:H	3:AC:179:ARG:HG3	1.45	0.44
2:AB:28:PHE:CD2	2:AB:194:PRO:HG3	2.53	0.44
25:BA:2345:G:N3	25:BA:2381:C:H2'	2.32	0.44
37:DR:111:LEU:HD12	37:DR:111:LEU:HA	1.73	0.44
44:DY:24:VAL:HG12	44:DY:25:GLY:N	2.32	0.44
25:BA:272(B):G:H2'	25:BA:272(C):G:H8	1.82	0.44
5:CE:84:PHE:HB2	5:CE:134:ALA:HB2	1.98	0.44
35:DP:2:LYS:O	35:DP:5:ASP:HB2	2.17	0.44
27:BD:184:LYS:HE3	27:BD:271:ILE:HD11	2.00	0.44
26:DB:35:U:H2'	26:DB:36:C:O4'	2.17	0.44
25:DA:921:G:H2'	25:DA:922:U:C6	2.53	0.44
29:DF:140:LEU:HD11	29:DF:170:LEU:HD11	1.98	0.44
37:BR:75:LEU:HA	37:BR:75:LEU:HD22	1.64	0.44
1:AA:1256:A:H5''	1:AA:1257:U:OP1	2.16	0.44
11:CK:67:ASP:O	11:CK:71:LYS:HG3	2.17	0.44
46:D0:37:LEU:HG	46:D0:60:PHE:HA	1.99	0.44
25:DA:888:C:H2'	25:DA:889:C:C4	2.52	0.44
1:CA:1370:G:O6	58:CA:1953:HOH:O	2.21	0.44
22:AY:20:ILE:HG13	22:AY:37:ILE:HB	1.99	0.44
25:DA:861:A:C2	25:DA:917:A:C4	3.05	0.44
25:DA:1721:G:N3	25:DA:1721:G:H5''	2.31	0.44
1:AA:391:G:C6	1:AA:392:G:C5	3.06	0.44
25:BA:1109:C:C5	25:BA:1110:G:N1	2.86	0.44
2:AB:44:LEU:H	2:AB:44:LEU:CD2	2.23	0.44
25:DA:2884:U:H1'	51:D5:53:ALA:CB	2.45	0.44
4:CD:36:ARG:HG2	4:CD:38:TYR:CZ	2.52	0.44
45:DZ:137:ILE:HG23	45:DZ:156:LYS:HE3	1.99	0.44
31:DH:151:ILE:HD12	31:DH:151:ILE:H	1.82	0.44
2:CB:132:LYS:O	2:CB:135:GLN:HG2	2.17	0.44
1:AA:1162:C:H42	1:AA:1174:G:H1	1.65	0.44
25:BA:602:G:O2'	25:BA:655:A:N6	2.49	0.44
25:BA:1803:A:O3'	27:BD:259:THR:HG21	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2648:C:H2'	25:DA:2649:U:C6	2.53	0.44
26:DB:42:C:O2	30:DG:92:VAL:HA	2.17	0.44
1:AA:40:C:H2'	1:AA:41:G:C8	2.51	0.44
7:AG:74:GLU:HB2	7:AG:141:VAL:HG13	1.99	0.44
1:CA:174:C:H2'	1:CA:175:C:H6	1.81	0.44
1:AA:615:C:H2'	1:AA:616:G:H8	1.83	0.44
1:AA:620:C:H2'	1:AA:621:A:O4'	2.17	0.44
12:AL:48:PRO:O	22:AY:117:ARG:NE	2.48	0.44
28:DE:98:PRO:HG3	28:DE:174:ASP:HA	2.00	0.44
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.82	0.44
1:CA:1008:C:O2	1:CA:1009:G:H1'	2.17	0.44
25:DA:236:C:H2'	25:DA:237:C:H6	1.82	0.44
1:AA:659:U:C2'	1:AA:660:G:H5'	2.47	0.44
29:BF:106:ARG:H	29:BF:106:ARG:HG2	1.30	0.44
25:DA:1142:U:OP2	58:DA:3755:HOH:O	2.21	0.44
23:AV:75:C:H5''	23:AV:76:A:OP2	2.16	0.44
25:BA:2311:A:C8	30:BG:80:PHE:CE2	3.05	0.44
29:BF:18:ARG:C	29:BF:19:GLU:HG2	2.37	0.44
34:DO:99:PHE:HB2	58:DO:303:HOH:O	2.17	0.44
25:DA:652(D):C:H2'	25:DA:652(E):G:O4'	2.18	0.44
25:DA:1774:C:O5'	25:DA:1774:C:H6	2.00	0.44
5:AE:147:ASP:N	5:AE:147:ASP:OD2	2.50	0.44
35:DP:50:ARG:HH11	54:D8:7:HIS:CD2	2.35	0.44
25:BA:1887:C:H2'	25:BA:1888:G:H5'	1.98	0.44
25:BA:2552:U:C2	25:BA:2554:U:H5'	2.51	0.44
27:DD:258:LYS:HE2	27:DD:273:ARG:NH2	2.32	0.44
22:AY:40:ARG:NH1	22:AY:40:ARG:HB3	2.32	0.44
36:BQ:21:THR:CG2	36:BQ:101:ARG:HB2	2.36	0.44
25:BA:2183:C:C2'	25:BA:2184:G:H5'	2.47	0.44
22:AY:35:THR:HG22	22:AY:36:ALA:H	1.82	0.44
2:AB:211:ILE:O	2:AB:215:LEU:HB2	2.17	0.44
25:DA:1448:G:H2'	25:DA:1449:A:C8	2.52	0.44
25:BA:1435:G:H2'	25:BA:1436:G:O4'	2.18	0.44
25:BA:652(Q):G:C2'	25:BA:652(R):C:H5'	2.46	0.44
31:DH:3:ARG:HA	31:DH:3:ARG:NE	2.32	0.44
44:BY:78:ALA:HB3	44:BY:102:CYS:SG	2.58	0.44
25:DA:1007:C:H2'	25:DA:1008:C:C5	2.52	0.44
43:BX:25:LYS:HE2	43:BX:82:GLN:HE22	1.83	0.44
25:DA:1331:A:HO2'	25:DA:1332:G:H8	1.65	0.44
1:CA:880:C:H2'	1:CA:881:G:H8	1.82	0.44
25:BA:1031:G:C4'	55:B9:6:SER:HB2	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:CM:15:VAL:HG22	13:CM:42:ALA:O	2.18	0.44
1:AA:1312:G:N2	1:AA:1326:C:C2	2.86	0.44
1:AA:220:G:C6	1:AA:221:C:C4	3.05	0.44
25:DA:1221(A):C:N4	25:DA:1228:G:H1	2.15	0.44
1:AA:961:U:OP2	1:AA:1223:C:H1'	2.17	0.44
19:CS:52:TYR:HB2	19:CS:57:HIS:CE1	2.52	0.44
3:AC:5:ILE:HG12	14:AN:58:LYS:NZ	2.31	0.44
28:BE:63:LEU:HD23	28:BE:63:LEU:HA	1.73	0.44
12:AL:86:ARG:HH21	12:AL:99:HIS:CD2	2.36	0.44
4:CD:173:TRP:HB2	4:CD:187:ARG:O	2.18	0.44
13:CM:66:LEU:HD22	13:CM:66:LEU:HA	1.74	0.44
33:BN:33:LEU:HD12	33:BN:33:LEU:HA	1.78	0.44
25:DA:734:A:O2'	25:DA:1635:G:H5'	2.17	0.44
38:DS:15:ARG:O	38:DS:19:LYS:HG2	2.18	0.44
25:DA:2854:G:H2'	25:DA:2855:C:C6	2.51	0.44
41:DV:24:LYS:HA	41:DV:92:THR:OG1	2.18	0.44
25:BA:2349:G:H3'	25:BA:2350:C:H5''	1.99	0.44
23:AV:19:G:C2	23:AV:57:A:N3	2.85	0.44
25:BA:244:A:C2	25:BA:255:A:C4	3.05	0.44
21:AU:25:LYS:HG2	21:AU:26:LYS:H	1.82	0.44
16:CP:68:ASP:C	16:CP:70:ALA:H	2.20	0.44
32:BI:33:ARG:HB3	32:BI:35:LEU:HG	1.99	0.44
40:DU:5:LYS:HG2	40:DU:6:THR:N	2.32	0.44
25:BA:2308:G:O6	25:BA:2311:A:N7	2.51	0.44
3:CC:92:ALA:HB2	3:CC:99:VAL:CB	2.48	0.44
1:CA:814:A:N7	1:CA:816:A:C4	2.85	0.44
25:BA:666:G:O2'	25:BA:667:U:H5'	2.18	0.44
36:DQ:24:GLY:O	36:DQ:102:VAL:HG23	2.17	0.44
17:CQ:81:ARG:NH2	17:CQ:84:LEU:HD11	2.32	0.44
1:AA:416:G:C5	1:AA:417:C:C4	3.05	0.44
30:DG:135:LEU:HG	30:DG:155:MET:HE3	2.00	0.44
47:B1:73:LEU:HA	47:B1:73:LEU:HD23	1.67	0.44
37:BR:116:LEU:HA	37:BR:116:LEU:HD23	1.77	0.44
1:CA:1043:C:H2'	1:CA:1044:A:O4'	2.18	0.44
2:AB:72:GLY:HA3	2:AB:165:VAL:HG23	1.99	0.44
25:BA:2556:C:H2'	25:BA:2557:G:O4'	2.17	0.44
45:BZ:29:TYR:HA	45:BZ:33:LEU:O	2.17	0.44
25:BA:12:U:O2	25:BA:12:U:H2'	2.17	0.44
25:BA:1653:G:H3'	37:BR:2:ARG:HD3	1.99	0.44
1:CA:376:G:H2'	1:CA:377:G:C8	2.52	0.44
1:AA:1278:U:H5'	1:AA:1279:A:C5'	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:866:A:C6	25:DA:914:C:C5	3.05	0.44
1:AA:1226:C:H4'	1:AA:1227:A:OP1	2.18	0.44
25:BA:1609:A:H5'	25:BA:1617:C:OP1	2.17	0.44
1:AA:832:C:O2'	1:AA:833:U:P	2.76	0.44
1:CA:425:G:N2	1:CA:426:G:H1'	2.33	0.44
52:B6:11:LEU:HA	52:B6:11:LEU:HD23	1.70	0.44
25:DA:1142(A):A:N7	25:DA:1144:G:C5	2.86	0.44
1:AA:928:G:C2	1:AA:1390:U:O2	2.70	0.44
25:BA:1358:G:N2	25:BA:1372:U:C5	2.85	0.44
1:CA:727:G:N2	1:CA:730:G:OP2	2.48	0.44
27:DD:242:ARG:H	27:DD:242:ARG:HD3	1.83	0.44
25:DA:1498:C:O4'	25:DA:1577:C:H4'	2.18	0.44
25:DA:1608:A:H1'	25:DA:1610:A:OP2	2.18	0.44
25:DA:2356:C:H2'	25:DA:2357:U:O4'	2.17	0.44
1:CA:1309:G:H5'	13:CM:78:ILE:HD11	1.99	0.44
25:DA:1028:A:H61	25:DA:1125:G:H2'	1.83	0.44
1:AA:981:U:O4	1:AA:1223:C:N4	2.50	0.44
1:AA:224:C:H2'	1:AA:225:C:C6	2.50	0.44
5:CE:88:LYS:HB3	5:CE:123:LEU:HB2	2.00	0.44
42:BW:19:LEU:HD12	42:BW:19:LEU:HA	1.71	0.44
1:CA:1516:G:H2'	1:CA:1518:A:OP2	2.18	0.44
17:CQ:67:LYS:O	17:CQ:68:ARG:HB3	2.17	0.44
47:D1:82:LEU:HA	47:D1:85:LEU:HD23	1.99	0.44
1:CA:838:G:H2'	1:CA:839:U:H5''	2.00	0.44
15:AO:74:ASP:OD2	15:AO:77:ARG:HD3	2.17	0.44
25:BA:2418:A:OP2	54:B8:29:LYS:HE3	2.18	0.44
53:B7:10:ARG:O	53:B7:14:LYS:HG2	2.18	0.44
25:BA:320:A:H4'	25:BA:322:A:C8	2.53	0.44
6:AF:33:TYR:HE1	6:AF:78:GLU:HG2	1.82	0.44
1:CA:119:A:H5'	1:CA:120:A:C4	2.52	0.44
42:BW:71:VAL:HA	42:BW:107:LEU:HD12	2.00	0.44
25:DA:1813:G:H1'	27:DD:50:THR:OG1	2.18	0.44
25:DA:85:G:H1	25:DA:97:C:H42	1.66	0.44
25:BA:375:C:OP1	58:BA:4900:HOH:O	2.21	0.44
25:DA:1665:A:H4'	34:DO:67:LYS:HB2	2.00	0.44
27:BD:242:ARG:HG2	27:BD:246:PRO:HG3	1.99	0.44
10:AJ:42:THR:HG21	10:AJ:66:ARG:HD2	1.99	0.44
25:BA:823:G:C5	25:BA:835:A:C2	3.05	0.44
25:BA:969:U:OP1	49:B3:17:LYS:HG2	2.17	0.44
26:BB:84:C:OP1	49:B3:15:TYR:OH	2.28	0.44
25:BA:1854:A:H2'	25:BA:1855:G:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:69:GLY:O	9:CI:73:GLN:N	2.37	0.44
53:D7:1:MET:O	53:D7:3:ARG:HG2	2.18	0.44
31:BH:171:LEU:H	31:BH:171:LEU:HD22	1.81	0.44
1:AA:1168:A:C6	1:AA:1169:A:C6	3.06	0.44
34:BO:77:ILE:HG13	39:BT:74:ARG:HD3	1.99	0.44
25:DA:597:U:H2'	25:DA:598:G:C8	2.52	0.44
1:CA:384:G:C6	1:CA:385:C:N4	2.85	0.44
25:DA:1366:A:H2'	25:DA:1367:A:O4'	2.18	0.44
25:DA:861:A:N3	26:DB:79:C:O2'	2.50	0.44
6:CF:26:ILE:O	6:CF:30:LEU:HD12	2.17	0.44
25:BA:652(J):G:H1	25:BA:652(P):G:H22	1.65	0.44
1:CA:1347:G:N1	1:CA:1374:A:OP2	2.42	0.44
25:BA:528:A:C8	25:BA:528:A:H3'	2.53	0.44
25:BA:271(I):G:C6	25:BA:271(J):C:N4	2.85	0.44
4:AD:118:ARG:O	4:AD:121:VAL:N	2.51	0.44
1:CA:39:G:C6	1:CA:40:C:C5	3.06	0.44
4:CD:73:ARG:O	4:CD:77:ASN:HB2	2.18	0.44
30:BG:139:LEU:HD23	30:BG:149:VAL:HG11	1.98	0.44
28:DE:111:ARG:HA	37:DR:1:MET:SD	2.58	0.44
48:B2:52:ASP:O	48:B2:56:GLN:HG3	2.17	0.44
1:AA:437:U:C5	1:AA:438:G:N7	2.85	0.44
25:DA:1344:G:H4'	25:DA:1384:A:C5	2.53	0.44
40:DU:76:TYR:CZ	40:DU:80:ILE:HG13	2.52	0.44
25:BA:2207:G:HO2'	25:BA:2208:A:P	2.38	0.44
35:DP:47:ASP:HA	35:DP:48:PRO:HD3	1.72	0.44
25:DA:1857:G:H1'	25:DA:1885:A:N6	2.33	0.44
13:AM:49:THR:HG23	13:AM:52:GLU:OE2	2.17	0.44
20:CT:38:LYS:HA	20:CT:41:ILE:HD11	1.99	0.44
16:AP:4:ILE:HA	16:AP:20:VAL:O	2.18	0.44
25:DA:2405:G:O5'	25:DA:2405:G:H8	2.00	0.44
25:DA:2870:C:H2'	25:DA:2871:C:O4'	2.17	0.44
5:CE:88:LYS:HG2	5:CE:123:LEU:HB2	2.00	0.44
3:CC:114:PRO:O	3:CC:118:GLN:HG2	2.17	0.44
25:BA:1630:G:N2	25:BA:1636:C:O2	2.41	0.44
1:CA:663:A:H2'	1:CA:664:G:O4'	2.18	0.44
41:DV:52:VAL:HG21	41:DV:55:ALA:HB3	1.98	0.44
25:DA:2318:G:H2'	25:DA:2319:G:OP1	2.17	0.44
52:D6:9:LEU:HD21	52:D6:25:LYS:HB3	2.00	0.44
3:CC:4:LYS:HB2	3:CC:4:LYS:HE3	1.82	0.44
25:BA:2032:G:N2	25:BA:2572:A:OP2	2.50	0.44
26:BB:89:G:C6	26:BB:90:A:N6	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2525:G:N2	25:DA:2539:C:C2	2.86	0.44
37:BR:100:LEU:HD21	37:BR:113:LEU:HD23	2.00	0.44
25:DA:1665:A:C4'	34:DO:67:LYS:HB2	2.47	0.44
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.52	0.44
31:BH:56:SER:OG	31:BH:58:GLU:N	2.42	0.44
1:AA:748:C:H4'	1:AA:749:C:O5'	2.18	0.44
30:DG:35:GLU:HB3	30:DG:160:VAL:O	2.18	0.44
25:DA:2456:C:N4	58:DA:3942:HOH:O	2.51	0.44
46:B0:51:VAL:HG22	46:B0:81:VAL:HG23	1.99	0.44
11:AK:114:VAL:HA	11:AK:115:PRO:HD2	1.76	0.44
25:BA:306:U:H2'	25:BA:307:G:O4'	2.17	0.44
32:DI:11:ASN:O	32:DI:12:LEU:HG	2.18	0.44
1:AA:790:A:OP1	23:AV:38:A:O2'	2.31	0.44
37:BR:107:ASP:N	37:BR:107:ASP:OD2	2.28	0.44
1:AA:1446:U:O2'	1:AA:1447:A:C8	2.70	0.44
14:CN:45:ARG:O	14:CN:49:HIS:HD2	1.99	0.44
25:BA:1653:G:H4'	25:BA:1654:A:O5'	2.18	0.44
25:DA:299:A:H5''	44:DY:86:ARG:NH2	2.25	0.44
42:BW:78:GLU:OE1	42:BW:99:ARG:HD3	2.18	0.44
1:CA:587:G:N1	1:CA:754:C:OP2	2.51	0.44
38:DS:96:GLY:CA	38:DS:100:ALA:H	2.30	0.44
1:AA:351:G:H4'	1:AA:352:C:OP1	2.17	0.44
8:AH:20:TYR:HE2	8:AH:75:ARG:HG2	1.83	0.44
39:BT:97:ALA:O	39:BT:98:LYS:HD3	2.18	0.44
23:CV:40:C:O2'	23:CV:41:C:H5'	2.17	0.44
25:DA:2017:U:H4'	51:D5:8:LYS:O	2.17	0.44
34:BO:7:TYR:C	34:BO:8:LEU:HD22	2.38	0.44
2:CB:194:PRO:HB2	2:CB:195:ASP:OD1	2.18	0.44
3:CC:52:LEU:HA	3:CC:70:VAL:HA	1.99	0.44
25:DA:1654:A:OP1	37:DR:1:MET:HA	2.18	0.44
25:DA:1344:G:H4'	25:DA:1384:A:N7	2.33	0.44
1:AA:1173:G:C6	1:AA:1174:G:C5	3.06	0.44
25:BA:655:A:H8	25:BA:656:G:C1'	2.31	0.44
25:BA:2295:C:OP1	38:BS:10:ARG:NH1	2.51	0.44
1:CA:1107:C:C4	1:CA:1108:G:N7	2.86	0.44
25:DA:234:C:H2'	25:DA:235:U:C6	2.53	0.44
25:DA:218:A:C2	25:DA:235:U:H4'	2.53	0.44
13:CM:106:ASN:N	13:CM:106:ASN:OD1	2.49	0.44
2:AB:166:ASP:OD2	2:AB:167:PRO:HD2	2.18	0.44
25:DA:228:A:H2'	25:DA:230:U:O4'	2.18	0.44
13:CM:33:ALA:HA	13:CM:59:TYR:HE1	1.79	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:69:ARG:HG3	31:BH:70:THR:N	2.32	0.44
25:BA:2698:U:H2'	25:BA:2699:C:H6	1.82	0.44
26:BB:30:C:H2'	26:BB:31:C:H5'	2.00	0.44
1:CA:1305:G:N2	1:CA:1331:G:O2'	2.49	0.44
7:CG:10:ARG:HG2	7:CG:10:ARG:NH1	2.33	0.44
1:CA:790:A:N6	1:CA:1498:U:OP1	2.51	0.44
25:DA:588:U:H1'	29:DF:90:PHE:CG	2.53	0.44
25:DA:2667:C:H1'	31:DH:109:PHE:CD2	2.53	0.44
4:CD:103:ASN:OD1	4:CD:114:ARG:NE	2.45	0.44
1:AA:1092:A:C6	1:AA:1093:A:C6	3.06	0.44
25:BA:28:A:C2	25:BA:513:A:C8	3.06	0.44
25:BA:2793:G:N2	25:BA:2804:C:H1'	2.33	0.44
8:CH:29:SER:O	8:CH:32:LYS:HB2	2.17	0.44
5:CE:39:GLY:O	5:CE:69:VAL:HG13	2.17	0.44
25:BA:2012:G:O3'	42:BW:96:ILE:HD12	2.18	0.44
25:BA:2663:G:C6	25:BA:2664:G:C4	3.05	0.44
27:DD:171:ASP:O	27:DD:187:GLY:N	2.49	0.44
29:BF:129:PHE:HA	29:BF:142:TRP:NE1	2.33	0.44
35:BP:83:VAL:HG13	35:BP:112:LEU:HD21	1.98	0.44
28:BE:12:THR:HG22	28:BE:13:ARG:H	1.82	0.44
42:BW:30:GLU:O	42:BW:34:ASN:ND2	2.45	0.44
25:DA:2774:C:H2'	25:DA:2775:A:O4'	2.18	0.44
34:DO:69:ILE:HG13	34:DO:69:ILE:H	1.58	0.44
12:CL:84:LEU:HD23	12:CL:105:TYR:HE1	1.82	0.44
4:AD:98:GLU:O	4:AD:103:ASN:ND2	2.50	0.44
1:CA:1508:G:H2'	1:CA:1509:C:O4'	2.17	0.44
28:DE:181:LEU:HA	28:DE:181:LEU:HD13	1.60	0.44
3:CC:37:GLN:NE2	14:CN:52:GLN:OE1	2.39	0.44
1:AA:1365:G:C6	1:AA:1366:C:C4	3.06	0.44
38:BS:35:ILE:HD11	38:BS:101:LEU:CD1	2.47	0.44
14:AN:27:CYS:C	14:AN:29:ARG:H	2.20	0.44
1:AA:390:C:O3'	16:AP:28:ARG:NH2	2.50	0.44
25:BA:1003:G:N2	25:BA:1153:C:C2	2.85	0.44
25:DA:2079:U:OP1	47:D1:21:ARG:NH2	2.51	0.44
10:CJ:40:LEU:HD23	10:CJ:40:LEU:HA	1.70	0.44
1:CA:1298:C:H2'	7:CG:114:ARG:NH1	2.33	0.44
1:CA:503:C:H2'	1:CA:504:C:C6	2.53	0.44
25:DA:1022:G:N2	25:DA:1142(A):A:H2	2.16	0.44
43:BX:60:ARG:HH11	43:BX:60:ARG:CB	2.27	0.44
25:DA:2313:C:OP1	30:DG:71:THR:HG21	2.18	0.44
9:AI:15:ALA:HB2	9:AI:65:VAL:HG23	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:D4:14:ILE:HG22	50:D4:33:VAL:CG2	2.48	0.44
3:CC:134:ILE:HG23	3:CC:151:VAL:HB	1.98	0.44
1:CA:1073:U:O4	1:CA:1102:A:N1	2.51	0.44
1:AA:511:C:O2	1:AA:512:U:C6	2.71	0.44
2:CB:78:GLN:NE2	2:CB:94:ASN:O	2.51	0.44
1:AA:688:G:H2'	1:AA:689:C:C6	2.50	0.44
45:DZ:160:GLY:HA2	45:DZ:161:VAL:HB	2.00	0.44
28:BE:78:LEU:C	28:BE:79:ARG:HG2	2.36	0.44
1:AA:690:G:C6	1:AA:691:G:C6	3.06	0.44
25:DA:519:U:O2'	25:DA:520:G:H5'	2.17	0.44
4:AD:173:TRP:NE1	4:AD:174:LEU:HG	2.33	0.44
25:DA:971:C:C2'	25:DA:972:G:H5'	2.48	0.44
25:BA:2751:G:C5	31:BH:2:SER:N	2.85	0.44
1:AA:44:G:H2'	1:AA:45:U:O4'	2.17	0.44
1:AA:552:U:C2'	1:AA:553:A:H5'	2.48	0.44
1:CA:1300:G:O2'	1:CA:1301:U:P	2.76	0.44
28:DE:119:ARG:HG2	28:DE:160:TYR:HB2	2.00	0.44
1:AA:1248:A:C6	1:AA:1249:C:C4	3.06	0.44
14:AN:53:LEU:HA	14:AN:54:PRO:HD3	1.86	0.44
1:AA:1010:G:C2	1:AA:1011:G:C5	3.06	0.44
1:AA:243:A:C2	1:AA:246:A:C8	3.06	0.44
25:DA:2623:G:H4'	25:DA:2825:C:O2	2.18	0.44
25:BA:1810:A:H2'	25:BA:1811:G:O4'	2.18	0.44
52:B6:8:LYS:HA	52:B6:24:GLU:HA	2.00	0.44
12:CL:66:VAL:HG11	12:CL:98:TYR:CE1	2.52	0.44
1:AA:854:G:H3'	1:AA:871:U:O4	2.18	0.44
27:DD:119:ALA:HB2	27:DD:130:ALA:HB3	2.00	0.44
27:BD:172:TYR:HD1	27:BD:185:VAL:C	2.21	0.44
25:DA:459:U:H5''	53:D7:40:TRP:CD2	2.53	0.44
25:DA:870:A:OP1	36:DQ:6:ARG:NE	2.50	0.44
1:AA:783:C:OP1	1:AA:1515:C:O2'	2.33	0.44
48:B2:37:PHE:O	48:B2:41:ILE:HD13	2.18	0.44
45:DZ:119:GLU:OE2	45:DZ:122:ARG:NH1	2.51	0.44
25:BA:2432:A:H5''	25:BA:2433:A:OP2	2.18	0.44
26:DB:8:U:H5''	26:DB:8:U:H6	1.83	0.44
55:B9:26:ILE:HG13	55:B9:26:ILE:H	1.49	0.44
35:DP:46:LYS:HZ2	35:DP:46:LYS:HG2	1.73	0.44
1:CA:673:G:H5''	6:CF:87:ARG:NH1	2.33	0.44
1:AA:1201:A:O2'	1:AA:1202:G:OP2	2.34	0.44
25:DA:925:C:C2	25:DA:926:A:C8	3.06	0.44
25:DA:1632:A:N6	58:DA:3968:HOH:O	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:826:U:C4'	35:BP:55:ARG:HB2	2.47	0.44
1:AA:1118:C:O4'	1:AA:1179:A:H1'	2.18	0.44
25:DA:144:C:H2'	25:DA:145:G:C8	2.53	0.44
25:BA:271(M):G:HO2'	25:BA:271(N):U:P	2.41	0.44
33:BN:67:LEU:O	33:BN:88:GLU:HG3	2.17	0.44
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.18	0.44
7:AG:113:GLU:HG2	7:AG:119:ARG:HG2	1.98	0.44
25:DA:627:A:C6	25:DA:637:A:C8	3.06	0.44
25:DA:828:U:H4'	25:DA:831:G:N1	2.33	0.44
33:DN:104:LYS:HB2	33:DN:117:PHE:HE1	1.78	0.44
25:BA:2206:G:C5'	25:BA:2207:G:N7	2.80	0.44
14:CN:26:ARG:HB3	14:CN:43:CYS:SG	2.58	0.44
46:D0:14:ARG:HH11	46:D0:14:ARG:HG2	1.83	0.44
28:BE:115:GLY:O	28:BE:119:ARG:HB2	2.17	0.44
1:CA:939:G:H1	1:CA:1344:C:N4	2.16	0.44
25:BA:1693:U:H1'	27:BD:14:ARG:NH2	2.33	0.44
7:AG:150:ALA:HA	11:AK:59:TYR:HB3	1.99	0.44
25:DA:977:G:N2	25:DA:986:C:O2	2.51	0.44
1:CA:634:C:H2'	1:CA:635:G:H8	1.83	0.44
17:AQ:45:HIS:CB	17:AQ:65:ILE:HD13	2.48	0.44
12:AL:32:PHE:HB3	12:AL:85:ILE:O	2.17	0.44
1:CA:1266:G:N2	1:CA:1269:A:OP2	2.48	0.44
2:AB:16:HIS:O	2:AB:210:SER:OG	2.35	0.44
25:BA:1583:A:H5'	25:BA:1584:C:C5'	2.48	0.44
25:BA:1636:C:H2'	25:BA:1637:A:C8	2.53	0.44
1:CA:1134:G:N3	1:CA:1134:G:H2'	2.33	0.44
8:AH:11:THR:HG23	8:AH:14:ARG:HH12	1.82	0.44
4:CD:64:LEU:HB2	4:CD:198:VAL:HG21	1.99	0.44
34:BO:101:PRO:HA	34:BO:120:GLU:O	2.18	0.44
1:AA:189(E):U:O2'	1:AA:189(F):U:H5'	2.17	0.44
23:CV:12:G:H1'	25:DA:1923:U:O2'	2.17	0.44
25:DA:647:G:O5'	25:DA:647:G:H8	2.01	0.44
1:CA:850:U:H2'	1:CA:851:G:H5''	2.00	0.44
1:CA:779:C:H5''	11:CK:122:LYS:HG2	2.00	0.44
1:AA:658:G:H2'	1:AA:659:U:H6	1.82	0.44
36:DQ:11:LYS:HD2	36:DQ:87:LYS:HD3	1.99	0.44
24:AX:5:U:O2'	24:AX:6:G:H5'	2.18	0.44
1:AA:245:C:O2	1:AA:283:C:N3	2.51	0.44
40:DU:69:CYS:HB3	40:DU:74:LEU:HD13	1.99	0.44
25:BA:460:A:P	53:B7:41:ARG:HH22	2.41	0.44
25:BA:636:G:C2	35:BP:115:LEU:HD11	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:111:ARG:O	9:AI:113:LYS:HD2	2.17	0.44
25:BA:387:U:H4'	25:BA:388:G:O5'	2.18	0.44
3:AC:53:ALA:O	3:AC:54:ARG:HB2	2.18	0.44
33:DN:136:GLU:HG2	33:DN:137:LYS:O	2.17	0.44
23:CV:43:A:C2	23:CV:44:A:C4	3.06	0.44
44:BY:34:LYS:HE2	44:BY:34:LYS:HB3	1.40	0.44
30:BG:7:LEU:HD23	30:BG:7:LEU:HA	1.77	0.44
31:DH:160:LYS:HB2	31:DH:160:LYS:HE3	1.84	0.44
12:AL:6:THR:O	12:AL:6:THR:OG1	2.36	0.44
34:BO:45:GLU:HA	34:BO:54:GLU:HG2	2.00	0.44
25:BA:2078:C:H2'	25:BA:2079:U:O4'	2.18	0.43
23:CV:69:C:C2'	23:CV:70:G:H5'	2.47	0.43
8:AH:12:ARG:NH2	8:AH:27:PRO:HD3	2.33	0.43
26:DB:37:C:H2'	26:DB:38:C:H5'	2.00	0.43
38:DS:30:ARG:HG3	38:DS:97:ARG:CZ	2.48	0.43
25:DA:2078:C:H2'	25:DA:2079:U:O4'	2.17	0.43
25:DA:499:U:H2'	25:DA:500:G:O4'	2.18	0.43
25:DA:2713:A:N3	25:DA:2713:A:H2'	2.33	0.43
43:BX:60:ARG:CG	43:BX:60:ARG:HH11	2.31	0.43
25:BA:61:G:OP2	48:B2:54:LYS:NZ	2.51	0.43
26:DB:42:C:O2	30:DG:93:THR:N	2.38	0.43
33:BN:137:LYS:HD3	33:BN:138:LEU:H	1.82	0.43
1:CA:176:C:H2'	1:CA:177:C:C6	2.53	0.43
26:BB:95:C:H2'	26:BB:96:U:H6	1.81	0.43
2:AB:73:THR:HG23	2:AB:170:GLU:OE1	2.18	0.43
1:CA:1452:C:O2'	1:CA:1456:G:OP1	2.31	0.43
25:DA:729:G:H2'	25:DA:1775:U:O2	2.17	0.43
25:DA:729:G:C6	27:DD:208:LYS:HB2	2.53	0.43
25:DA:2536:G:C5	25:DA:2537:U:C5	3.06	0.43
54:B8:39:LYS:HB2	54:B8:42:ARG:HH12	1.83	0.43
25:BA:26:G:C6	25:BA:27:G:N1	2.86	0.43
36:DQ:24:GLY:HA2	36:DQ:67:ARG:NH2	2.33	0.43
27:BD:233:HIS:NE2	27:BD:246:PRO:HA	2.33	0.43
25:DA:225:A:N6	25:DA:226:G:C2	2.86	0.43
35:BP:84:ASN:ND2	35:BP:117:GLU:HB2	2.33	0.43
25:DA:892:G:H2'	25:DA:893:C:O4'	2.18	0.43
7:CG:99:LEU:HD22	7:CG:103:TRP:CZ2	2.53	0.43
1:AA:935:A:C2	1:AA:936:C:C2	3.05	0.43
25:DA:13:A:N1	25:DA:525:U:H2'	2.33	0.43
26:BB:50:G:O5'	26:BB:50:G:H8	2.00	0.43
39:BT:37:GLY:HA2	39:BT:38:ASN:HA	1.75	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:26:VAL:HG12	31:BH:79:VAL:HG21	2.00	0.43
27:DD:228:PRO:HD3	27:DD:235:GLY:HA3	1.99	0.43
25:DA:1264:G:OP1	51:D5:19:ARG:NH1	2.47	0.43
1:CA:558:G:H8	1:CA:558:G:O5'	2.01	0.43
1:CA:1471:G:H2'	1:CA:1472:U:H6	1.83	0.43
33:DN:96:GLU:N	33:DN:96:GLU:OE2	2.35	0.43
25:DA:372:G:O2'	25:DA:373:U:P	2.75	0.43
45:BZ:145:GLU:H	45:BZ:148:ASP:HB2	1.83	0.43
1:CA:717:C:H5''	1:CA:717:C:H6	1.82	0.43
25:DA:272(A):U:H5'	25:DA:272(A):U:H6	1.82	0.43
28:DE:21:VAL:HA	28:DE:22:PRO:HD2	1.84	0.43
25:DA:76:C:O3'	48:D2:59:ARG:HD3	2.18	0.43
1:CA:35:G:O2'	12:CL:118:SER:O	2.35	0.43
25:DA:1155:A:OP1	40:DU:55:ARG:HD3	2.18	0.43
25:BA:15:G:OP2	58:BA:3992:HOH:O	2.21	0.43
22:AY:88:LEU:HD13	22:AY:88:LEU:HA	1.64	0.43
1:AA:96:U:O2'	1:AA:97:G:P	2.76	0.43
25:BA:2285:C:C5	52:B6:6:ARG:NH2	2.86	0.43
10:CJ:50:ILE:HA	10:CJ:60:ARG:HG2	2.00	0.43
1:AA:160:A:O4'	1:AA:344:A:C2	2.71	0.43
29:DF:183:VAL:O	29:DF:187:VAL:HG23	2.17	0.43
2:CB:206:ASP:O	2:CB:211:ILE:HD11	2.18	0.43
4:AD:101:LEU:HD23	4:AD:121:VAL:HG13	2.00	0.43
25:DA:1140:C:OP2	33:DN:66:LYS:NZ	2.49	0.43
25:DA:2815:C:H5'	51:D5:29:THR:HG21	1.99	0.43
25:DA:2820:A:C8	28:DE:109:LYS:HE2	2.53	0.43
45:BZ:45:ASP:O	45:BZ:49:ARG:HG3	2.18	0.43
1:CA:1319:A:H61	1:CA:1361:G:H21	1.67	0.43
37:DR:52:ILE:HD12	37:DR:94:TYR:CB	2.47	0.43
1:CA:1310:G:OP1	13:CM:77:ASN:ND2	2.48	0.43
1:CA:589:C:H2'	1:CA:590:C:C6	2.53	0.43
10:AJ:49:VAL:HG23	14:AN:41:ARG:CG	2.49	0.43
35:BP:36:LYS:HB3	35:BP:37:GLY:H	1.59	0.43
23:CV:25:C:H2'	23:CV:26:G:O4'	2.17	0.43
1:AA:545:C:H5'	4:AD:72:GLU:HG2	2.00	0.43
25:BA:2064:C:H2'	25:BA:2065:C:C6	2.53	0.43
25:DA:2290:G:O2'	25:DA:2381:C:H1'	2.18	0.43
1:CA:928:G:H1	1:CA:1389:C:N4	2.16	0.43
1:AA:313:A:H2'	1:AA:314:C:H6	1.83	0.43
10:CJ:8:LEU:HD13	10:CJ:19:SER:OG	2.18	0.43
2:AB:97:TRP:HH2	2:AB:176:GLU:HG3	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:665:A:H2'	1:CA:725:G:N2	2.33	0.43
22:AY:9:ALA:HB1	22:AY:10:ILE:HA	1.99	0.43
25:BA:154:G:H5''	25:BA:154:G:C8	2.53	0.43
1:AA:840:C:H4'	1:AA:841:U:OP1	2.17	0.43
6:AF:76:ALA:HB1	6:AF:80:ARG:HH22	1.83	0.43
25:BA:619:G:O6	29:BF:103:LYS:HE3	2.18	0.43
46:B0:17:GLN:O	46:B0:19:LYS:HE3	2.18	0.43
50:D4:42:PHE:CA	50:D4:43:TYR:HB2	2.49	0.43
32:BI:42:SER:OG	32:BI:43:ASN:N	2.51	0.43
8:CH:5:PRO:O	8:CH:8:ASP:HB3	2.18	0.43
25:DA:2745:C:H4'	31:DH:142:GLY:O	2.19	0.43
1:AA:144:G:H2'	1:AA:145:G:O4'	2.18	0.43
40:DU:39:LEU:HA	40:DU:39:LEU:HD23	1.68	0.43
27:BD:69:ARG:HD2	27:BD:105:ILE:HG21	2.00	0.43
25:DA:910:A:C5	36:DQ:13:GLN:HG3	2.53	0.43
26:DB:91:C:OP1	36:DQ:16:ARG:HG2	2.17	0.43
1:CA:1181:G:H2'	1:CA:1182:G:C5	2.53	0.43
4:AD:43:HIS:CE1	4:AD:46:LYS:HZ2	2.36	0.43
25:DA:924:C:H2'	25:DA:925:C:H6	1.82	0.43
1:AA:924:C:O2'	1:AA:1502:A:N6	2.52	0.43
1:CA:874:G:H2'	1:CA:875:C:H6	1.83	0.43
25:DA:341:G:H2'	25:DA:342:G:O4'	2.18	0.43
25:BA:2615:U:C1'	51:B5:7:PRO:HB3	2.48	0.43
23:CV:3:C:N4	23:CV:70:G:H1	2.10	0.43
1:AA:342:C:N3	1:AA:348:G:C2	2.86	0.43
2:CB:211:ILE:O	2:CB:215:LEU:HB2	2.18	0.43
45:BZ:146:ILE:HA	45:BZ:174:VAL:HG12	2.00	0.43
25:DA:2562:U:H4'	34:DO:25:LEU:HD21	1.99	0.43
27:BD:6:PHE:HB2	27:BD:13:ARG:O	2.18	0.43
13:AM:56:LEU:O	13:AM:60:VAL:HG22	2.18	0.43
13:AM:63:THR:HG22	13:AM:64:TRP:CD2	2.54	0.43
25:DA:9:U:N3	25:DA:2629:A:H2	2.13	0.43
48:B2:28:LYS:HE3	48:B2:56:GLN:OE1	2.17	0.43
25:BA:804:A:H5''	25:BA:805:G:OP1	2.18	0.43
44:DY:39:VAL:O	44:DY:42:VAL:HB	2.18	0.43
25:BA:2365:G:H4'	46:B0:60:PHE:CZ	2.54	0.43
25:DA:2304:G:O6	58:DA:4705:HOH:O	2.21	0.43
1:AA:601:C:O2'	1:AA:602:A:H5'	2.18	0.43
25:DA:2262:U:H4'	25:DA:2328:A:C2	2.53	0.43
2:CB:72:GLY:O	2:CB:94:ASN:HA	2.18	0.43
45:BZ:111:VAL:O	45:BZ:113:ALA:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1329:A:H2'	1:CA:1330:U:O4'	2.19	0.43
27:DD:221:VAL:HG23	27:DD:226:MET:HE2	1.98	0.43
27:BD:155:LEU:N	27:BD:155:LEU:CD1	2.80	0.43
27:BD:155:LEU:HD23	27:BD:177:LEU:HD22	2.00	0.43
1:AA:693:G:H2'	1:AA:694:A:C8	2.53	0.43
4:CD:65:ARG:HG2	4:CD:75:PHE:CD1	2.53	0.43
1:CA:33:A:H2'	1:CA:34:C:C6	2.53	0.43
1:AA:564:C:C6	17:AQ:31:LEU:HD21	2.53	0.43
25:DA:2617:C:C2	25:DA:2618:G:C8	3.07	0.43
25:BA:836:G:C5	25:BA:837:C:C4	3.06	0.43
26:BB:53:A:H2'	26:BB:54:G:O4'	2.18	0.43
1:CA:257:G:H2'	1:CA:258:G:H8	1.84	0.43
40:BU:44:ASN:ND2	41:BV:75:PHE:HB3	2.32	0.43
51:D5:41:PRO:HG2	51:D5:44:THR:OG1	2.18	0.43
2:AB:100:GLY:N	2:AB:176:GLU:OE2	2.40	0.43
2:CB:24:TRP:HZ3	2:CB:29:ALA:HB2	1.82	0.43
25:DA:539:G:H2'	25:DA:540:C:H6	1.84	0.43
25:DA:2807:G:C6	25:DA:2808:U:C4	3.06	0.43
25:DA:2228:G:C6	25:DA:2229:C:C4	3.06	0.43
25:BA:1567:A:O4'	25:BA:1568:G:C2	2.71	0.43
38:BS:61:ASN:OD1	38:BS:64:GLU:HG3	2.19	0.43
25:BA:266:G:C6	25:BA:267:C:C5	3.06	0.43
25:DA:1815:A:C6	25:DA:1817:G:O6	2.71	0.43
25:DA:616:G:H5'	29:DF:205:ARG:HH11	1.82	0.43
43:BX:50:LYS:N	43:BX:87:GLN:OE1	2.50	0.43
25:BA:2647:U:H2'	25:BA:2648:C:C6	2.53	0.43
42:BW:96:ILE:HD13	42:BW:96:ILE:HA	1.64	0.43
1:AA:37:U:H2'	1:AA:38:G:O4'	2.18	0.43
33:DN:111:PRO:HA	33:DN:114:ARG:NH1	2.33	0.43
25:DA:2193:G:H2'	25:DA:2194:G:O4'	2.19	0.43
29:DF:61:GLY:HA2	29:DF:77:ASP:HB3	2.00	0.43
7:CG:75:VAL:HG13	7:CG:145:ALA:HB2	2.01	0.43
25:BA:1667:G:H2'	58:BA:4346:HOH:O	2.17	0.43
48:D2:10:LEU:HA	48:D2:10:LEU:HD23	1.82	0.43
36:DQ:77:LYS:HE3	36:DQ:84:GLY:O	2.18	0.43
39:DT:123:GLN:HG3	39:DT:123:GLN:H	1.59	0.43
31:BH:71:LEU:HA	31:BH:71:LEU:HD12	1.66	0.43
45:BZ:124:ILE:HA	45:BZ:124:ILE:HD12	1.79	0.43
39:DT:22:PHE:N	39:DT:22:PHE:CD2	2.86	0.43
25:BA:1601:G:C5	25:BA:1602:U:C4	3.07	0.43
5:AE:89:ILE:HD13	5:AE:90:VAL:N	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BZ:180:VAL:HG13	45:BZ:183:LEU:HD12	2.01	0.43
47:D1:58:ILE:HD11	47:D1:60:PHE:CZ	2.53	0.43
1:CA:1323:G:H4'	1:CA:1363:C:N3	2.34	0.43
1:AA:1367:C:H5'	10:AJ:60:ARG:NH1	2.33	0.43
7:AG:51:GLN:HA	7:AG:55:GLY:HA2	1.99	0.43
1:AA:347:G:C5	1:AA:348:G:C8	3.06	0.43
1:CA:1123:A:H2	10:CJ:39:PRO:HD2	1.83	0.43
34:BO:2:ILE:N	34:BO:2:ILE:HD13	2.33	0.43
1:CA:502:G:H4'	1:CA:550:G:H4'	2.00	0.43
1:AA:911:U:H2'	1:AA:912:C:C6	2.53	0.43
4:AD:119:GLN:O	4:AD:123:HIS:ND1	2.44	0.43
25:BA:2207:G:O2'	25:BA:2208:A:P	2.76	0.43
25:DA:1971:A:OP2	27:DD:242:ARG:NH2	2.51	0.43
15:CO:88:ARG:HH11	15:CO:88:ARG:HG3	1.84	0.43
25:BA:218:A:H2'	25:BA:219:G:O4'	2.17	0.43
48:D2:51:ARG:H	48:D2:54:LYS:HB2	1.83	0.43
1:CA:1049:U:H4'	1:CA:1050:G:O5'	2.19	0.43
9:AI:127:LYS:HG2	58:AV:205:HOH:O	2.17	0.43
6:AF:72:VAL:HG13	6:AF:73:ASN:N	2.33	0.43
1:CA:1134:G:C2	1:CA:1135:U:O4'	2.72	0.43
25:DA:1668:A:N3	25:DA:1670:C:C4	2.86	0.43
2:CB:24:TRP:CZ3	2:CB:26:PRO:HA	2.53	0.43
25:DA:27:G:C2	25:DA:512:G:N3	2.86	0.43
36:DQ:32:TYR:CE2	36:DQ:133:ARG:HG3	2.53	0.43
48:D2:44:LEU:HD22	48:D2:47:ASN:HA	2.00	0.43
25:DA:2805:G:C6	25:DA:2807:G:C5	3.06	0.43
35:BP:65:ARG:HD2	54:B8:25:MET:SD	2.58	0.43
25:BA:2349:G:H8	25:BA:2349:G:H5''	1.82	0.43
18:AR:59:SER:OG	18:AR:62:GLU:HG3	2.18	0.43
25:BA:1805:U:O2	27:BD:50:THR:HB	2.18	0.43
25:DA:280:C:C4	25:DA:361:G:N2	2.87	0.43
1:CA:1434:A:H2'	1:CA:1435:G:O4'	2.18	0.43
25:BA:460:A:OP1	53:B7:41:ARG:NH2	2.49	0.43
1:AA:892:A:H2'	1:AA:893:C:C6	2.53	0.43
33:BN:43:THR:HG22	33:BN:45:ASN:H	1.83	0.43
5:CE:68:GLU:HG2	5:CE:70:PRO:HD3	2.00	0.43
45:DZ:150:LEU:HG	45:DZ:172:ALA:HB3	2.00	0.43
25:DA:651:G:H4'	54:D8:18:ALA:HB3	1.99	0.43
1:CA:37:U:O2'	1:CA:547:A:N1	2.40	0.43
25:BA:2056:G:C2	25:BA:2057:A:C8	3.06	0.43
54:D8:50:LEU:HB2	54:D8:55:ALA:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:631:G:N3	1:CA:631:G:H2'	2.32	0.43
25:BA:652(A):A:N3	25:BA:652(A):A:H2'	2.34	0.43
19:AS:74:PHE:N	19:AS:74:PHE:CD2	2.87	0.43
17:CQ:74:LEU:HD22	17:CQ:74:LEU:HA	1.72	0.43
9:CI:97:LYS:O	9:CI:100:GLY:N	2.46	0.43
26:DB:54:G:H21	30:DG:29:TRP:HZ2	1.66	0.43
25:DA:953:A:OP2	36:DQ:16:ARG:NE	2.50	0.43
1:AA:1181:G:O2'	1:AA:1182:G:C6	2.72	0.43
25:DA:1356:G:N1	25:DA:1357:U:C2	2.86	0.43
2:AB:84:GLU:OE1	2:AB:216:SER:HA	2.18	0.43
25:DA:1265:A:OP1	25:DA:1265:A:H8	2.02	0.43
25:DA:2307:G:H8	25:DA:2307:G:OP1	2.01	0.43
5:CE:51:VAL:O	5:CE:54:ALA:HB3	2.17	0.43
16:CP:72:ARG:HH11	16:CP:72:ARG:CG	2.22	0.43
25:BA:1049:C:H41	25:BA:1111:A:H2	1.63	0.43
1:AA:567:G:H2'	1:AA:568:G:O4'	2.18	0.43
25:BA:271(I):G:O2'	25:BA:271(J):C:H5'	2.19	0.43
25:DA:637:A:H4'	25:DA:638:G:O5'	2.19	0.43
26:DB:110:G:H2'	26:DB:111:G:H8	1.84	0.43
9:AI:107:ARG:HH11	9:AI:107:ARG:CG	2.31	0.43
1:CA:1128:C:O2'	1:CA:1130:A:C8	2.71	0.43
25:BA:973:A:OP1	25:BA:973:A:H8	2.01	0.43
7:CG:113:GLU:CD	7:CG:119:ARG:HG2	2.39	0.43
1:AA:991:U:HO2'	1:AA:992:U:P	2.42	0.43
3:AC:71:ALA:HA	3:AC:106:VAL:CB	2.48	0.43
25:DA:243:U:OP1	54:D8:6:THR:OG1	2.17	0.43
25:DA:34:C:H2'	25:DA:35:G:H5'	2.01	0.43
30:DG:23:PHE:HB2	30:DG:25:TYR:HH	1.83	0.43
34:BO:90:GLN:O	34:BO:91:LEU:HB2	2.19	0.43
1:AA:1350:A:C6	1:AA:1351:U:C4	3.07	0.43
25:DA:530:G:N1	25:DA:2022:U:OP1	2.51	0.43
1:CA:1238:A:C8	1:CA:1303:C:H1'	2.54	0.43
1:CA:675:A:H2'	1:CA:676:A:C8	2.53	0.43
44:BY:92:ASN:N	44:BY:93:GLY:HA2	2.33	0.43
45:DZ:99:TYR:HB3	45:DZ:123:ASP:OD1	2.18	0.43
3:AC:141:VAL:HG11	3:AC:149:ALA:CB	2.49	0.43
36:BQ:57:HIS:NE2	36:BQ:116:GLU:HB3	2.34	0.43
38:DS:10:ARG:NE	38:DS:91:PRO:O	2.51	0.43
25:DA:2791:C:H1'	25:DA:2807:G:N2	2.33	0.43
25:DA:612:C:H2'	25:DA:613:G:O4'	2.17	0.43
36:BQ:42:ILE:HG22	36:BQ:47:ILE:HG13	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DF:78:ILE:H	29:DF:78:ILE:HG13	1.57	0.43
25:BA:2307:G:H4'	25:BA:2308:G:O5'	2.17	0.43
25:DA:691:C:H2'	25:DA:692:C:H6	1.83	0.43
17:CQ:29:HIS:HB3	17:CQ:33:GLY:N	2.33	0.43
25:BA:2669:G:C2	25:BA:2670:A:C8	3.07	0.43
25:BA:2398:U:H2'	25:BA:2399:G:C8	2.53	0.43
32:BI:4:ILE:HD11	32:BI:44:LEU:HD12	2.00	0.43
17:AQ:74:LEU:HD13	17:AQ:75:ARG:HB3	2.01	0.43
25:BA:41:C:H2'	25:BA:42:G:O4'	2.18	0.43
25:DA:2013:A:H4'	42:DW:96:ILE:HD13	2.00	0.43
1:AA:1051:C:H2'	1:AA:1052:U:C6	2.53	0.43
25:BA:719:C:O5'	25:BA:719:C:H6	2.02	0.43
40:BU:27:LEU:N	40:BU:27:LEU:HD23	2.32	0.43
25:BA:652(C):G:H2'	25:BA:652(C):G:N3	2.34	0.43
25:DA:64:A:H2'	25:DA:65:C:C6	2.53	0.43
35:DP:75:ILE:H	35:DP:75:ILE:HG12	1.39	0.43
5:AE:101:ILE:O	5:AE:120:THR:HG23	2.17	0.43
25:DA:1778:U:P	58:DA:4165:HOH:O	2.76	0.43
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.83	0.43
26:DB:50:G:OP2	38:DS:62:LYS:HD3	2.18	0.43
1:CA:1053:G:N7	1:CA:1200:C:C5'	2.81	0.43
8:CH:58:TYR:O	8:CH:59:LEU:HD23	2.19	0.43
44:BY:99:CYS:HB3	44:BY:102:CYS:SG	2.57	0.43
26:DB:38:C:O4'	38:DS:95:HIS:NE2	2.51	0.43
1:AA:160:A:H8	1:AA:160:A:O5'	2.02	0.43
41:BV:28:GLU:HG3	41:BV:29:PRO:HD2	2.00	0.43
1:CA:1339:A:H2'	1:CA:1340:A:O4'	2.19	0.43
27:BD:130:ALA:C	27:BD:131:LEU:HD12	2.39	0.43
25:DA:1331:A:H2'	25:DA:1333:C:C5	2.53	0.43
33:DN:62:VAL:HG13	33:DN:66:LYS:HB2	2.01	0.43
1:CA:1273:G:C5	1:CA:1274:G:C8	3.07	0.43
1:AA:458:C:H3'	1:AA:460:G:H8	1.83	0.43
25:DA:2315:G:C6	25:DA:2316:C:C4	3.07	0.43
15:CO:79:ARG:HA	15:CO:82:ILE:HD11	2.01	0.43
1:AA:511:C:C5	1:AA:541:G:N2	2.86	0.43
1:AA:539:A:OP1	12:AL:114:LYS:HG2	2.19	0.43
2:AB:18:GLY:HA3	2:AB:41:ILE:HG23	2.00	0.43
38:BS:15:ARG:NE	38:BS:88:ASP:OD2	2.50	0.43
37:DR:29:LEU:HD23	37:DR:70:LEU:HD11	2.00	0.43
37:DR:70:LEU:HA	37:DR:70:LEU:HD23	1.80	0.43
25:BA:1421:G:C2	25:BA:1422:G:C8	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:47:THR:HG23	2:AB:202:PRO:HG2	2.00	0.43
25:DA:2300:G:N7	58:DA:3780:HOH:O	2.36	0.43
1:AA:44:G:N3	1:AA:399:G:C2	2.86	0.43
34:DO:13:ASN:C	34:DO:15:GLY:N	2.71	0.43
26:BB:29:A:P	38:BS:32:LEU:HD12	2.59	0.43
25:BA:1581:G:C6	25:BA:1582:C:C4	3.06	0.43
42:BW:65:LEU:CD1	42:BW:68:ARG:HH21	2.31	0.43
1:AA:198:G:H2'	1:AA:199:G:H8	1.84	0.43
15:CO:81:LEU:HG	15:CO:85:LEU:HD12	1.99	0.43
28:BE:134:ILE:O	28:BE:137:HIS:HB2	2.18	0.43
1:AA:189(J):G:H2'	1:AA:189(K):U:H6	1.83	0.43
25:BA:2773:C:H5''	28:BE:164:ARG:HG2	2.01	0.43
1:AA:659:U:O2'	1:AA:660:G:H5'	2.18	0.43
48:D2:17:SER:O	48:D2:21:LEU:HB2	2.18	0.43
1:CA:1415:G:H1	1:CA:1485:U:H3	1.66	0.43
51:B5:41:PRO:HA	51:B5:42:PRO:HD2	1.86	0.43
1:CA:25:C:H5'	1:CA:524:G:H1'	2.00	0.43
25:BA:469:G:O6	53:B7:37:LYS:HE3	2.17	0.43
45:DZ:182:LYS:O	45:DZ:186:GLU:HG3	2.18	0.43
25:DA:992:C:H42	25:DA:1162:G:H1	1.67	0.43
1:CA:1068:G:N3	1:CA:1191:A:C2	2.86	0.43
1:CA:683:G:C2	1:CA:684:A:C4	3.06	0.43
25:BA:2630:G:C5	25:BA:2894:G:N2	2.87	0.43
50:B4:9:LEU:HA	50:B4:9:LEU:HD23	1.78	0.43
51:B5:48:GLU:HA	51:B5:48:GLU:OE1	2.18	0.43
38:BS:24:LEU:HA	38:BS:24:LEU:HD23	1.68	0.43
27:BD:182:LEU:HA	27:BD:182:LEU:HD22	1.88	0.43
17:CQ:89:LEU:HA	17:CQ:89:LEU:HD23	1.85	0.43
25:BA:2811:G:N2	25:BA:2891:G:H1'	2.34	0.43
32:DI:79:ILE:HA	32:DI:80:PRO:HD3	1.69	0.43
1:CA:93:G:H1'	1:CA:96:U:H5'	2.00	0.43
25:BA:569:U:C4	25:BA:570:G:C6	3.06	0.43
25:BA:1403:C:H5''	25:BA:1471:A:C1'	2.37	0.43
32:DI:72:LEU:O	32:DI:73:GLU:HB3	2.19	0.43
34:BO:23:ARG:HG3	34:BO:24:VAL:N	2.33	0.43
1:AA:1392:G:N2	1:AA:1502:A:H8	2.06	0.43
13:AM:94:ARG:HH22	19:AS:80:TYR:HB3	1.84	0.43
1:AA:1149:C:O5'	1:AA:1149:C:H6	2.01	0.43
25:DA:1007:C:OP1	33:DN:37:LYS:HE2	2.19	0.43
27:DD:142:VAL:HG23	27:DD:193:VAL:HA	1.99	0.43
2:CB:102:LEU:O	2:CB:105:PHE:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:105:PHE:HD2	2:CB:158:LEU:HD22	1.83	0.43
1:CA:401:C:H6	1:CA:401:C:O5'	2.01	0.43
25:DA:1142(A):A:C8	25:DA:1144:G:N7	2.87	0.43
18:AR:44:LEU:HD23	18:AR:50:ILE:HA	2.01	0.43
35:DP:84:ASN:HB3	35:DP:86:LYS:HG2	2.01	0.43
23:CV:19:G:H5'	23:CV:20:U:C5	2.54	0.43
1:CA:5:U:H5'	1:CA:6:G:C5	2.54	0.43
25:BA:2312:U:H5'	30:BG:88:ILE:HD11	2.01	0.43
1:AA:507:C:H3'	1:AA:508:C:H2'	2.00	0.43
20:AT:72:LEU:HD21	20:AT:77:ALA:N	2.34	0.43
25:BA:1106:G:H4'	25:BA:1107:G:OP1	2.16	0.43
1:AA:1222:G:C6	1:AA:1223:C:C4	3.06	0.43
46:B0:40:GLN:HG3	46:B0:42:GLY:O	2.18	0.43
4:AD:189:PRO:HB2	4:AD:194:LEU:HD21	1.99	0.43
4:AD:192:GLU:C	4:AD:194:LEU:H	2.21	0.43
25:BA:2095:C:H2'	25:BA:2096:U:O4'	2.19	0.43
48:D2:35:LEU:HD12	48:D2:53:LEU:HD12	1.99	0.43
1:AA:1244:C:C2	1:AA:1294:G:N2	2.87	0.43
23:CV:64:G:C6	23:CV:65:C:C4	3.06	0.43
25:BA:672:C:C2'	25:BA:673:C:H5'	2.49	0.43
25:DA:1945:G:H2'	25:DA:1946:U:C6	2.52	0.43
1:CA:392:G:H2'	1:CA:393:A:C8	2.53	0.43
1:AA:142:G:N3	1:AA:143:A:C8	2.86	0.43
32:BI:23:PRO:O	32:BI:26:ALA:HB3	2.18	0.43
4:AD:13:ARG:O	4:AD:14:ARG:HB3	2.19	0.43
48:D2:29:LYS:HD3	48:D2:57:ILE:HD12	1.99	0.43
9:CI:4:TYR:CE1	9:CI:88:TYR:HA	2.54	0.43
39:BT:120:ARG:HA	39:BT:123:GLN:HG2	2.01	0.43
6:CF:53:ALA:HB3	6:CF:86:ARG:NH1	2.33	0.43
25:DA:1321:A:H2'	25:DA:1322:A:O4'	2.18	0.43
1:AA:1288:A:N1	1:AA:1371:G:H1'	2.34	0.43
51:D5:36:CYS:SG	51:D5:48:GLU:HB2	2.59	0.43
23:AV:18:G:N3	23:AV:58:A:C2	2.87	0.43
25:BA:818:G:H4'	25:BA:838:C:O3'	2.18	0.43
25:BA:1306:C:C2'	25:BA:1307:A:H5'	2.49	0.43
25:BA:1776:G:C2	25:BA:1777:U:C6	3.07	0.43
25:DA:1657:C:H2'	25:DA:1658:C:H6	1.84	0.43
13:AM:115:LYS:HE2	13:AM:115:LYS:HB2	1.61	0.43
30:DG:139:LEU:HG	30:DG:139:LEU:H	1.55	0.43
11:CK:55:LYS:HG2	11:CK:55:LYS:H	1.60	0.43
25:DA:2051:A:H8	25:DA:2051:A:OP2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:98:LEU:HD22	11:CK:98:LEU:HA	1.84	0.43
19:AS:62:ILE:HD12	19:AS:62:ILE:H	1.84	0.43
40:BU:20:LEU:HD23	40:BU:20:LEU:HA	1.36	0.43
27:DD:94:LEU:HD23	27:DD:94:LEU:HA	1.84	0.43
45:DZ:93:ASP:O	45:DZ:131:ARG:NH2	2.51	0.43
48:D2:37:PHE:O	48:D2:40:SER:OG	2.34	0.43
22:AY:51:TYR:HB3	22:AY:55:ARG:HH21	1.84	0.43
25:DA:950:G:H2'	25:DA:951:C:O4'	2.19	0.43
25:BA:1529:G:H2'	25:BA:1530:C:C6	2.53	0.43
47:B1:3:LYS:HB3	47:B1:4:VAL:H	1.64	0.43
25:DA:2286:A:H4'	25:DA:2287:A:O4'	2.18	0.43
25:DA:1530:C:H1'	25:DA:1531:C:OP1	2.19	0.43
1:AA:149:A:O2'	1:AA:150:C:C6	2.70	0.43
1:AA:149:A:O2'	1:AA:150:C:H6	2.00	0.43
1:AA:1143:G:H2'	1:AA:1144:G:C8	2.53	0.43
14:AN:21:TYR:HE2	14:AN:23:ARG:NE	2.06	0.43
1:AA:392:G:OP2	16:AP:12:LYS:HG3	2.18	0.43
25:BA:1043:C:N4	25:BA:1044:G:N7	2.67	0.43
45:DZ:44:PHE:CE2	45:DZ:48:PHE:HB2	2.53	0.43
38:DS:96:GLY:N	38:DS:99:LYS:H	2.17	0.43
27:DD:183:ARG:HG2	27:DD:183:ARG:HH11	1.84	0.43
25:DA:995:C:OP2	40:DU:54:LYS:HE3	2.18	0.43
25:BA:1005:C:C2	25:BA:1143:A:C5	3.07	0.43
1:CA:569:C:H42	1:CA:881:G:H1	1.66	0.43
27:DD:70:TRP:CZ2	27:DD:150:LYS:HG3	2.53	0.43
2:AB:37:ASN:O	2:AB:39:ILE:HG13	2.18	0.43
1:AA:129(A):G:N1	1:AA:189(D):C:N4	2.66	0.43
20:AT:69:GLY:O	20:AT:73:HIS:NE2	2.52	0.43
1:CA:1061:G:H5''	10:CJ:59:SER:CB	2.49	0.43
32:BI:27:ARG:O	32:BI:32:PRO:HD3	2.18	0.43
1:CA:832:C:HO2'	1:CA:833:U:P	2.41	0.43
1:CA:854:G:N1	1:CA:855:G:C5	2.87	0.43
11:CK:79:SER:HA	11:CK:104:GLN:HB2	2.00	0.43
5:CE:19:MET:SD	5:CE:24:ARG:HB3	2.58	0.43
29:BF:125:LEU:HD21	29:BF:199:TRP:CG	2.53	0.43
2:AB:174:VAL:O	2:AB:178:ARG:HB2	2.19	0.43
25:BA:524:U:H2'	25:BA:525:U:C6	2.54	0.43
25:DA:1394:U:C4	25:DA:1395:A:C5	3.06	0.43
40:DU:105:VAL:O	40:DU:108:GLU:HB2	2.19	0.43
5:AE:31:LEU:HA	5:AE:31:LEU:HD23	1.78	0.43
36:BQ:32:TYR:OH	36:BQ:111:GLU:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1067:A:O2'	1:AA:1093:A:O3'	2.31	0.43
54:D8:34:TRP:O	54:D8:35:GLN:HG2	2.19	0.43
29:DF:155:LEU:HD23	29:DF:186:ILE:HG13	2.00	0.43
25:DA:372:G:H8	47:D1:65:SER:O	2.02	0.43
1:CA:683:G:C6	1:CA:684:A:C6	3.07	0.43
1:CA:93:G:HO2'	1:CA:96:U:H6	1.66	0.43
17:CQ:32:TYR:O	17:CQ:34:LYS:N	2.51	0.43
25:BA:634:C:H2'	25:BA:635:C:C6	2.54	0.43
25:DA:1517:G:C6	25:DA:1518:U:C4	3.06	0.43
16:CP:2:VAL:O	16:CP:64:ALA:HA	2.18	0.43
29:DF:64:ILE:HG13	29:DF:65:TRP:N	2.32	0.43
25:DA:740:U:H2'	25:DA:741:G:C8	2.53	0.43
25:DA:838:C:H2'	25:DA:839:U:O4'	2.19	0.43
15:CO:43:LEU:HD23	15:CO:43:LEU:HA	1.59	0.43
1:CA:1332:A:H8	1:CA:1332:A:O5'	2.02	0.43
35:BP:59:LEU:HD23	35:BP:59:LEU:HA	1.77	0.43
37:BR:54:LEU:HA	37:BR:54:LEU:HD12	1.33	0.43
8:AH:86:ILE:HD13	8:AH:86:ILE:HA	1.67	0.43
31:DH:32:GLU:H	31:DH:32:GLU:HG2	1.70	0.43
1:AA:806:C:O2'	1:AA:807:A:H5'	2.18	0.43
1:AA:1443:G:C2	1:AA:1460:A:N3	2.87	0.43
32:BI:17:GLN:HG2	32:BI:18:VAL:N	2.34	0.43
26:BB:43:C:OP1	50:B4:1:MET:HB3	2.19	0.43
25:DA:1889:A:H2'	25:DA:1890:A:H8	1.76	0.43
14:AN:23:ARG:HA	14:AN:23:ARG:HD3	1.45	0.43
50:B4:16:CYS:SG	50:B4:18:CYS:HB2	2.58	0.43
9:AI:9:ARG:CB	9:AI:104:ARG:HE	2.31	0.43
2:CB:216:SER:O	2:CB:219:VAL:N	2.52	0.43
41:BV:31:ALA:O	41:BV:61:VAL:HG13	2.18	0.43
25:DA:993:G:O2'	41:DV:89:GLN:HG3	2.19	0.43
25:DA:848:G:H2'	25:DA:849:A:H8	1.82	0.43
1:CA:1291:G:C6	1:CA:1292:U:C4	3.06	0.43
1:AA:626:U:H2'	1:AA:627:G:H8	1.83	0.43
25:BA:2406:U:C2	35:BP:72:PRO:HG2	2.54	0.43
1:CA:1084:G:H5'	1:CA:1102:A:OP2	2.18	0.43
45:BZ:106:GLY:O	45:BZ:108:PRO:HD3	2.18	0.43
45:BZ:108:PRO:HB2	45:BZ:111:VAL:HG23	2.00	0.43
11:AK:43:SER:HB2	11:AK:68:ALA:HB2	2.00	0.43
25:DA:1278:A:H2'	25:DA:1279:G:C8	2.53	0.43
1:AA:1190:G:OP1	3:AC:5:ILE:HG22	2.19	0.43
37:DR:81:ASP:OD1	37:DR:81:ASP:N	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:900:A:H2'	1:AA:901:A:C8	2.54	0.43
32:BI:67:ARG:O	32:BI:71:ILE:HB	2.19	0.43
25:DA:2660:A:C6	25:DA:2661:G:C6	3.07	0.43
25:BA:2223:G:H2'	25:BA:2224:G:C5'	2.48	0.43
1:CA:1057:G:C5	1:CA:1204:A:C2	3.07	0.43
33:BN:33:LEU:HD12	33:BN:38:HIS:CE1	2.53	0.43
43:DX:35:THR:HG22	43:DX:38:GLU:OE1	2.18	0.43
33:DN:38:HIS:O	40:DU:67:ALA:HB1	2.18	0.43
38:DS:39:ILE:HA	38:DS:39:ILE:HD13	1.80	0.43
36:BQ:57:HIS:HD2	36:BQ:117:ALA:HB2	1.83	0.43
4:AD:146:ILE:N	4:AD:146:ILE:HD12	2.32	0.43
1:AA:1517:G:H1'	25:BA:1919:A:O3'	2.19	0.43
1:AA:189(A):C:H2'	1:AA:189(B):C:C5	2.54	0.43
2:CB:111:ARG:O	2:CB:115:LEU:N	2.52	0.43
1:CA:452:A:C2	1:CA:453:A:C4	3.07	0.43
12:AL:60:LEU:HA	12:AL:60:LEU:HD12	1.73	0.43
33:BN:123:TYR:CZ	33:BN:129:PRO:HG2	2.53	0.43
16:AP:74:LEU:O	16:AP:79:VAL:HB	2.19	0.43
1:AA:684:A:C6	1:AA:685:G:C6	3.07	0.43
25:BA:823:G:C6	25:BA:835:A:C2	3.07	0.43
29:DF:33:LEU:O	29:DF:37:VAL:HG23	2.19	0.43
27:DD:97:TYR:HB2	27:DD:101:GLU:O	2.19	0.43
1:AA:1381:U:C5	1:AA:1382:C:C4	3.07	0.43
54:B8:47:LYS:O	54:B8:48:PHE:HB3	2.18	0.43
25:BA:478:A:C6	25:BA:480:A:C6	3.06	0.43
25:DA:715:G:H2'	25:DA:716:A:O4'	2.18	0.43
32:DI:6:LEU:HG	32:DI:36:ALA:HA	2.01	0.43
46:D0:24:LYS:O	46:D0:25:ARG:HD3	2.18	0.43
25:DA:1462:C:H4'	25:DA:2703:C:H5'	2.00	0.43
13:AM:102:ARG:HH21	13:AM:105:THR:HG23	1.84	0.43
25:DA:2684:U:H2'	25:DA:2685:G:O4'	2.19	0.43
25:DA:2666:C:O5'	25:DA:2666:C:H6	2.01	0.43
9:AI:30:GLY:C	9:AI:31:GLN:HG2	2.39	0.43
25:DA:1122:G:N3	25:DA:1122:G:H2'	2.34	0.43
5:CE:57:LYS:HD3	5:CE:61:TYR:HE2	1.83	0.43
1:AA:359:U:H2'	1:AA:360:A:C8	2.53	0.43
26:DB:33:G:C2	26:DB:50:G:C2	3.07	0.43
25:DA:2206:G:O2'	25:DA:2207:G:OP1	2.34	0.43
42:BW:86:LEU:O	42:BW:94:ASP:N	2.47	0.43
25:BA:1614:A:OP1	25:BA:1617:C:N4	2.50	0.43
35:BP:50:ARG:HG3	35:BP:50:ARG:NH2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:270:A:C6	1:AA:271:C:C4	3.07	0.43
1:AA:663:A:H5''	18:AR:61:LYS:HE3	2.01	0.43
35:DP:3:LEU:HD12	35:DP:3:LEU:N	2.33	0.43
3:AC:36:ASP:N	3:AC:36:ASP:OD2	2.48	0.43
1:AA:1240:U:O4	7:AG:30:ILE:HG23	2.19	0.43
14:CN:53:LEU:HA	14:CN:53:LEU:HD23	1.70	0.43
3:CC:68:VAL:HG12	3:CC:70:VAL:HG22	2.00	0.43
25:BA:1945:G:C4	25:BA:1946:U:C5	3.07	0.43
38:BS:59:LYS:NZ	38:BS:60:GLY:HA2	2.34	0.43
13:CM:23:TYR:CD1	13:CM:71:ARG:NH1	2.87	0.43
1:CA:942:G:C2	1:CA:1342:C:C2	3.06	0.43
25:DA:1169:G:N2	25:DA:1181:C:C2	2.87	0.43
25:BA:514:A:H1'	25:BA:581:C:O2'	2.18	0.43
25:DA:234:C:H2'	25:DA:235:U:H6	1.84	0.43
27:BD:71:ASP:OD2	27:BD:103:ARG:NH2	2.50	0.43
27:BD:95:LEU:O	27:BD:102:LYS:HA	2.18	0.43
29:DF:158:THR:HG21	29:DF:163:VAL:CG1	2.49	0.43
29:BF:194:MET:HE3	29:BF:199:TRP:HE3	1.84	0.43
46:D0:48:GLY:H	46:D0:51:VAL:HB	1.83	0.43
1:CA:1058:G:H1	1:CA:1199:U:H3	1.67	0.43
25:BA:1488:G:H5''	25:BA:1488:G:H8	1.82	0.43
25:BA:1472:A:C4	25:BA:1473:G:C8	3.07	0.43
1:AA:189:G:C6	1:AA:189(L):G:C2	3.07	0.43
25:DA:614(C):A:C4	29:DF:180:GLY:HA2	2.54	0.43
23:AV:19:G:H4'	23:AV:20:U:OP2	2.19	0.43
44:DY:9:LYS:HA	44:DY:10:GLY:HA2	1.76	0.43
25:DA:1815:A:C6	25:DA:1817:G:C6	3.06	0.43
35:DP:25:SER:OG	35:DP:26:GLY:N	2.52	0.43
25:BA:557:U:H2'	25:BA:558:G:C8	2.53	0.43
25:DA:1165:U:H2'	25:DA:1166:C:C6	2.54	0.43
32:DI:9:LEU:HB3	32:DI:12:LEU:HB2	2.01	0.43
29:BF:31:HIS:HB2	35:BP:9:ASN:OD1	2.19	0.43
30:BG:109:VAL:C	30:BG:112:PRO:HD2	2.39	0.43
28:DE:103:ASP:OD1	28:DE:168:MET:HG3	2.19	0.43
9:AI:79:LEU:O	9:AI:83:ARG:HG2	2.18	0.43
9:CI:49:PRO:O	9:CI:52:ALA:N	2.44	0.43
1:CA:41:G:H2'	1:CA:42:G:C8	2.54	0.43
31:BH:93:GLY:O	31:BH:95:ARG:NH2	2.51	0.43
1:CA:447:G:H2'	1:CA:485:G:N2	2.34	0.43
25:BA:2070:G:H2'	25:BA:2071:A:O4'	2.18	0.43
47:D1:72:GLU:HG2	47:D1:72:GLU:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:27:LYS:HD3	13:AM:27:LYS:HA	1.84	0.43
37:DR:28:LEU:HD22	37:DR:28:LEU:O	2.19	0.43
55:D9:9:ARG:HB3	55:D9:14:CYS:HB2	2.01	0.43
1:CA:1046:A:H3'	1:CA:1047:G:H8	1.84	0.43
11:CK:120:ARG:HA	11:CK:121:PRO:HD3	1.82	0.43
25:BA:1439:A:H2'	25:BA:1440:G:O4'	2.18	0.43
25:BA:2106:G:N2	25:BA:2183:C:N3	2.55	0.42
25:DA:1889:A:N1	25:DA:2234:G:H1'	2.33	0.42
1:AA:1399:C:H4'	1:AA:1400:C:C5'	2.49	0.42
20:CT:43:LEU:O	20:CT:47:GLY:N	2.52	0.42
1:CA:171:A:C2	1:CA:172:A:C4	3.07	0.42
25:BA:528:A:O2'	25:BA:529:A:H5'	2.19	0.42
1:AA:344:A:C8	1:AA:344:A:O5'	2.72	0.42
29:DF:32:LEU:HD22	29:DF:112:MET:HE1	2.00	0.42
52:B6:11:LEU:HB3	52:B6:49:HIS:HB3	2.01	0.42
1:CA:1207:G:H2'	1:CA:1208:C:H6	1.83	0.42
1:AA:153:C:N3	1:AA:169:C:N3	2.67	0.42
25:DA:1223:G:OP2	41:DV:66:ARG:NH1	2.52	0.42
1:CA:1061:G:HO2'	1:CA:1062:U:P	2.40	0.42
1:AA:690:G:H2'	1:AA:691:G:O4'	2.18	0.42
25:DA:2872:G:C2'	25:DA:2873:A:H5'	2.49	0.42
2:AB:52:GLU:O	2:AB:55:PHE:N	2.45	0.42
12:CL:85:ILE:HA	12:CL:85:ILE:HD13	1.85	0.42
43:DX:29:TRP:CE3	43:DX:78:LYS:HB3	2.54	0.42
16:CP:55:ARG:O	16:CP:58:TYR:HB3	2.19	0.42
25:DA:2502:G:H5''	25:DA:2503:A:H5''	2.01	0.42
9:CI:99:LEU:HB3	9:CI:101:PHE:HE1	1.82	0.42
1:CA:1300:G:O2'	1:CA:1303:C:N4	2.52	0.42
1:CA:499:A:H4'	1:CA:500:G:H5'	2.00	0.42
33:DN:94:HIS:O	33:DN:97:ARG:HB2	2.19	0.42
33:DN:46:VAL:O	33:DN:47:ALA:HB3	2.19	0.42
28:DE:6:GLY:HA2	28:DE:51:PHE:CZ	2.54	0.42
1:CA:841:U:H6	1:CA:841:U:OP1	2.02	0.42
1:AA:1071:C:O2'	1:AA:1072:G:H5'	2.19	0.42
5:AE:31:LEU:HD23	5:AE:45:PHE:HB2	2.01	0.42
1:AA:52:G:C4	1:AA:53:A:C8	3.06	0.42
1:AA:1065:U:H5'	1:AA:1066:C:OP1	2.18	0.42
25:DA:2016:U:H1'	51:D5:6:VAL:HG13	2.00	0.42
35:DP:50:ARG:HG2	35:DP:51:PHE:N	2.33	0.42
1:CA:153:C:H2'	1:CA:154:C:C6	2.54	0.42
29:BF:197:ASP:O	29:BF:201:VAL:HG12	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DG:173:LEU:HD13	30:DG:178:PHE:CD2	2.54	0.42
6:CF:3:ARG:HB2	6:CF:93:SER:HB2	2.00	0.42
25:BA:272(H):C:N3	25:BA:363(B):G:O6	2.52	0.42
25:BA:278:A:O2'	25:BA:279:C:OP1	2.22	0.42
7:CG:52:GLU:HG2	7:CG:52:GLU:H	1.57	0.42
37:DR:38:VAL:HB	37:DR:39:PRO:HD3	2.00	0.42
25:BA:395:U:O2'	25:BA:396:G:N7	2.45	0.42
25:BA:2412:A:H2'	25:BA:2413:G:O4'	2.19	0.42
29:DF:123:LEU:HD12	29:DF:124:LEU:H	1.84	0.42
12:CL:7:ILE:O	12:CL:11:VAL:HG23	2.18	0.42
4:CD:50:ARG:HA	4:CD:51:PRO:HD3	1.88	0.42
25:BA:337:C:H2'	25:BA:338:G:O4'	2.19	0.42
15:CO:37:ASN:HA	15:CO:40:SER:HB2	2.01	0.42
49:D3:7:LYS:HG3	49:D3:34:GLU:HG2	2.01	0.42
17:CQ:10:VAL:HG13	17:CQ:19:VAL:HG23	2.00	0.42
38:BS:18:ILE:HA	38:BS:18:ILE:HD13	1.86	0.42
25:DA:271(O):C:C4	25:DA:271(P):C:C4	3.08	0.42
25:DA:2207:G:O2'	25:DA:2208:A:OP1	2.33	0.42
38:DS:102:ALA:HA	38:DS:105:ALA:N	2.22	0.42
1:CA:673:G:H5''	6:CF:87:ARG:CZ	2.49	0.42
25:DA:1530:C:HO2'	25:DA:1531:C:P	2.35	0.42
1:AA:1128:C:H42	1:AA:1143:G:H1	1.67	0.42
42:BW:17:VAL:HG11	42:BW:103:ILE:HD13	2.01	0.42
1:CA:1346:A:N1	1:CA:1374:A:H5''	2.33	0.42
2:CB:158:LEU:HA	2:CB:159:PRO:HD3	1.94	0.42
2:CB:97:TRP:CH2	2:CB:176:GLU:CD	2.92	0.42
33:DN:67:LEU:O	33:DN:88:GLU:HG3	2.19	0.42
25:DA:322:A:H3'	29:DF:169:ASN:OD1	2.19	0.42
6:AF:8:ILE:HG13	6:AF:88:VAL:HG22	2.02	0.42
1:CA:1375:A:H2'	1:CA:1376:U:C6	2.54	0.42
25:DA:2183:C:H2'	25:DA:2184:G:H8	1.79	0.42
25:DA:722:A:H2'	25:DA:723:G:C8	2.54	0.42
26:DB:20:C:N4	26:DB:63:G:H1	2.16	0.42
28:DE:35:GLN:HG3	28:DE:36:ARG:N	2.34	0.42
36:DQ:21:THR:CG2	36:DQ:101:ARG:HB2	2.47	0.42
1:AA:15:G:H4'	5:AE:24:ARG:NH1	2.33	0.42
7:CG:26:PHE:CE2	7:CG:30:ILE:HD11	2.55	0.42
25:DA:977:G:C2	25:DA:978:G:C8	3.07	0.42
13:AM:74:VAL:CG1	13:AM:78:ILE:HD11	2.48	0.42
25:BA:2536:G:C5	25:BA:2537:U:C5	3.06	0.42
25:DA:1138:G:O2'	33:DN:105:GLY:HA3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:143:ARG:O	7:AG:145:ALA:O	2.36	0.42
1:AA:189(K):U:H2'	1:AA:189(L):G:C8	2.55	0.42
1:AA:660:G:H2'	1:AA:661:G:O4'	2.20	0.42
25:BA:1956:U:H1'	25:BA:2552:U:OP1	2.18	0.42
1:CA:689:C:OP2	11:CK:55:LYS:NZ	2.41	0.42
29:DF:123:LEU:HD12	29:DF:124:LEU:N	2.34	0.42
55:B9:17:ILE:CG2	55:B9:24:TYR:HB2	2.49	0.42
2:CB:14:GLY:O	2:CB:15:VAL:HG22	2.19	0.42
40:DU:65:ILE:HG13	40:DU:96:ALA:HB2	2.01	0.42
1:AA:767:A:H2'	1:AA:768:A:O4'	2.19	0.42
25:BA:2325:G:H5''	25:BA:2326:C:OP2	2.20	0.42
1:CA:1480:G:H2'	1:CA:1481:U:O4'	2.19	0.42
25:DA:1388:G:H2'	25:DA:1389:G:H8	1.84	0.42
46:D0:21:LEU:HD23	46:D0:21:LEU:HA	1.87	0.42
39:BT:68:TYR:N	39:BT:68:TYR:CD2	2.87	0.42
33:DN:82:LEU:HD23	33:DN:84:LYS:HZ2	1.84	0.42
25:DA:31:C:N4	58:DA:4029:HOH:O	2.52	0.42
22:AY:43:ILE:HA	22:AY:69:VAL:HA	2.02	0.42
25:DA:1371:G:O6	58:DA:4145:HOH:O	2.21	0.42
1:AA:1127:G:H2'	1:AA:1128:C:H5'	2.01	0.42
10:CJ:42:THR:HG21	10:CJ:66:ARG:HB3	2.02	0.42
25:DA:298:G:H5''	25:DA:299:A:OP1	2.20	0.42
16:AP:8:ARG:O	16:AP:9:PHE:CD2	2.72	0.42
31:DH:57:ASP:O	31:DH:62:LYS:HE2	2.19	0.42
1:CA:131:C:H2'	1:CA:132:C:H6	1.84	0.42
29:DF:36:VAL:HG11	29:DF:183:VAL:HG11	2.01	0.42
25:BA:118:A:H3'	25:BA:119:A:C5'	2.49	0.42
6:CF:2:ARG:NE	6:CF:69:GLU:HG2	2.34	0.42
1:AA:753:A:H4'	1:AA:754:C:H5''	2.01	0.42
25:DA:561:G:H1'	40:DU:45:TYR:CE2	2.54	0.42
25:BA:1946:U:H2'	25:BA:1947:C:C6	2.54	0.42
1:AA:406:G:N2	4:AD:119:GLN:HE22	2.17	0.42
44:DY:20:TYR:N	44:DY:20:TYR:CD1	2.86	0.42
6:CF:10:LEU:HD21	6:CF:61:LEU:HD22	2.02	0.42
3:CC:153:VAL:O	3:CC:165:THR:HG23	2.19	0.42
2:CB:86:GLU:C	2:CB:89:GLY:H	2.23	0.42
31:BH:3:ARG:NH2	31:BH:5:GLY:H	2.17	0.42
38:DS:88:ASP:C	38:DS:88:ASP:OD1	2.58	0.42
39:DT:23:ARG:HG3	39:DT:120:ARG:CZ	2.49	0.42
1:CA:1310:G:H1	1:CA:1327:C:N4	2.18	0.42
13:CM:69:GLU:HG3	13:CM:70:LEU:H	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:384:G:C4	1:AA:385:C:C5	3.08	0.42
29:DF:53:THR:HG23	29:DF:55:GLY:H	1.83	0.42
25:BA:722:A:H2'	25:BA:723:G:O4'	2.20	0.42
1:AA:622:A:C8	1:AA:623:C:C5	3.07	0.42
15:AO:87:ILE:HG23	15:AO:88:ARG:N	2.34	0.42
23:CV:63:G:N1	23:CV:64:G:C5	2.87	0.42
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.53	0.42
25:DA:195:A:H5''	25:DA:196:A:O5'	2.18	0.42
20:CT:51:GLU:O	20:CT:54:LYS:HB3	2.19	0.42
35:DP:26:GLY:HA3	35:DP:27:HIS:HB2	2.02	0.42
25:BA:620:G:H4'	25:BA:621:A:O5'	2.19	0.42
1:CA:189(F):U:C5	17:CQ:72:ARG:NH2	2.87	0.42
25:BA:659:C:H5'	58:BA:4028:HOH:O	2.19	0.42
3:CC:12:LEU:HD23	3:CC:12:LEU:HA	1.87	0.42
27:BD:246:PRO:O	27:BD:254:THR:HG22	2.19	0.42
32:BI:42:SER:O	32:BI:45:LYS:HB2	2.19	0.42
47:D1:58:ILE:HD11	47:D1:60:PHE:CE2	2.54	0.42
1:AA:639:G:O2'	1:AA:640:A:H5'	2.19	0.42
33:BN:21:LYS:NZ	33:BN:140:VAL:H	2.16	0.42
25:DA:2292:C:H4'	25:DA:2375:G:H4'	2.01	0.42
45:BZ:75:ASN:O	45:BZ:84:GLU:HB2	2.20	0.42
1:AA:1492:A:O3'	1:AA:1493:A:H2'	2.19	0.42
39:BT:29:ARG:HG3	39:BT:46:GLU:HB2	2.01	0.42
1:CA:1468:A:H2'	1:CA:1469:G:O4'	2.19	0.42
28:BE:108:SER:O	28:BE:162:ALA:HA	2.19	0.42
25:DA:543:C:C2	25:DA:551:G:N2	2.87	0.42
1:CA:866:C:C4	1:CA:867:G:H1'	2.55	0.42
22:AY:11:PRO:O	22:AY:13:GLY:N	2.52	0.42
35:BP:16:ARG:NH1	58:BP:303:HOH:O	2.52	0.42
33:BN:107:LEU:HD23	33:BN:107:LEU:HA	1.69	0.42
27:BD:133:LEU:HD23	27:BD:133:LEU:HA	1.86	0.42
33:DN:59:LYS:HD3	33:DN:59:LYS:HA	1.85	0.42
35:BP:125:VAL:HG23	35:BP:125:VAL:O	2.18	0.42
40:BU:28:ARG:HG2	40:BU:28:ARG:HH11	1.83	0.42
25:BA:2508:G:H2'	25:BA:2509:G:H8	1.85	0.42
2:AB:71:VAL:HG13	2:AB:93:VAL:CG2	2.49	0.42
25:DA:1359:A:N1	25:DA:1372:U:O4	2.52	0.42
25:DA:1952:A:OP1	34:DO:44:LYS:HE2	2.19	0.42
25:DA:926:A:C8	58:DA:4231:HOH:O	2.71	0.42
25:DA:2311:A:H3'	25:DA:2312:U:C6	2.54	0.42
1:AA:373:A:N3	1:AA:374:A:C8	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1050:A:H2'	25:BA:1051:G:O4'	2.19	0.42
25:BA:2463:C:O2'	25:BA:2464:C:H5'	2.19	0.42
2:CB:170:GLU:O	2:CB:173:ALA:N	2.50	0.42
33:BN:22:THR:HB	33:BN:25:ARG:HB2	2.01	0.42
1:CA:881:G:P	12:CL:12:ARG:NH2	2.92	0.42
1:AA:625:G:C4	1:AA:626:U:C5	3.08	0.42
25:DA:1654:A:C1'	25:DA:2823:A:H5'	2.48	0.42
27:BD:26:LYS:HD3	27:BD:83:GLU:OE1	2.19	0.42
5:AE:83:GLU:HB3	5:AE:88:LYS:CB	2.48	0.42
25:DA:2324:C:H5''	25:DA:2325:G:C5'	2.49	0.42
32:DI:128:LEU:HD12	32:DI:142:VAL:HG21	2.02	0.42
1:AA:232:G:H1'	1:AA:262:A:N1	2.34	0.42
1:CA:625:G:H4'	16:CP:16:HIS:CD2	2.55	0.42
25:DA:902:C:H2'	25:DA:903:C:H6	1.84	0.42
25:DA:902:C:H2'	25:DA:903:C:C6	2.54	0.42
26:DB:11:C:OP2	26:DB:12:C:H5	2.03	0.42
25:BA:2766:G:N3	25:BA:2766:G:H2'	2.35	0.42
31:DH:12:PRO:O	31:DH:15:VAL:HG12	2.20	0.42
6:AF:2:ARG:NE	6:AF:69:GLU:HG2	2.34	0.42
1:AA:618:C:H3'	1:AA:619:U:C5'	2.49	0.42
7:CG:65:ALA:O	7:CG:69:VAL:HG23	2.18	0.42
8:CH:48:TYR:HA	8:CH:60:ARG:O	2.20	0.42
11:AK:27:ASN:OD1	11:AK:28:THR:N	2.50	0.42
3:AC:156:ARG:O	3:AC:159:GLY:N	2.25	0.42
25:BA:1406:U:H2'	25:BA:1407:C:C6	2.55	0.42
15:CO:30:ALA:HA	15:CO:85:LEU:HD21	2.01	0.42
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.54	0.42
12:AL:40:VAL:HG21	12:AL:78:GLN:HA	2.01	0.42
52:D6:25:LYS:HE3	52:D6:30:THR:O	2.18	0.42
1:AA:189(B):C:C2	1:AA:189(J):G:C2	3.07	0.42
23:AV:21:A:O2'	23:AV:22:G:OP2	2.32	0.42
15:CO:4:THR:N	15:CO:7:GLU:OE2	2.46	0.42
17:CQ:18:THR:HG22	17:CQ:19:VAL:N	2.34	0.42
41:DV:8:GLY:O	41:DV:10:LYS:HE2	2.20	0.42
27:BD:77:ALA:HB2	27:BD:97:TYR:HA	2.02	0.42
25:DA:2546:U:H4'	25:DA:2566:A:H2	1.84	0.42
25:DA:438:G:H2'	25:DA:440:G:H8	1.85	0.42
29:DF:150:GLY:HA2	29:DF:172:TRP:CE3	2.54	0.42
33:DN:14:VAL:HG13	33:DN:138:LEU:HB2	2.00	0.42
25:BA:2880:C:O3'	37:BR:90:ARG:NH1	2.51	0.42
25:DA:204:A:OP1	25:DA:204:A:H8	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:46:LYS:HB3	8:CH:46:LYS:HE2	1.75	0.42
44:BY:90:LEU:HD12	44:BY:90:LEU:HA	1.72	0.42
25:BA:1885:A:H2'	25:BA:1886:C:O4'	2.18	0.42
1:CA:66:G:H2'	1:CA:66:G:N3	2.34	0.42
28:BE:9:VAL:HG13	28:BE:25:VAL:O	2.19	0.42
49:D3:21:ALA:O	49:D3:24:LYS:N	2.50	0.42
37:BR:22:ARG:O	37:BR:26:LYS:HG3	2.19	0.42
25:DA:2340:G:H2'	25:DA:2341:G:H8	1.84	0.42
6:CF:49:ALA:HB2	18:CR:78:LEU:O	2.19	0.42
26:DB:31:C:O2'	26:DB:32:C:H5'	2.19	0.42
26:DB:32:C:C2	26:DB:51:G:N2	2.87	0.42
22:AY:16:GLU:O	22:AY:40:ARG:HA	2.19	0.42
47:B1:4:VAL:O	47:B1:46:LEU:HD11	2.19	0.42
35:DP:45:LEU:HD23	35:DP:45:LEU:HA	1.56	0.42
19:AS:41:VAL:O	19:AS:44:MET:HB2	2.20	0.42
1:CA:404:U:H5''	4:CD:122:ARG:HD3	2.01	0.42
1:AA:59:A:H1'	1:AA:354:G:N2	2.35	0.42
33:DN:37:LYS:HA	33:DN:42:TRP:CD1	2.55	0.42
9:CI:11:LYS:HE3	9:CI:11:LYS:HB2	1.72	0.42
25:BA:2467:C:O2'	25:BA:2468:G:H5'	2.19	0.42
1:CA:1080:A:H5''	1:CA:1081:G:OP2	2.19	0.42
4:CD:200:GLU:O	4:CD:204:ILE:HG12	2.20	0.42
30:BG:139:LEU:HA	30:BG:144:ILE:HG22	2.00	0.42
26:DB:110:G:H2'	26:DB:111:G:C8	2.54	0.42
1:CA:353:A:C8	1:CA:353:A:H5'	2.47	0.42
25:DA:1404:C:N3	25:DA:1405:U:C5	2.88	0.42
26:BB:11:C:P	26:BB:12:C:H5	2.43	0.42
39:DT:80:SER:HA	39:DT:81:PRO:HD2	1.81	0.42
28:BE:119:ARG:HG2	28:BE:160:TYR:HB2	2.02	0.42
5:AE:17:ALA:HA	5:AE:26:PHE:HA	2.02	0.42
39:DT:117:ASP:OD2	39:DT:120:ARG:NE	2.52	0.42
30:BG:47:LYS:HB3	30:BG:48:GLU:H	1.57	0.42
1:CA:303:A:O2'	1:CA:555:C:H4'	2.20	0.42
8:CH:112:LEU:HB3	8:CH:133:LEU:HA	2.00	0.42
1:AA:872:A:C8	1:AA:874:G:C8	3.07	0.42
37:BR:79:LEU:HA	37:BR:83:ILE:HD12	2.01	0.42
11:CK:38:ASN:HA	11:CK:39:PRO:HD3	1.92	0.42
25:DA:221:A:C4	25:DA:266:G:N7	2.87	0.42
4:AD:88:VAL:HG13	5:AE:97:GLY:HA2	2.00	0.42
25:DA:560:C:O2	40:DU:49:HIS:NE2	2.52	0.42
23:CV:22:G:O5'	23:CV:22:G:H8	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DH:52:VAL:O	31:DH:65:HIS:NE2	2.48	0.42
25:DA:2543:G:C1'	25:DA:2766:G:H5'	2.50	0.42
25:BA:236:C:H2'	25:BA:237:C:H6	1.83	0.42
25:BA:1705:G:C5	25:BA:1706:U:C4	3.08	0.42
17:CQ:45:HIS:CD2	17:CQ:47:PRO:HG3	2.54	0.42
1:CA:119:A:H4'	1:CA:120:A:O5'	2.19	0.42
25:DA:524:U:H2'	25:DA:525:U:C6	2.55	0.42
25:DA:1023:U:O2'	25:DA:1122:G:H5'	2.20	0.42
1:CA:601:C:C2	1:CA:638:G:N2	2.87	0.42
25:BA:715:G:H2'	25:BA:716:A:O4'	2.19	0.42
44:BY:54:LYS:O	44:BY:55:TYR:CD1	2.73	0.42
1:CA:346:G:H2'	1:CA:347:G:O4'	2.20	0.42
25:BA:1547:C:H2'	25:BA:1548:C:C6	2.54	0.42
1:CA:112:G:H21	1:CA:354:G:C4'	2.33	0.42
25:BA:1550:C:H2'	25:BA:1551:C:H6	1.84	0.42
1:CA:451:A:N7	1:CA:481:G:C6	2.87	0.42
25:BA:1753:G:OP1	39:BT:95:ARG:HD3	2.19	0.42
48:B2:36:ARG:O	48:B2:39:ALA:N	2.53	0.42
8:CH:121:ASP:O	8:CH:125:ARG:HG3	2.19	0.42
25:DA:2749:A:H1'	31:DH:63:SER:HB3	2.02	0.42
32:DI:7:GLU:HB3	32:DI:8:PRO:HD2	2.01	0.42
5:AE:60:TYR:CD1	5:AE:60:TYR:C	2.92	0.42
14:CN:4:LYS:HZ2	14:CN:4:LYS:HA	1.85	0.42
35:DP:68:GLN:OE1	35:DP:68:GLN:HA	2.19	0.42
25:DA:1678:G:H2'	25:DA:1679:U:H5'	2.01	0.42
2:CB:77:ALA:O	2:CB:81:VAL:HG23	2.18	0.42
25:BA:18:C:O3'	40:BU:23:GLY:HA2	2.19	0.42
27:DD:179:SER:O	27:DD:275:LYS:HD3	2.19	0.42
25:BA:2820:A:N3	25:BA:2820:A:H2'	2.33	0.42
25:DA:271(Q):G:O2'	25:DA:271(R):G:P	2.78	0.42
46:B0:23:VAL:HA	46:B0:38:VAL:HG13	2.00	0.42
27:DD:206:LEU:HD23	27:DD:206:LEU:HA	1.43	0.42
22:AY:35:THR:HG22	22:AY:36:ALA:N	2.34	0.42
25:DA:862:G:H2'	25:DA:863:A:O4'	2.19	0.42
25:DA:925:C:H2'	25:DA:926:A:O4'	2.20	0.42
26:BB:8:U:O3'	38:BS:25:ARG:NH2	2.52	0.42
1:CA:149:A:O2'	1:CA:150:C:O4'	2.38	0.42
1:AA:343:U:C1'	1:AA:344:A:OP1	2.67	0.42
2:CB:215:LEU:HA	2:CB:215:LEU:HD23	1.65	0.42
2:CB:95:GLN:HG3	2:CB:147:LYS:O	2.19	0.42
1:AA:185:A:H2'	1:AA:186:C:H6	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BQ:109:VAL:HG22	36:BQ:113:GLN:OE1	2.18	0.42
36:DQ:41:TRP:HB3	36:DQ:94:VAL:HB	2.00	0.42
30:BG:135:LEU:O	30:BG:154:GLY:HA3	2.20	0.42
34:BO:44:LYS:HD3	34:BO:44:LYS:HA	1.79	0.42
25:DA:1900:A:N1	25:DA:1970:A:C6	2.87	0.42
25:BA:1279:G:O2'	25:BA:1280:G:H5'	2.19	0.42
45:BZ:39:VAL:HG23	45:BZ:40:ASP:O	2.20	0.42
25:DA:2303:G:H2'	25:DA:2304:G:H8	1.84	0.42
25:DA:2303:G:O2'	25:DA:2304:G:H5'	2.19	0.42
8:AH:114:THR:OG1	8:AH:115:SER:N	2.53	0.42
25:DA:2328:A:H2'	25:DA:2329:G:C8	2.54	0.42
35:DP:100:LEU:HD23	35:DP:100:LEU:HA	1.70	0.42
25:DA:1688:U:H1'	25:DA:1701:A:C6	2.55	0.42
25:DA:271(U):G:H2'	25:DA:271(V):G:C8	2.50	0.42
25:BA:412:A:H2'	25:BA:413:C:H5'	2.01	0.42
4:CD:67:ILE:HG22	4:CD:68:TYR:CD1	2.55	0.42
1:CA:433:C:O2'	1:CA:434:U:H5'	2.20	0.42
1:CA:948:C:OP2	13:CM:108:ARG:HB2	2.19	0.42
1:AA:16:A:C2'	1:AA:17:U:H5'	2.49	0.42
1:AA:631:G:H2'	1:AA:632:A:C8	2.54	0.42
49:D3:8:LEU:HD13	49:D3:31:LEU:CD2	2.50	0.42
8:CH:49:GLU:HG2	8:CH:62:TYR:HE2	1.85	0.42
25:BA:1996:C:H4'	25:BA:1997:G:OP1	2.20	0.42
1:CA:406:G:N3	4:CD:119:GLN:NE2	2.68	0.42
1:CA:1269:A:H2	1:CA:1312:G:H21	1.67	0.42
40:DU:72:HIS:HE2	40:DU:107:ALA:CB	2.32	0.42
25:BA:234:C:H2'	25:BA:235:U:H6	1.84	0.42
25:BA:589:C:H2'	25:BA:590:A:C8	2.54	0.42
25:BA:668:G:H2'	25:BA:670:A:H62	1.85	0.42
25:BA:298:G:H1'	25:BA:340:A:H61	1.85	0.42
25:BA:434:U:H4'	58:BA:4020:HOH:O	2.19	0.42
49:B3:12:PRO:O	49:B3:15:TYR:HB2	2.19	0.42
28:DE:179:GLU:HB3	28:DE:181:LEU:CD2	2.50	0.42
46:B0:19:LYS:HD3	46:B0:19:LYS:HA	1.56	0.42
30:DG:178:PHE:HA	30:DG:179:PRO:HD3	1.73	0.42
5:AE:148:VAL:HG13	5:AE:152:ARG:CZ	2.50	0.42
2:AB:236:TYR:HB3	2:AB:237:ALA:H	1.56	0.42
25:DA:757:U:H2'	25:DA:758:C:O4'	2.20	0.42
5:AE:8:GLU:HB2	5:AE:34:VAL:HG23	2.01	0.42
25:BA:2323:G:C6	25:BA:2324:C:C4	3.07	0.42
39:BT:107:ASP:O	39:BT:111:ARG:HG3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:105:G:H2'	1:CA:106:C:C6	2.55	0.42
25:BA:597:U:H2'	25:BA:598:G:C8	2.55	0.42
30:DG:86:MET:HA	30:DG:87:PRO:HD3	1.78	0.42
25:DA:104:U:H6	25:DA:104:U:O5'	2.02	0.42
34:DO:29:ASN:N	34:DO:29:ASN:OD1	2.52	0.42
20:CT:13:LEU:H	20:CT:13:LEU:HG	1.53	0.42
26:BB:1:U:O2	26:BB:1:U:H2'	2.20	0.42
25:BA:2545:G:H2'	25:BA:2546:U:O4'	2.19	0.42
25:BA:2359:C:H2'	25:BA:2360:A:O4'	2.20	0.42
38:DS:76:LYS:O	38:DS:80:LEU:HD13	2.19	0.42
25:DA:1195:G:N7	35:DP:15:ARG:NH1	2.68	0.42
45:BZ:126:VAL:HG11	45:BZ:161:VAL:HG23	2.01	0.42
38:BS:35:ILE:HD11	38:BS:101:LEU:HD12	2.02	0.42
1:AA:1399:C:C2	1:AA:1502:A:N6	2.87	0.42
1:CA:563:A:C8	1:CA:567:G:H1'	2.55	0.42
13:CM:64:TRP:CE3	13:CM:64:TRP:N	2.86	0.42
31:DH:3:ARG:HH11	31:DH:3:ARG:HG3	1.84	0.42
25:BA:2787:C:O3'	28:BE:61:ARG:HD3	2.19	0.42
38:DS:96:GLY:N	38:DS:99:LYS:HB3	2.34	0.42
1:AA:342:C:C2	1:AA:348:G:C2	3.08	0.42
1:CA:1151:A:N3	10:CJ:39:PRO:HG3	2.34	0.42
29:DF:184:TYR:O	29:DF:187:VAL:N	2.53	0.42
25:BA:271(L):U:C4'	25:BA:271(M):G:OP1	2.66	0.42
25:BA:1176:G:C4'	25:BA:1177:A:OP1	2.67	0.42
1:CA:1179:A:O3'	9:CI:103:THR:HB	2.20	0.42
27:BD:131:LEU:N	27:BD:131:LEU:HD12	2.34	0.42
25:BA:1142(A):A:C4	25:BA:1144:G:N7	2.88	0.42
1:CA:540:G:H2'	1:CA:541:G:O4'	2.20	0.42
25:DA:2815:C:H2'	25:DA:2816:C:C6	2.55	0.42
1:AA:406:G:N3	4:AD:119:GLN:NE2	2.68	0.42
1:CA:981:U:H2'	1:CA:982:U:C5	2.55	0.42
45:BZ:67:LEU:HD12	45:BZ:90:VAL:HG11	2.01	0.42
25:DA:1204:A:H61	25:DA:1240:U:H2'	1.84	0.42
25:BA:455:C:N3	25:BA:473:G:H5'	2.34	0.42
8:AH:114:THR:HB	8:AH:130:GLY:O	2.19	0.42
30:BG:37:VAL:HG23	30:BG:99:MET:HG3	2.02	0.42
35:DP:83:VAL:HG21	35:DP:100:LEU:HD11	2.01	0.42
25:BA:271(F):C:H2'	25:BA:271(G):C:C6	2.49	0.42
2:AB:21:ARG:HB2	2:AB:38:GLY:O	2.20	0.42
25:DA:90:U:HO2'	25:DA:92:A:H8	1.59	0.42
25:DA:990:A:H1'	25:DA:1156:A:N3	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1693:U:H4'	25:BA:1694:C:OP2	2.19	0.42
25:DA:2464:C:C2	25:DA:2487:G:N2	2.87	0.42
30:DG:73:ALA:HA	30:DG:88:ILE:HD11	2.00	0.42
25:DA:1827:C:H2'	25:DA:1828:G:O4'	2.18	0.42
28:DE:200:GLU:HG3	28:DE:201:THR:N	2.34	0.42
17:CQ:5:VAL:O	17:CQ:6:LEU:HD13	2.20	0.42
23:CV:73:A:H5''	23:CV:74:C:O5'	2.20	0.42
25:DA:29:U:H2'	25:DA:30:G:C8	2.54	0.42
25:BA:296:C:H2'	25:BA:297:C:H6	1.85	0.42
37:BR:117:VAL:HG12	37:BR:118:GLU:O	2.19	0.42
25:BA:2564:A:OP1	25:BA:2648:C:H4'	2.19	0.42
33:DN:96:GLU:HB2	33:DN:122:VAL:HG12	2.02	0.42
1:AA:1493:A:OP2	12:AL:47:LYS:NZ	2.36	0.42
1:CA:617:G:H4'	16:CP:44:THR:O	2.18	0.42
25:BA:2582:G:OP2	58:BA:5169:HOH:O	2.21	0.42
30:BG:161:THR:HG23	30:BG:172:LEU:HD23	2.00	0.42
25:DA:764:A:O4'	27:DD:213:ARG:HG3	2.20	0.42
25:DA:2342:C:O2'	25:DA:2374:C:H5''	2.19	0.42
40:BU:29:SER:HB2	58:BU:301:HOH:O	2.20	0.42
32:BI:66:GLU:HA	32:BI:69:LYS:HB3	2.02	0.42
35:DP:101:VAL:HA	35:DP:106:LEU:O	2.20	0.42
1:AA:769:G:H4'	1:AA:1513:A:H4'	2.01	0.42
32:BI:133:HIS:ND1	32:BI:134:PRO:O	2.51	0.42
48:B2:3:LEU:HA	48:B2:3:LEU:HD23	1.82	0.42
25:BA:988:A:O5'	25:BA:988:A:H8	2.01	0.42
1:CA:160:A:O5'	1:CA:160:A:H8	2.03	0.42
49:B3:37:LEU:HD23	49:B3:37:LEU:HA	1.70	0.42
25:DA:2057:A:H2'	25:DA:2058:A:O4'	2.19	0.42
42:BW:57:ASN:O	42:BW:61:ASN:HB2	2.20	0.42
26:DB:104:U:OP2	58:DB:317:HOH:O	2.21	0.42
5:AE:11:ILE:HD11	5:AE:108:ALA:HB3	2.02	0.42
27:DD:44:ASN:OD1	27:DD:46:GLN:HG3	2.20	0.42
25:DA:885:C:N4	25:DA:890:A:C6	2.47	0.42
27:DD:274:ARG:CB	27:DD:275:LYS:HB3	2.49	0.42
1:AA:374:A:C6	1:AA:375:U:C4	3.08	0.42
25:BA:271(L):U:H4'	25:BA:271(M):G:OP1	2.19	0.42
9:CI:14:VAL:O	9:CI:65:VAL:HG23	2.19	0.42
13:CM:90:LEU:C	13:CM:92:HIS:H	2.23	0.42
2:CB:100:GLY:C	2:CB:108:ILE:HG13	2.40	0.42
27:BD:13:ARG:HA	27:BD:16:MET:HE3	2.01	0.42
1:AA:627:G:O2'	1:AA:628:G:H5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1101:A:C4	2:CB:99:GLY:HA3	2.55	0.42
46:B0:54:GLY:O	46:B0:57:PHE:N	2.39	0.42
48:D2:48:HIS:O	48:D2:52:ASP:HB2	2.19	0.42
1:CA:590:C:H2'	1:CA:591:U:H6	1.84	0.42
25:DA:990:A:C6	25:DA:1186:G:H1'	2.55	0.42
27:DD:108:PRO:HB3	27:DD:143:HIS:HE1	1.82	0.42
1:AA:300:A:H2'	1:AA:301:G:O4'	2.20	0.42
25:DA:66:C:H2'	25:DA:67:U:C6	2.52	0.42
25:DA:2320:A:H1'	25:DA:2321:G:C6	2.55	0.42
9:CI:99:LEU:HB3	9:CI:101:PHE:CD1	2.55	0.42
1:AA:570:G:H1'	1:AA:820:U:C4	2.55	0.42
5:AE:68:GLU:HG2	5:AE:70:PRO:HG3	2.02	0.42
1:CA:494:U:O5'	1:CA:494:U:H6	2.02	0.42
2:CB:42:ILE:HG22	2:CB:43:ASP:N	2.34	0.42
25:BA:34:C:O2	25:BA:34:C:H2'	2.18	0.42
25:BA:459:U:OP2	53:B7:39:ARG:NH1	2.53	0.42
7:AG:140:ASP:OD1	7:AG:143:ARG:NH2	2.53	0.42
25:BA:183:C:H1'	25:BA:433:C:H1'	2.01	0.42
1:AA:668:G:O2'	15:AO:46:HIS:HB3	2.20	0.42
1:AA:841:U:H5	1:AA:848:C:O2	2.03	0.42
1:CA:1154:G:C4	1:CA:1155:G:C8	3.07	0.42
31:BH:40:GLU:OE1	31:BH:61:HIS:NE2	2.44	0.42
25:BA:536:A:H2'	25:BA:537:C:C6	2.55	0.42
6:CF:55:ASP:OD1	6:CF:56:PRO:HD2	2.20	0.42
25:DA:1011:G:C4	25:DA:1151:G:N2	2.88	0.42
33:DN:55:VAL:CG2	33:DN:126:PRO:HA	2.50	0.42
25:BA:2815:C:H5'	51:B5:29:THR:HG21	2.00	0.42
25:DA:2742:C:OP1	55:D9:35:ARG:HD3	2.20	0.42
19:CS:41:VAL:HA	19:CS:42:PRO:HD3	1.92	0.42
52:D6:33:LYS:HE3	52:D6:51:GLU:HG2	2.01	0.42
25:DA:469:G:H2'	25:DA:470:A:H5''	2.00	0.42
14:CN:9:LYS:HE3	14:CN:9:LYS:HB3	1.90	0.42
2:AB:172:ILE:H	2:AB:172:ILE:HG13	1.52	0.42
5:CE:60:TYR:C	5:CE:60:TYR:CD1	2.92	0.42
25:BA:1126:A:OP1	25:BA:1126:A:H8	2.03	0.42
25:BA:1252:G:C2	25:BA:1253:A:C2	3.08	0.42
1:CA:1370:G:N7	9:CI:109:VAL:HG11	2.34	0.42
2:AB:162:ILE:HD12	2:AB:164:VAL:CG2	2.50	0.42
1:AA:1368:G:OP1	10:AJ:62:HIS:HE1	2.03	0.42
25:BA:2277:G:H2'	25:BA:2278:A:O5'	2.20	0.42
45:BZ:128:VAL:HG23	45:BZ:161:VAL:H	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AY:23:GLN:HB3	22:AY:75:GLN:NE2	2.35	0.42
30:DG:129:GLY:O	30:DG:161:THR:HB	2.19	0.42
25:DA:1528:A:C6	25:DA:1528(A):A:C6	3.08	0.42
1:AA:1143:G:H2'	1:AA:1144:G:H8	1.84	0.42
1:AA:1143:G:H8	1:AA:1143:G:O5'	2.03	0.42
1:AA:1399:C:H4'	1:AA:1400:C:O5'	2.19	0.42
25:DA:2577:A:H5''	25:DA:2578:G:C5'	2.48	0.42
8:AH:21:LYS:O	8:AH:63:LEU:HD21	2.20	0.42
1:AA:674:G:N2	1:AA:717:C:O2	2.53	0.42
1:CA:1013:G:N2	1:CA:1016:A:OP2	2.48	0.42
30:BG:111:LEU:HD23	30:BG:111:LEU:HA	1.86	0.42
25:DA:2816:C:O2	25:DA:2883:A:O2'	2.38	0.42
1:AA:655:A:C2	1:AA:656:C:C2	3.08	0.42
25:DA:1614:A:C2	42:DW:93:ALA:HB2	2.55	0.42
25:DA:2279:G:O6	46:D0:14:ARG:HG3	2.20	0.42
7:AG:90:GLU:CD	7:AG:90:GLU:H	2.23	0.42
1:CA:473:G:H2'	1:CA:474:G:C8	2.48	0.42
45:DZ:129:SER:O	45:DZ:133:ILE:HG23	2.19	0.42
45:DZ:159:PRO:HA	45:DZ:160:GLY:HA2	1.82	0.42
37:BR:33:ARG:HD3	37:BR:115:GLU:OE2	2.20	0.42
28:DE:13:ARG:O	39:DT:57:PHE:HE1	2.03	0.42
30:BG:82:LEU:HB3	30:BG:86:MET:CB	2.50	0.42
31:DH:149:ARG:HA	31:DH:162:ILE:CG2	2.50	0.42
30:DG:107:LEU:HD13	30:DG:177:GLY:O	2.20	0.42
25:DA:2522:U:O2'	25:DA:2647:U:OP1	2.20	0.42
2:CB:127:ILE:C	2:CB:129:GLU:H	2.21	0.42
45:DZ:28:MET:O	45:DZ:35:ARG:N	2.45	0.42
1:AA:443:C:H2'	1:AA:444:C:H6	1.85	0.42
1:AA:109:A:H2'	1:AA:326:G:H21	1.82	0.42
7:CG:58:PRO:HA	7:CG:61:VAL:CG1	2.50	0.42
9:AI:49:PRO:HA	9:AI:52:ALA:HB3	2.02	0.42
15:AO:87:ILE:CG2	15:AO:88:ARG:N	2.82	0.42
25:BA:1164:G:H2'	25:BA:1165:U:C6	2.55	0.42
23:CV:49:G:O6	23:CV:65:C:N4	2.53	0.42
16:AP:23:ASP:O	16:AP:26:ARG:HB2	2.20	0.42
1:CA:1381:U:H2'	1:CA:1382:C:H5'	2.02	0.42
1:CA:391:G:C6	1:CA:392:G:C5	3.08	0.42
45:DZ:166:SER:HA	45:DZ:167:PRO:HD3	1.80	0.42
25:DA:2400:G:C5	25:DA:2401:U:C5	3.08	0.42
25:DA:2401:U:H3'	25:DA:2402:C:H6	1.85	0.42
28:BE:50:GLY:HA2	28:BE:77:ILE:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:119:A:H3'	58:AA:2057:HOH:O	2.18	0.42
48:D2:45:SER:O	48:D2:46:GLN:CB	2.68	0.42
25:BA:1472:A:H2'	25:BA:1473:G:C8	2.55	0.42
47:B1:67:ILE:N	47:B1:68:PRO:HD2	2.35	0.42
29:BF:68:LYS:HE3	29:BF:68:LYS:HB3	1.60	0.42
1:CA:1427:U:H2'	1:CA:1428:A:H8	1.83	0.42
29:DF:107:LYS:HE2	29:DF:205:ARG:O	2.19	0.42
25:BA:2648:C:H2'	25:BA:2649:U:C6	2.54	0.42
37:DR:37:THR:HA	37:DR:111:LEU:HD12	2.02	0.42
25:DA:2355:C:O3'	46:D0:24:LYS:HE3	2.20	0.42
1:CA:617:G:C2	1:CA:618:C:C5	3.08	0.42
42:DW:43:GLY:O	42:DW:47:VAL:HG23	2.20	0.42
25:BA:263:C:H2'	25:BA:264:C:O4'	2.20	0.42
1:CA:612:C:H2'	1:CA:613:C:C6	2.55	0.42
2:AB:189:ASP:OD1	2:AB:205:ASP:HB3	2.18	0.42
5:CE:142:LEU:O	5:CE:143:ARG:NE	2.42	0.42
25:BA:914:C:H2'	25:BA:915:C:H5'	2.02	0.42
12:AL:38:THR:OG1	12:AL:39:VAL:N	2.52	0.42
51:D5:46:CYS:CB	51:D5:49:CYS:SG	3.02	0.42
45:DZ:10:ARG:NE	45:DZ:37:VAL:O	2.50	0.42
41:BV:14:VAL:HB	41:BV:96:ILE:HG13	2.02	0.42
41:BV:16:PRO:HA	41:BV:96:ILE:HG22	2.01	0.42
7:CG:115:ARG:O	7:CG:118:VAL:HG23	2.20	0.42
1:CA:1465:C:H2'	1:CA:1466:C:O4'	2.19	0.42
3:CC:22:TRP:HB3	3:CC:59:ARG:HB2	2.01	0.42
25:BA:573:G:O2'	25:BA:574:C:H3'	2.20	0.42
25:DA:2010:G:H5''	42:DW:42:ARG:HB2	2.02	0.42
28:DE:134:ILE:O	28:DE:137:HIS:HB2	2.20	0.42
15:AO:4:THR:OG1	15:AO:5:LYS:N	2.53	0.42
25:BA:775:G:C4	25:BA:794:G:C8	3.08	0.42
45:BZ:151:HIS:C	45:BZ:153:SER:H	2.23	0.42
47:D1:61:ARG:HE	47:D1:61:ARG:HB3	1.65	0.42
25:DA:545:G:OP1	25:DA:545:G:H4'	2.20	0.42
1:CA:1401:G:C2	1:CA:1402:C:H1'	2.55	0.42
25:BA:957:A:N6	25:BA:2459:A:C8	2.87	0.42
25:BA:749:C:C5	25:BA:1618:A:C6	3.08	0.42
1:AA:149:A:N3	1:AA:150:C:C5	2.88	0.42
25:BA:103:A:H8	25:BA:103:A:O5'	2.03	0.42
1:AA:736:C:H2'	1:AA:737:A:H8	1.80	0.42
38:DS:21:THR:HG23	38:DS:23:ARG:HB2	2.02	0.42
25:BA:1043:C:C4	25:BA:1044:G:C8	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:9:ARG:HB2	9:AI:104:ARG:HE	1.85	0.42
1:AA:160:A:C6	1:AA:161:A:C5	3.08	0.42
25:DA:1639:U:H4'	25:DA:2699:C:H4'	2.02	0.42
25:DA:1469:A:H2'	25:DA:1470:G:O4'	2.19	0.42
1:AA:1123:A:H4'	10:AJ:36:GLY:HA3	2.02	0.42
1:AA:933:G:OP2	7:AG:3:ARG:HB2	2.19	0.42
25:BA:2846:G:H2'	25:BA:2847:U:O4'	2.20	0.42
2:CB:105:PHE:HA	2:CB:108:ILE:HB	2.02	0.42
1:AA:1108:G:C5	1:AA:1109:C:C5	3.08	0.42
25:DA:2557:G:H2'	25:DA:2558:C:H6	1.84	0.42
3:AC:182:ILE:HG12	3:AC:203:PHE:CD1	2.48	0.42
25:DA:2262:U:H2'	25:DA:2263:C:H6	1.85	0.42
25:DA:2080:G:C2'	25:DA:2081:C:H5'	2.50	0.42
1:CA:1327:C:H2'	1:CA:1328:C:C6	2.55	0.42
25:DA:1788:C:H2'	25:DA:1789:A:O4'	2.19	0.42
1:CA:1170:A:N6	1:CA:1171:G:C2	2.87	0.42
41:BV:21:ARG:HG3	41:BV:91:TYR:CD1	2.55	0.42
25:BA:2590:A:H2'	25:BA:2591:C:C6	2.55	0.42
34:BO:89:ASN:O	34:BO:91:LEU:HD23	2.20	0.42
25:DA:52:A:OP2	25:DA:117:G:N1	2.41	0.42
25:BA:2747:G:O6	25:BA:2755:C:H5''	2.20	0.42
1:CA:1219:U:O2'	19:CS:34:TRP:HB3	2.20	0.42
11:AK:108:ILE:CG2	18:AR:87:ARG:HD2	2.50	0.42
25:BA:2224:G:H4'	25:BA:2226:C:O2	2.20	0.42
1:CA:1241:G:H2'	1:CA:1242:C:C6	2.54	0.42
25:DA:1579:A:H5'	25:DA:1579:A:H8	1.84	0.42
49:B3:23:LEU:HA	49:B3:23:LEU:HD12	1.69	0.42
9:CI:45:ALA:HB1	9:CI:48:GLU:N	2.35	0.42
27:DD:52:ARG:HB2	27:DD:53:PHE:CE2	2.55	0.42
19:AS:33:THR:HG23	19:AS:51:VAL:HA	2.02	0.42
25:BA:588:U:O4	25:BA:670:A:H1'	2.18	0.42
30:DG:120:LEU:HB2	30:DG:180:PHE:CD2	2.55	0.42
25:BA:1813:G:H1'	27:BD:50:THR:OG1	2.20	0.42
29:BF:101:LEU:O	29:BF:106:ARG:HD3	2.20	0.42
32:DI:79:ILE:HG22	32:DI:81:VAL:HG13	2.00	0.42
1:AA:1459:C:H2'	1:AA:1460:A:O4'	2.20	0.42
25:DA:1033:U:OP1	55:D9:9:ARG:NH2	2.52	0.42
46:D0:84:LEU:HG	46:D0:85:ALA:H	1.85	0.42
42:DW:1:MET:HG3	42:DW:2:GLU:N	2.35	0.42
35:BP:82:GLY:HA2	35:BP:113:LYS:O	2.20	0.42
37:DR:11:ASN:ND2	58:DR:303:HOH:O	2.42	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AY:27:GLY:N	25:BA:2584:U:O2'	2.51	0.42
43:DX:40:LYS:HG3	43:DX:51:VAL:HB	2.02	0.42
25:DA:2288:A:H4'	25:DA:2289:G:OP2	2.20	0.42
25:BA:1500:G:C6	25:BA:1501:C:C4	3.07	0.42
1:AA:128:G:O2'	17:AQ:3:LYS:NZ	2.44	0.42
25:BA:1766:U:H2'	25:BA:1767:C:H6	1.84	0.42
1:AA:948:C:OP1	13:AM:109:THR:OG1	2.38	0.42
46:D0:39:ARG:HD3	46:D0:58:THR:OG1	2.20	0.42
19:AS:37:ARG:H	19:AS:37:ARG:HG3	1.33	0.42
25:BA:1171:G:H5''	25:BA:1171:G:H8	1.85	0.42
33:DN:133:GLN:H	33:DN:133:GLN:HG2	1.59	0.42
28:DE:94:GLU:HA	28:DE:94:GLU:OE1	2.20	0.42
49:B3:3:ARG:HH11	49:B3:60:GLU:CB	2.32	0.42
33:BN:12:ARG:NH1	33:BN:50:ASP:OD2	2.52	0.42
1:AA:532:A:H2'	1:AA:533:A:OP1	2.20	0.42
1:CA:1502:A:H5'	1:CA:1504:G:N7	2.35	0.41
9:CI:17:VAL:HG21	9:CI:80:GLY:O	2.20	0.41
1:AA:1399:C:H4'	1:AA:1400:C:H5''	2.00	0.41
25:DA:676:A:H2	25:DA:802:A:H61	1.68	0.41
36:BQ:64:ILE:HG13	45:BZ:178:GLU:HG3	2.01	0.41
25:DA:134:C:N4	25:DA:145:G:H1	2.12	0.41
29:DF:40:GLN:OE1	29:DF:183:VAL:HG13	2.20	0.41
37:DR:48:VAL:O	37:DR:51:LEU:HB2	2.19	0.41
1:CA:401:C:OP2	4:CD:73:ARG:NH1	2.53	0.41
1:AA:717:C:H6	1:AA:717:C:H5''	1.86	0.41
25:DA:2820:A:P	37:DR:2:ARG:HH21	2.43	0.41
1:AA:655:A:C2	1:AA:754:C:N4	2.88	0.41
44:DY:40:GLU:O	44:DY:42:VAL:HG23	2.20	0.41
1:CA:473:G:C5	1:CA:474:G:N7	2.88	0.41
39:DT:26:ASP:CG	39:DT:120:ARG:HH22	2.23	0.41
25:BA:655:A:H2'	25:BA:656:G:O4'	2.20	0.41
25:DA:1223:G:C6	25:DA:1227:G:C6	3.07	0.41
27:BD:8:PRO:HB3	27:BD:14:ARG:CB	2.49	0.41
1:CA:32:A:H2'	1:CA:32:A:N3	2.34	0.41
25:DA:977:G:C4	25:DA:978:G:C8	3.07	0.41
16:CP:52:ASP:OD2	16:CP:55:ARG:N	2.26	0.41
25:DA:2463:C:O2'	25:DA:2464:C:H5'	2.20	0.41
31:BH:7:LEU:HG	31:BH:69:ARG:HH12	1.84	0.41
34:DO:122:LEU:HA	34:DO:122:LEU:HD23	1.54	0.41
25:BA:2701:C:H2'	25:BA:2702:U:H2'	2.02	0.41
1:AA:544:G:OP2	4:AD:66:ARG:NH2	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:411:A:C8	1:AA:413:G:C8	3.08	0.41
25:BA:734:A:C5	25:BA:735:A:C8	3.08	0.41
4:CD:170:VAL:HG13	4:CD:174:LEU:O	2.20	0.41
1:CA:1192:C:N4	1:CA:1193:G:C4	2.88	0.41
1:AA:258:G:H2'	1:AA:259:G:C8	2.54	0.41
25:BA:1509(A):A:H2'	25:BA:1509(B):A:O4'	2.19	0.41
25:DA:1296:G:O2'	25:DA:1297:C:H5'	2.20	0.41
40:DU:112:ARG:O	40:DU:115:ALA:HB3	2.20	0.41
27:BD:228:PRO:HD3	27:BD:235:GLY:CA	2.50	0.41
3:AC:172:ARG:HB3	3:AC:174:PRO:HD3	2.01	0.41
8:AH:64:LYS:CB	8:AH:79:VAL:HG21	2.49	0.41
25:DA:1525:G:C2	25:DA:1526:G:C4	3.08	0.41
1:CA:1288:A:H2'	1:CA:1289:A:C8	2.55	0.41
45:BZ:138:GLU:HG2	45:BZ:156:LYS:HE3	2.02	0.41
1:CA:930:C:C4	1:CA:931:C:C5	3.08	0.41
32:DI:25:TYR:HD2	32:DI:25:TYR:HA	1.68	0.41
12:AL:52:LEU:HD13	12:AL:52:LEU:HA	1.94	0.41
25:DA:2236:C:H2'	25:DA:2237:G:H5'	2.01	0.41
22:AY:2:ILE:HG13	22:AY:12:ASP:HA	2.00	0.41
47:B1:7:ILE:HG23	47:B1:98:LEU:HD11	2.02	0.41
1:AA:975:A:H8	1:AA:975:A:H5'	1.83	0.41
25:DA:1798:U:OP2	27:DD:274:ARG:NH2	2.53	0.41
25:DA:910:A:N3	25:DA:2264:C:O2'	2.47	0.41
25:DA:805:G:H4'	35:DP:38:GLN:HB3	2.02	0.41
1:AA:1131:G:H1	1:AA:1143:G:N2	2.11	0.41
50:B4:18:CYS:SG	50:B4:39:CYS:CB	2.96	0.41
16:AP:49:LEU:HA	16:AP:49:LEU:HD13	1.72	0.41
10:CJ:35:SER:CB	10:CJ:73:ASP:HB2	2.41	0.41
1:AA:953:G:H2'	1:AA:954:G:O4'	2.20	0.41
25:DA:192:C:H2'	25:DA:193:U:H5'	2.01	0.41
25:BA:784:A:C5	27:BD:229:VAL:HG21	2.55	0.41
49:D3:28:LEU:HD21	49:D3:35:ARG:HB2	2.02	0.41
1:AA:357:G:C2	1:AA:358:U:C5	3.09	0.41
43:DX:31:HIS:O	43:DX:34:ALA:HB3	2.20	0.41
7:CG:18:TYR:CD2	7:CG:59:LEU:HD22	2.51	0.41
25:DA:320:A:H4'	25:DA:322:A:C8	2.55	0.41
1:AA:599:C:H5''	8:AH:95:VAL:O	2.19	0.41
27:DD:240:ALA:HB1	27:DD:241:PRO:HD2	2.02	0.41
15:CO:87:ILE:CG2	15:CO:88:ARG:N	2.83	0.41
23:CV:18:G:C4	23:CV:58:A:C2	3.08	0.41
1:AA:377:G:OP1	16:AP:3:LYS:HD2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DT:33:LYS:HE3	39:DT:82:LEU:HA	2.03	0.41
1:AA:194:C:H2'	1:AA:195:A:H5''	2.02	0.41
1:AA:129(A):G:C2	1:AA:189(H):G:C8	3.09	0.41
13:CM:69:GLU:OE1	13:CM:73:GLU:N	2.53	0.41
1:AA:67:C:H2'	1:AA:68:G:H8	1.84	0.41
25:DA:977:G:N3	25:DA:978:G:C8	2.88	0.41
17:AQ:45:HIS:O	17:AQ:73:VAL:HG23	2.19	0.41
25:BA:1582:C:H2'	25:BA:1583:A:H8	1.84	0.41
4:AD:204:ILE:O	4:AD:207:TYR:N	2.49	0.41
1:CA:722:A:H2'	1:CA:724:G:C8	2.56	0.41
47:D1:64:ALA:HA	47:D1:67:ILE:HD12	2.02	0.41
45:DZ:99:TYR:HA	45:DZ:124:ILE:O	2.20	0.41
25:DA:1025:G:C4	25:DA:1135:C:H1'	2.55	0.41
47:D1:86:SER:O	47:D1:89:GLU:HG2	2.20	0.41
25:DA:686:G:N7	53:D7:5:TRP:CH2	2.88	0.41
31:BH:35:VAL:O	31:BH:37:VAL:HG23	2.20	0.41
25:BA:11:G:H2'	25:BA:12:U:H5'	2.02	0.41
5:CE:69:VAL:HG22	5:CE:69:VAL:O	2.20	0.41
26:BB:33:G:C2	26:BB:50:G:C2	3.08	0.41
25:BA:271(P):C:OP1	32:BI:45:LYS:HD3	2.20	0.41
27:DD:77:ALA:O	27:DD:116:GLN:HG3	2.21	0.41
25:DA:2730:C:H4'	28:DE:168:MET:O	2.20	0.41
9:AI:83:ARG:HA	9:AI:86:VAL:HG22	2.02	0.41
29:DF:124:LEU:HB3	29:DF:193:VAL:HG22	2.02	0.41
25:BA:1991:U:H2'	25:BA:1992:G:H5''	2.02	0.41
1:AA:244:U:C6	1:AA:894:G:N2	2.88	0.41
1:AA:127:G:N2	17:AQ:61:GLU:OE1	2.50	0.41
9:AI:3:GLN:OE1	9:AI:20:ARG:NH2	2.53	0.41
1:CA:616:G:H5''	58:CA:1925:HOH:O	2.19	0.41
25:BA:365:C:H2'	25:BA:366:C:O4'	2.20	0.41
37:DR:12:ARG:HD3	37:DR:16:HIS:CD2	2.55	0.41
34:BO:60:ALA:HB1	34:BO:84:ALA:HB1	2.02	0.41
1:AA:576:G:OP1	58:AA:2251:HOH:O	2.22	0.41
17:AQ:84:LEU:O	17:AQ:87:LYS:HB2	2.20	0.41
10:AJ:40:LEU:HB2	10:AJ:69:ASN:HB2	2.01	0.41
21:CU:5:ASP:O	21:CU:11:GLY:HA3	2.20	0.41
25:DA:1168:G:C2	25:DA:1182:A:C2	3.08	0.41
37:DR:42:LYS:HG2	37:DR:45:ARG:NH2	2.34	0.41
7:AG:15:ASP:O	7:AG:19:GLY:HA2	2.20	0.41
25:DA:1643:G:H2'	25:DA:1644:C:H6	1.85	0.41
15:AO:57:LEU:HA	15:AO:57:LEU:HD23	1.80	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:D1:40:ARG:HB2	47:D1:40:ARG:HE	1.59	0.41
48:B2:4:SER:HA	48:B2:7:ARG:HG3	2.01	0.41
37:BR:29:LEU:HA	37:BR:29:LEU:HD12	1.84	0.41
14:AN:44:LEU:HD12	14:AN:44:LEU:C	2.40	0.41
1:AA:1332:A:C2	1:AA:1333:A:C4	3.08	0.41
1:CA:255:G:H1'	17:CQ:16:GLN:OE1	2.20	0.41
25:BA:2030:A:H4'	25:BA:2031:A:C8	2.55	0.41
1:CA:922:G:H2'	1:CA:923:A:H8	1.84	0.41
1:CA:1092:A:C5	1:CA:1183:A:N7	2.88	0.41
38:DS:110:LEU:HD12	38:DS:110:LEU:HA	1.71	0.41
25:BA:2376:A:H2'	25:BA:2377:A:O4'	2.20	0.41
26:DB:46:A:C5	26:DB:47:C:C4	3.08	0.41
1:AA:923:A:C2	1:AA:924:C:C2	3.08	0.41
1:AA:1315:U:H2'	1:AA:1316:G:O4'	2.19	0.41
49:D3:23:LEU:HD22	49:D3:50:VAL:HG11	2.02	0.41
1:AA:186:C:C2	1:AA:187:C:C5	3.08	0.41
1:AA:652:U:C2	1:AA:752:G:N2	2.88	0.41
1:CA:1077:G:C2	1:CA:1081:G:C6	3.08	0.41
1:AA:458:C:N4	1:AA:474:G:N1	2.68	0.41
46:D0:65:GLY:CA	46:D0:81:VAL:HG12	2.47	0.41
25:BA:2364:C:H2'	25:BA:2365:G:O4'	2.19	0.41
40:DU:62:ILE:HG12	40:DU:76:TYR:CE1	2.56	0.41
5:AE:15:ARG:HD2	5:AE:26:PHE:CD2	2.54	0.41
1:AA:1221:G:H4'	19:AS:77:THR:CG2	2.50	0.41
1:AA:713:G:H2'	1:AA:714:G:C8	2.55	0.41
32:DI:120:ILE:HG21	32:DI:126:TYR:CE1	2.56	0.41
25:DA:1328:G:H2'	25:DA:1330:C:C5	2.55	0.41
25:BA:2542:A:H4'	25:BA:2543:G:H8	1.85	0.41
25:DA:1915:U:H5'	25:DA:1916:A:OP2	2.20	0.41
1:AA:109:A:C6	1:AA:326:G:C6	3.07	0.41
39:BT:15:VAL:HG12	39:BT:16:ARG:H	1.84	0.41
10:AJ:55:LYS:NZ	10:AJ:56:HIS:CE1	2.88	0.41
30:BG:16:ARG:O	30:BG:20:ILE:HG13	2.20	0.41
54:B8:29:LYS:HZ2	54:B8:45:GLY:HA2	1.85	0.41
25:DA:873:G:N2	25:DA:905:U:C2	2.89	0.41
4:AD:15:GLU:OE1	4:AD:63:LYS:N	2.54	0.41
12:AL:66:VAL:HG11	12:AL:98:TYR:CE1	2.55	0.41
24:AX:2:A:H2'	24:AX:3:A:C8	2.54	0.41
25:BA:2662:A:H2'	25:BA:2663:G:O4'	2.20	0.41
7:CG:48:LYS:O	7:CG:52:GLU:HG2	2.21	0.41
25:DA:1416:G:O2'	25:DA:1417:C:H5	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DW:4:LYS:NZ	42:DW:6:ILE:HD11	2.35	0.41
3:CC:149:ALA:HA	3:CC:201:TYR:O	2.19	0.41
32:BI:2:LYS:HG2	32:BI:20:ASP:OD1	2.20	0.41
45:DZ:8:TYR:HB2	45:DZ:38:TYR:CE2	2.55	0.41
25:BA:2687:U:H2'	25:BA:2688:U:O4'	2.21	0.41
28:DE:78:LEU:O	28:DE:79:ARG:HG2	2.20	0.41
47:B1:5:CYS:CB	47:B1:8:SER:HG	2.31	0.41
25:BA:2082:A:H2'	25:BA:2083:G:O4'	2.20	0.41
7:CG:101:LEU:HD13	7:CG:101:LEU:HA	1.87	0.41
47:B1:23:LYS:HE3	47:B1:23:LYS:HB2	1.92	0.41
30:BG:167:GLU:CD	30:BG:167:GLU:H	2.22	0.41
1:AA:521:G:O6	1:AA:529:G:C2	2.73	0.41
16:CP:9:PHE:CD2	16:CP:18:ARG:HG3	2.55	0.41
25:BA:898:C:H2'	25:BA:899:A:O4'	2.20	0.41
30:DG:11:TYR:OH	30:DG:16:ARG:HD3	2.21	0.41
26:DB:55:U:H4'	30:DG:28:VAL:HG13	2.02	0.41
1:AA:1374:A:C4	1:AA:1375:A:C8	3.08	0.41
25:BA:2286:A:H3'	52:B6:30:THR:HG21	2.03	0.41
1:AA:1392:G:O2'	1:AA:1393:U:H5'	2.20	0.41
29:BF:39:TRP:CE2	29:BF:43:LYS:HD3	2.55	0.41
25:BA:1108:U:O2'	25:BA:1109:C:C6	2.74	0.41
40:BU:65:ILE:CD1	40:BU:95:LEU:HB3	2.51	0.41
25:DA:548:A:N7	41:DV:19:LYS:HD2	2.36	0.41
2:CB:102:LEU:HB2	2:CB:176:GLU:HB3	2.03	0.41
18:AR:58:LEU:HD12	18:AR:58:LEU:HA	1.85	0.41
1:CA:1015:A:O5'	1:CA:1015:A:H8	2.03	0.41
1:AA:1240:U:P	7:AG:116:ALA:HB2	2.60	0.41
48:B2:51:ARG:HH11	48:B2:55:ARG:NH2	2.17	0.41
16:CP:51:VAL:HG12	16:CP:53:VAL:H	1.84	0.41
46:B0:56:ASP:O	46:B0:57:PHE:HB2	2.20	0.41
30:BG:37:VAL:O	30:BG:94:LEU:HB2	2.20	0.41
2:AB:158:LEU:HA	2:AB:159:PRO:HD3	1.81	0.41
25:DA:2445:G:OP1	29:DF:74:ARG:NH2	2.54	0.41
1:CA:533:A:O2'	1:CA:535:A:OP2	2.26	0.41
1:CA:1107:C:N4	1:CA:1108:G:N7	2.67	0.41
12:AL:83:VAL:CG1	12:AL:100:ILE:HG12	2.49	0.41
29:BF:22:ALA:HB1	29:BF:24:LEU:HD22	2.02	0.41
12:AL:102:ARG:HE	12:AL:102:ARG:HB3	1.79	0.41
28:DE:28:ALA:HB3	28:DE:93:VAL:HG13	2.02	0.41
25:DA:2405:G:HO2'	25:DA:2406:U:P	2.44	0.41
1:AA:131:C:O2	1:AA:231:G:N2	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:101:MET:HE3	2:AB:108:ILE:HG21	2.01	0.41
1:AA:1508:G:H2'	1:AA:1509:C:C6	2.56	0.41
25:DA:1580:A:OP2	25:DA:1580:A:H8	2.04	0.41
6:AF:4:TYR:HA	6:AF:91:VAL:O	2.21	0.41
30:BG:124:SER:HB2	30:BG:131:TYR:CE1	2.55	0.41
1:CA:475:G:H2'	1:CA:476:G:C8	2.55	0.41
1:AA:1084:G:OP1	1:AA:1086:U:C4	2.73	0.41
36:DQ:32:TYR:CE2	36:DQ:133:ARG:CG	3.03	0.41
25:DA:2470:G:C2	25:DA:2471:C:C6	3.08	0.41
22:AY:57:LEU:HD23	22:AY:57:LEU:HA	1.88	0.41
35:DP:125:VAL:HG23	35:DP:125:VAL:O	2.19	0.41
32:DI:41:GLU:H	32:DI:41:GLU:CD	2.24	0.41
25:DA:839:U:H3	25:DA:939:G:H1	1.68	0.41
43:BX:8:ILE:O	48:B2:36:ARG:NH2	2.54	0.41
1:CA:929:G:C6	1:CA:930:C:C4	3.08	0.41
1:AA:649:G:C4	1:AA:650:G:C8	3.08	0.41
39:DT:61:PHE:CE2	39:DT:76:PHE:HB2	2.55	0.41
29:BF:60:SER:OG	29:BF:61:GLY:N	2.53	0.41
10:CJ:5:ARG:N	10:CJ:74:ILE:H	2.19	0.41
1:CA:1076:C:C2	1:CA:1082:G:N2	2.89	0.41
25:BA:1272:A:OP1	58:BA:4875:HOH:O	2.22	0.41
35:DP:93:GLY:O	35:DP:123:LEU:HD22	2.20	0.41
25:DA:836:G:C5	25:DA:837:C:C4	3.08	0.41
22:AY:6:ARG:H	22:AY:6:ARG:HG3	1.57	0.41
41:BV:85:LYS:HB2	41:BV:85:LYS:NZ	2.35	0.41
30:BG:103:LEU:HD23	30:BG:103:LEU:HA	1.76	0.41
5:CE:139:LEU:HA	5:CE:139:LEU:HD23	1.81	0.41
3:CC:178:LEU:HD13	3:CC:178:LEU:HA	1.78	0.41
45:DZ:70:LEU:HA	45:DZ:70:LEU:HD23	1.75	0.41
16:CP:12:LYS:C	16:CP:14:ASN:H	2.24	0.41
27:BD:127:VAL:HA	27:BD:193:VAL:HG22	2.03	0.41
11:AK:66:LEU:HD21	11:AK:97:ALA:HB1	2.03	0.41
25:BA:16:G:C2	25:BA:17:G:C8	3.08	0.41
6:CF:41:GLU:HG2	6:CF:43:LEU:CD1	2.51	0.41
30:DG:16:ARG:HA	30:DG:16:ARG:HD2	1.75	0.41
2:AB:69:LEU:HD12	2:AB:70:PHE:N	2.36	0.41
32:DI:104:GLN:HG2	32:DI:105:HIS:CE1	2.55	0.41
25:DA:249:C:O2	54:D8:12:LYS:NZ	2.43	0.41
33:DN:27:ALA:HA	33:DN:30:ILE:HD12	2.02	0.41
25:DA:863:A:O2'	25:DA:864:G:H5'	2.20	0.41
1:AA:390:C:H2'	1:AA:391:G:C8	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:107:ARG:HH11	9:CI:107:ARG:CG	2.26	0.41
1:AA:831:U:O2'	1:AA:832:C:H5'	2.21	0.41
31:DH:44:VAL:HB	31:DH:51:ARG:O	2.21	0.41
1:CA:338:A:H2'	1:CA:339:C:C6	2.56	0.41
1:CA:1292:U:C2	1:CA:1293:G:C8	3.08	0.41
45:DZ:156:LYS:HE3	45:DZ:156:LYS:HB3	1.88	0.41
30:BG:43:LEU:HD12	30:BG:43:LEU:HA	1.70	0.41
29:DF:34:TRP:CE3	29:DF:35:GLU:HG2	2.56	0.41
25:DA:1431:U:H2'	25:DA:1432:C:C6	2.56	0.41
25:BA:973:A:O4'	25:BA:1188:U:C6	2.73	0.41
48:B2:17:SER:OG	48:B2:20:GLU:HG3	2.20	0.41
1:CA:1309:G:C6	1:CA:1329:A:C2	3.08	0.41
25:BA:515:A:H1'	25:BA:581:C:H1'	2.02	0.41
15:AO:67:LEU:HD22	15:AO:78:TYR:HE1	1.85	0.41
25:DA:1224:C:O5'	25:DA:1224:C:H6	2.03	0.41
1:AA:667:G:H4'	15:AO:51:HIS:ND1	2.34	0.41
4:CD:74:GLN:O	4:CD:78:LEU:HD13	2.20	0.41
20:CT:36:LEU:HA	20:CT:36:LEU:HD13	1.83	0.41
25:BA:1582:C:C2	25:BA:1583:A:C8	3.09	0.41
29:BF:11:VAL:HG22	29:BF:125:LEU:HB2	2.02	0.41
33:DN:93:THR:HB	33:DN:94:HIS:ND1	2.35	0.41
25:BA:2267:A:H5''	25:BA:2268:A:H5'	2.03	0.41
11:AK:103:LEU:HA	11:AK:103:LEU:HD23	1.86	0.41
34:DO:97:ARG:HA	34:DO:117:LEU:HD22	2.02	0.41
1:AA:189(F):U:C4	17:AQ:72:ARG:NH2	2.83	0.41
25:BA:996:A:H4'	40:BU:91:ASP:OD1	2.20	0.41
20:CT:51:GLU:HG2	20:CT:54:LYS:HD3	2.03	0.41
25:DA:686:G:H21	25:DA:788:A:H61	1.67	0.41
25:BA:2808:U:H2'	25:BA:2809:A:C5'	2.51	0.41
1:AA:258:G:N3	1:AA:259:G:C8	2.88	0.41
29:BF:103:LYS:HA	29:BF:106:ARG:HG3	2.03	0.41
25:BA:272(B):G:H2'	25:BA:272(C):G:C8	2.55	0.41
1:CA:557:G:C6	1:CA:558:G:N1	2.88	0.41
50:D4:40:HIS:HB3	50:D4:43:TYR:CD1	2.55	0.41
25:DA:1778:U:H2'	25:DA:1784:A:N6	2.36	0.41
25:DA:1462:C:H2'	25:DA:1463:C:O4'	2.21	0.41
27:BD:227:ASN:O	27:BD:230:ASP:HB2	2.21	0.41
7:CG:56:GLN:HB2	7:CG:57:GLU:H	1.64	0.41
30:BG:121:ASN:HA	30:BG:122:PRO:HD3	1.68	0.41
1:AA:1186:G:H21	14:AN:61:TRP:C	2.24	0.41
19:AS:61:TYR:O	19:AS:66:MET:HE3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:25:THR:OG1	27:BD:81:ALA:HB1	2.20	0.41
25:DA:271(E):U:H3	25:DA:271(S):G:H1	1.69	0.41
25:BA:190:A:N3	25:BA:679:C:O2'	2.48	0.41
1:AA:1404:C:H2'	1:AA:1405:G:C8	2.55	0.41
40:BU:52:ARG:HA	40:BU:55:ARG:HG3	2.01	0.41
28:BE:188:VAL:HG13	28:BE:189:PRO:HD2	2.02	0.41
30:BG:39:ILE:H	30:BG:39:ILE:HG13	1.66	0.41
12:CL:93:LEU:HA	12:CL:93:LEU:HD23	1.75	0.41
45:BZ:28:MET:O	45:BZ:34:ASN:HA	2.20	0.41
1:CA:1323:G:H4'	1:CA:1363:C:C2	2.56	0.41
25:DA:1210:A:H5''	25:DA:1212:G:C5'	2.49	0.41
1:AA:148:G:N2	1:AA:175:C:C2	2.88	0.41
14:AN:24:CYS:SG	14:AN:39:LEU:HA	2.60	0.41
25:BA:751:A:C6	25:BA:789:A:C5	3.09	0.41
8:CH:63:LEU:HD23	8:CH:65:TYR:OH	2.21	0.41
2:CB:88:ALA:HB1	2:CB:222:ILE:HG21	2.02	0.41
33:DN:58:ASP:OD1	33:DN:124:ALA:HA	2.20	0.41
25:BA:1142(A):A:C5	25:BA:1144:G:C5	3.08	0.41
1:CA:620:C:H2'	1:CA:621:A:O4'	2.20	0.41
25:DA:2041:U:H2'	25:DA:2042:A:C8	2.55	0.41
1:CA:509:A:C6	1:CA:510:A:N1	2.87	0.41
1:AA:204:U:H4'	1:AA:216:G:O5'	2.21	0.41
8:CH:7:ALA:HB2	8:CH:85:ARG:HD2	2.03	0.41
1:CA:1330:U:H4'	13:CM:23:TYR:CE2	2.55	0.41
28:DE:36:ARG:HG2	28:DE:47:VAL:HG22	2.02	0.41
25:BA:2543:G:C1'	25:BA:2766:G:H5'	2.49	0.41
14:AN:4:LYS:O	14:AN:7:ILE:HG22	2.21	0.41
2:AB:114:ARG:NH1	2:AB:118:LEU:HD21	2.34	0.41
1:CA:604:G:C6	1:CA:635:G:C6	3.09	0.41
5:AE:122:GLU:O	5:AE:123:LEU:HG	2.21	0.41
11:CK:80:VAL:HG23	11:CK:105:VAL:H	1.85	0.41
25:BA:548:A:H61	41:BV:19:LYS:H	1.68	0.41
29:BF:157:VAL:HA	29:BF:176:LEU:O	2.20	0.41
25:BA:1931:U:H2'	25:BA:1932:A:H8	1.85	0.41
42:BW:68:ARG:HD3	42:BW:111:HIS:HA	2.02	0.41
43:BX:92:LEU:C	43:BX:94:GLY:H	2.24	0.41
25:BA:2708:G:H1'	37:BR:71:GLN:HE22	1.85	0.41
45:BZ:72:ARG:NH2	45:BZ:97:GLU:O	2.53	0.41
25:DA:2505:G:O2'	25:DA:2506:U:H5''	2.21	0.41
2:AB:170:GLU:O	2:AB:173:ALA:N	2.47	0.41
1:CA:723:U:O2'	1:CA:724:G:P	2.79	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:57:C:H6	25:DA:57:C:O5'	2.04	0.41
29:BF:117:ARG:HA	29:BF:117:ARG:HD3	1.79	0.41
1:AA:142:G:H2'	1:AA:143:A:H8	1.85	0.41
25:BA:2784:C:H1'	28:BE:37:ARG:NH1	2.35	0.41
25:DA:1796:U:H4'	27:DD:256:GLY:N	2.34	0.41
4:CD:110:PHE:N	4:CD:110:PHE:HD1	2.18	0.41
26:DB:76:G:H2'	26:DB:77:U:O4'	2.20	0.41
1:CA:936:C:C4	1:CA:937:A:C5	3.08	0.41
50:D4:42:PHE:HB3	50:D4:43:TYR:HB2	2.02	0.41
9:AI:7:THR:O	9:AI:83:ARG:HD2	2.21	0.41
25:DA:2236:C:C2'	25:DA:2237:G:H5'	2.51	0.41
26:DB:80:U:H2'	26:DB:81:G:C8	2.56	0.41
26:BB:15:A:O4'	26:BB:110:G:C8	2.74	0.41
41:DV:62:LEU:HD11	41:DV:95:LEU:HB2	2.03	0.41
30:BG:67:LYS:HA	30:BG:68:PRO:HD3	1.87	0.41
2:AB:20:GLU:HB2	2:AB:190:THR:OG1	2.20	0.41
25:BA:1199:U:H2'	25:BA:1200:C:C6	2.55	0.41
7:CG:72:ARG:HG2	7:CG:142:GLU:OE2	2.21	0.41
25:BA:1844:C:H2'	25:BA:1845:G:H8	1.85	0.41
1:CA:375:U:OP1	16:CP:69:THR:HG21	2.20	0.41
4:AD:50:ARG:HA	4:AD:51:PRO:HD3	1.93	0.41
27:DD:37:LEU:HD12	27:DD:37:LEU:HA	1.71	0.41
28:BE:117:MET:H	28:BE:117:MET:HG2	1.50	0.41
27:BD:82:ILE:HD12	27:BD:82:ILE:HG23	1.72	0.41
45:BZ:133:ILE:HG13	45:BZ:133:ILE:H	1.45	0.41
28:BE:178:GLU:H	28:BE:178:GLU:CD	2.22	0.41
25:BA:1605:C:P	58:BA:5261:HOH:O	2.78	0.41
33:BN:99:LEU:O	33:BN:103:VAL:HG23	2.21	0.41
1:AA:945:G:N1	1:AA:1337:G:C2	2.89	0.41
1:AA:1178:G:N2	1:AA:1181:G:C8	2.88	0.41
25:DA:629:G:H1'	25:DA:639:U:O2'	2.20	0.41
45:BZ:160:GLY:CA	45:BZ:161:VAL:HG12	2.41	0.41
2:CB:69:LEU:HD12	2:CB:70:PHE:H	1.86	0.41
17:AQ:15:MET:HG3	17:AQ:15:MET:H	1.62	0.41
1:AA:392:G:H2'	1:AA:393:A:H8	1.85	0.41
1:CA:403:C:O2'	1:CA:404:U:H5'	2.20	0.41
32:BI:79:ILE:HB	32:BI:144:VAL:HA	2.03	0.41
41:DV:89:GLN:HA	41:DV:90:PRO:HD2	1.79	0.41
2:CB:100:GLY:HA3	2:CB:104:ASN:HB3	2.03	0.41
1:CA:1144:G:H22	1:CA:1146:A:H62	1.68	0.41
25:BA:2466:C:O2'	25:BA:2467:C:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:99:GLY:O	5:CE:117:ASP:HA	2.21	0.41
1:CA:511:C:HO2'	1:CA:512:U:H6	1.65	0.41
37:BR:36:THR:O	37:BR:111:LEU:HD12	2.21	0.41
25:BA:2405:G:H2'	25:BA:2411:A:N6	2.35	0.41
25:BA:2657:A:O2'	31:BH:160:LYS:HE3	2.21	0.41
25:BA:69:C:H2'	25:BA:70:G:C8	2.55	0.41
5:CE:126:ARG:NH1	5:CE:126:ARG:CG	2.81	0.41
25:BA:1803:A:H4'	27:BD:259:THR:HG22	2.01	0.41
33:DN:128:HIS:CG	33:DN:128:HIS:O	2.73	0.41
25:BA:2314:C:H2'	25:BA:2315:G:H8	1.86	0.41
4:CD:74:GLN:NE2	4:CD:137:SER:HB3	2.36	0.41
1:AA:105:G:H2'	1:AA:106:C:H6	1.83	0.41
4:CD:10:ARG:CB	4:CD:40:PRO:HG3	2.49	0.41
54:D8:33:ASN:HA	54:D8:36:LYS:HG3	2.02	0.41
28:BE:2:LYS:HG3	28:BE:200:GLU:HB3	2.01	0.41
49:D3:4:LEU:HD22	49:D3:56:VAL:HG11	2.02	0.41
1:AA:1126:U:H6	1:AA:1280:A:C5	2.39	0.41
1:CA:792:A:N3	1:CA:794:A:C5	2.89	0.41
41:DV:21:ARG:HD2	41:DV:93:GLU:HG3	2.03	0.41
25:BA:2572:A:N7	28:BE:145:LYS:HB2	2.35	0.41
25:DA:1296:G:H2'	25:DA:1297:C:H6	1.86	0.41
7:CG:145:ALA:C	7:CG:147:ALA:H	2.24	0.41
1:CA:25:C:O2'	1:CA:26:A:H5'	2.21	0.41
1:CA:451:A:C5	1:CA:481:G:C6	3.09	0.41
25:DA:2363:C:O2	46:D0:39:ARG:NH2	2.46	0.41
19:AS:66:MET:HG3	19:AS:66:MET:H	1.57	0.41
25:BA:189:G:H2'	25:BA:205:G:N2	2.36	0.41
32:DI:98:ALA:CB	32:DI:111:PRO:HG3	2.51	0.41
25:BA:900:A:C4	25:BA:901:A:C8	3.08	0.41
20:AT:32:ALA:O	20:AT:35:THR:HG22	2.20	0.41
44:DY:30:VAL:HG22	44:DY:37:VAL:HG12	2.03	0.41
7:AG:9:VAL:HG13	7:AG:94:ARG:NH1	2.35	0.41
25:BA:2864:G:H2'	25:BA:2865:U:O4'	2.21	0.41
8:CH:42:GLU:HG3	8:CH:109:ILE:HD13	2.02	0.41
5:CE:144:THR:HG22	5:CE:146:ALA:H	1.85	0.41
31:BH:89:ILE:HB	31:BH:129:THR:HG22	2.02	0.41
1:AA:135:C:O2	16:AP:1:MET:HB3	2.21	0.41
3:CC:180:ALA:HB1	3:CC:203:PHE:HE1	1.86	0.41
1:CA:579:G:C5	1:CA:580:U:C4	3.08	0.41
1:CA:719:C:N4	18:CR:71:LYS:HE2	2.35	0.41
1:AA:797:C:O2'	1:AA:798:G:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:272(A):U:H6	25:BA:272(A):U:H5'	1.86	0.41
6:AF:19:LEU:O	6:AF:19:LEU:HD23	2.21	0.41
36:DQ:58:PHE:N	36:DQ:58:PHE:CD2	2.88	0.41
45:BZ:18:LEU:O	45:BZ:21:ALA:N	2.48	0.41
27:BD:118:VAL:HG22	27:BD:119:ALA:N	2.36	0.41
8:CH:96:GLY:H	8:CH:99:GLU:CD	2.24	0.41
25:DA:1452:A:O2'	25:DA:2702:U:O4	2.28	0.41
25:DA:315:G:H2'	25:DA:316:C:O4'	2.20	0.41
1:CA:1368:G:H2'	1:CA:1369:C:C6	2.56	0.41
6:CF:22:GLU:O	6:CF:26:ILE:HG13	2.21	0.41
1:CA:1367:C:H5''	9:CI:114:TYR:HA	2.02	0.41
25:BA:2328:A:H2'	25:BA:2329:G:O4'	2.20	0.41
25:BA:2788:C:N4	25:BA:2789:C:N4	2.69	0.41
3:CC:111:LEU:HD12	3:CC:111:LEU:N	2.35	0.41
1:CA:129(A):G:C2	1:CA:189(H):G:C8	3.09	0.41
25:BA:1141:U:OP1	33:BN:25:ARG:NH1	2.54	0.41
58:AA:2208:HOH:O	20:AT:103:GLY:HA2	2.20	0.41
25:DA:847:U:C3'	25:DA:848:G:H5'	2.51	0.41
18:AR:63:GLN:O	18:AR:66:LEU:HB3	2.21	0.41
25:DA:528:A:H8	25:DA:528:A:H3'	1.84	0.41
25:BA:422:A:H2'	25:BA:423:A:O4'	2.21	0.41
45:BZ:43:GLU:O	45:BZ:46:LYS:HB2	2.20	0.41
1:AA:436:C:O2'	1:AA:437:U:OP2	2.34	0.41
25:BA:963:U:OP1	58:BA:5218:HOH:O	2.21	0.41
25:DA:2689:U:H4'	25:DA:2690:C:H5'	2.02	0.41
1:AA:266:G:H8	1:AA:266:G:H2'	1.60	0.41
1:AA:881:G:H2'	1:AA:882:C:O4'	2.21	0.41
45:DZ:128:VAL:HG22	45:DZ:132:ASN:O	2.21	0.41
1:CA:65:U:C5	1:CA:381:C:N4	2.89	0.41
25:BA:1329:U:H5''	25:BA:1330:C:C5	2.52	0.41
1:CA:175:C:H2'	1:CA:176:C:H6	1.86	0.41
25:DA:2834:G:C5	25:DA:2879:C:C4	3.09	0.41
1:CA:202:U:O2'	1:CA:203:U:O5'	2.27	0.41
1:AA:70:G:H2'	1:AA:71:C:H6	1.81	0.41
10:CJ:55:LYS:HG2	10:CJ:56:HIS:N	2.36	0.41
25:BA:109:G:H2'	25:BA:110:G:O4'	2.20	0.41
25:DA:2345:G:N3	25:DA:2381:C:H2'	2.36	0.41
1:CA:1203:C:H2'	1:CA:1204:A:O4'	2.21	0.41
1:AA:1184:G:C8	1:AA:1184:G:OP1	2.73	0.41
1:CA:791:G:H2'	1:CA:792:A:H5'	2.02	0.41
25:DA:1341:U:OP2	25:DA:1394:U:O2'	2.23	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:376:C:H2'	25:BA:377:C:H6	1.85	0.41
1:AA:581:G:N2	1:AA:582:U:C4	2.89	0.41
25:BA:1509(A):A:C5	25:BA:1509(B):A:C8	3.09	0.41
25:BA:1268:A:H2'	25:BA:1269:A:O4'	2.20	0.41
25:DA:1163:G:C2	25:DA:1164:G:C8	3.09	0.41
25:BA:2648:C:H2'	25:BA:2649:U:H6	1.86	0.41
1:AA:202:U:H3'	1:AA:203:U:C5	2.56	0.41
46:B0:51:VAL:CG2	46:B0:81:VAL:HG23	2.51	0.41
25:DA:870:A:C2	25:DA:908:C:C2	3.09	0.41
25:BA:460:A:H2'	25:BA:461:C:O4'	2.21	0.41
17:CQ:10:VAL:HG22	17:CQ:19:VAL:HG21	2.02	0.41
27:DD:44:ASN:ND2	27:DD:46:GLN:HG3	2.36	0.41
5:CE:78:HIS:NE2	5:CE:142:LEU:HD23	2.35	0.41
51:D5:46:CYS:HB3	51:D5:49:CYS:SG	2.61	0.41
11:CK:61:ALA:CB	11:CK:90:GLY:HA3	2.51	0.41
34:DO:45:GLU:HG2	34:DO:46:ALA:N	2.36	0.41
29:BF:36:VAL:HG11	29:BF:183:VAL:CG1	2.50	0.41
14:AN:14:PRO:HB2	14:AN:16:PHE:H	1.85	0.41
25:DA:1991:U:H2'	25:DA:1992:G:H5''	2.02	0.41
1:CA:1194:U:H2'	1:CA:1195:C:C6	2.55	0.41
30:DG:60:LEU:HD12	30:DG:68:PRO:HG3	2.01	0.41
37:DR:55:ALA:HA	37:DR:80:PHE:CE1	2.56	0.41
25:BA:2340:G:H2'	25:BA:2341:G:C8	2.56	0.41
37:DR:60:LEU:HD23	37:DR:60:LEU:HA	1.67	0.41
36:BQ:118:LEU:HA	36:BQ:118:LEU:HD23	1.89	0.41
38:DS:32:LEU:HD23	38:DS:32:LEU:HA	1.83	0.41
40:BU:105:VAL:H	40:BU:105:VAL:HG23	1.63	0.41
30:DG:41:GLN:NE2	30:DG:153:ARG:HG2	2.36	0.41
25:DA:746:A:H2'	25:DA:2612:C:H5''	2.02	0.41
25:DA:2619:C:H4'	28:DE:151:TYR:O	2.20	0.41
1:CA:1322:C:H6	1:CA:1322:C:OP1	2.04	0.41
25:BA:910:A:N1	25:BA:2277:G:H1'	2.36	0.41
33:DN:34:LEU:HD12	33:DN:34:LEU:HA	1.66	0.41
25:DA:862:G:H4'	26:DB:79:C:H5'	2.03	0.41
2:AB:207:ALA:O	2:AB:211:ILE:HD12	2.21	0.41
7:AG:51:GLN:HG2	7:AG:55:GLY:CA	2.50	0.41
25:BA:2561:A:H2'	25:BA:2562:U:O4'	2.20	0.41
25:BA:2377:A:H2'	25:BA:2378:A:C8	2.55	0.41
25:BA:2378:A:C5	25:BA:2379:G:H1'	2.56	0.41
34:DO:44:LYS:HD2	34:DO:44:LYS:HA	1.92	0.41
22:AY:48:LEU:HA	22:AY:49:PRO:HD3	1.93	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:781:A:C2	25:DA:1776:G:H2'	2.56	0.41
1:AA:370:C:H2'	1:AA:371:G:O4'	2.21	0.41
44:BY:102:CYS:SG	44:BY:104:GLY:N	2.84	0.41
1:AA:270:A:H2'	1:AA:271:C:C6	2.55	0.41
1:AA:342:C:C2'	1:AA:343:U:H5'	2.47	0.41
1:AA:355:C:O2	1:AA:388:G:C2	2.74	0.41
3:AC:36:ASP:HA	3:AC:39:ILE:HD12	2.02	0.41
1:CA:736:C:N4	1:CA:737:A:H62	2.18	0.41
25:DA:856:C:O4'	46:D0:27:GLU:HB3	2.21	0.41
3:CC:36:ASP:OD1	3:CC:57:ILE:HD12	2.21	0.41
48:B2:28:LYS:HB3	48:B2:57:ILE:HG12	2.03	0.41
6:CF:10:LEU:HD23	6:CF:61:LEU:HD13	2.03	0.41
50:D4:15:ILE:O	50:D4:33:VAL:HG23	2.20	0.41
46:D0:19:LYS:HG2	46:D0:41:ARG:HH21	1.86	0.41
25:DA:2261:C:O2'	25:DA:2262:U:H5'	2.21	0.41
9:AI:43:ALA:HB1	9:AI:45:ALA:HB1	2.03	0.41
1:CA:324:G:OP1	20:CT:22:ARG:NE	2.54	0.41
25:BA:1249:U:OP1	58:BA:5380:HOH:O	2.22	0.41
1:CA:1342:C:H1'	9:CI:124:GLN:NE2	2.36	0.41
27:BD:259:THR:O	27:BD:260:ARG:C	2.59	0.41
25:DA:2705:A:H2	37:DR:64:ARG:HH11	1.68	0.41
25:DA:1278:A:H5''	37:DR:36:THR:HG22	2.03	0.41
17:AQ:77:VAL:O	17:AQ:78:GLU:HB2	2.21	0.41
32:BI:29:TYR:HB3	32:BI:30:LEU:H	1.72	0.41
12:CL:33:ARG:O	12:CL:85:ILE:HB	2.21	0.41
16:CP:55:ARG:HD2	16:CP:55:ARG:HA	1.69	0.41
1:CA:1067:A:C8	1:CA:1067:A:O5'	2.72	0.41
25:DA:1183:G:H4'	49:D3:29:ARG:HH12	1.86	0.41
17:AQ:45:HIS:HB2	17:AQ:65:ILE:HD13	2.03	0.41
1:AA:1058:G:C6	1:AA:1059:C:N3	2.88	0.41
25:BA:2094:G:O2'	25:BA:2095:C:H5'	2.21	0.41
2:CB:54:THR:O	2:CB:58:ILE:HG13	2.21	0.41
25:BA:1933:G:N2	25:BA:1968:G:H1'	2.36	0.41
1:CA:1300:G:O2'	1:CA:1301:U:OP2	2.24	0.41
26:BB:53:A:N3	26:BB:53:A:H5'	2.35	0.41
25:BA:1168:G:C2	25:BA:1182:A:C2	3.08	0.41
23:CV:47:U:H2'	23:CV:50:U:OP1	2.20	0.41
1:CA:1057:G:C2'	1:CA:1058:G:H5'	2.50	0.41
25:DA:1506:C:C2'	25:DA:1507:A:H5'	2.51	0.41
1:AA:949:A:C2	1:AA:1233:G:N3	2.89	0.41
25:BA:1662:C:C2'	25:BA:1663:C:H5'	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BI:104:GLN:O	32:BI:105:HIS:C	2.59	0.41
34:DO:79:PHE:CD2	39:DT:72:VAL:HG22	2.56	0.41
1:CA:1318:A:O2'	19:CS:37:ARG:HB3	2.20	0.41
54:B8:39:LYS:HA	54:B8:42:ARG:NH1	2.35	0.41
1:CA:784:C:H4'	25:DA:1837:C:OP1	2.20	0.41
31:BH:56:SER:OG	31:BH:57:ASP:N	2.53	0.41
25:BA:2670:A:C2	25:BA:2671:A:C4	3.09	0.41
27:DD:77:ALA:HA	27:DD:97:TYR:HA	2.03	0.41
35:DP:101:VAL:O	35:DP:104:GLY:N	2.38	0.41
33:DN:55:VAL:CG1	33:DN:126:PRO:HA	2.50	0.41
1:AA:532:A:C2'	1:AA:533:A:OP1	2.68	0.41
47:B1:5:CYS:HG	47:B1:8:SER:HG	1.61	0.41
26:BB:22:U:H3	26:BB:61:G:H1	1.68	0.41
35:BP:70:GLN:O	35:BP:73:GLY:N	2.53	0.41
25:DA:254:G:N7	54:D8:5:LYS:HE2	2.35	0.41
5:CE:137:GLU:O	5:CE:141:GLN:HB2	2.20	0.41
25:DA:1629:U:H2'	25:DA:1630:G:O4'	2.20	0.41
1:CA:286:G:C6	1:CA:287:U:C4	3.09	0.41
25:BA:2885:C:O2'	51:B5:34:PRO:HG3	2.20	0.41
30:DG:114:ILE:HB	30:DG:117:PHE:HB2	2.02	0.41
23:AV:52:G:C2	23:AV:63:G:C4	3.08	0.41
36:DQ:72:LYS:HA	36:DQ:73:PRO:HD3	1.90	0.41
25:BA:2086:U:O4	58:BA:3944:HOH:O	2.22	0.41
25:BA:614:U:O2	25:BA:614:U:O4'	2.36	0.41
35:BP:47:ASP:OD1	35:BP:47:ASP:C	2.59	0.41
20:CT:91:LEU:HD22	20:CT:91:LEU:HA	1.78	0.41
2:AB:121:LEU:O	2:AB:121:LEU:HD23	2.19	0.41
29:BF:12:LEU:HA	29:BF:12:LEU:HD22	1.78	0.41
22:AY:74:ALA:HA	22:AY:90:ARG:HH12	1.86	0.41
28:BE:35:GLN:H	28:BE:48:GLN:HB3	1.85	0.41
17:CQ:27:PHE:CZ	17:CQ:36:ILE:HD11	2.56	0.41
25:DA:1751:C:O4'	25:DA:2860:A:C2	2.74	0.41
1:AA:1386:G:H2'	1:AA:1387:G:H8	1.86	0.41
19:CS:20:LEU:HA	19:CS:23:ASN:HB3	2.01	0.41
25:DA:2552:U:H2'	25:DA:2554:U:OP2	2.21	0.41
45:BZ:118:GLN:O	45:BZ:120:ILE:HG13	2.20	0.41
25:BA:1833:U:H2'	25:BA:1834:U:H6	1.85	0.41
20:AT:55:ILE:O	20:AT:58:LYS:N	2.52	0.41
29:DF:116:ASP:OD2	35:DP:1:MET:HB2	2.21	0.41
36:BQ:133:ARG:HG2	36:BQ:134:ARG:H	1.86	0.41
25:BA:200:U:H5''	25:BA:201:C:OP2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:D8:39:LYS:O	54:D8:43:GLN:HG3	2.21	0.41
32:DI:61:ARG:C	32:DI:63:ALA:N	2.74	0.41
4:AD:160:GLN:H	4:AD:160:GLN:HG3	1.71	0.41
1:AA:1157:A:H4'	1:AA:1158:C:O4'	2.20	0.41
16:CP:41:PRO:O	16:CP:43:LYS:HD2	2.21	0.41
38:BS:99:LYS:O	38:BS:102:ALA:HB3	2.20	0.41
1:AA:344:A:OP2	1:AA:344:A:C8	2.74	0.41
41:BV:29:PRO:C	41:BV:31:ALA:H	2.25	0.41
20:AT:39:LYS:HE2	20:AT:39:LYS:HB2	1.90	0.41
7:AG:65:ALA:HB3	7:AG:124:LEU:HD23	2.01	0.41
31:DH:20:ALA:HB1	31:DH:21:PRO:CD	2.51	0.41
25:BA:1278:A:H2'	25:BA:1279:G:H8	1.86	0.41
25:BA:2405:G:O2'	25:BA:2406:U:P	2.79	0.41
25:DA:1344:G:O2'	25:DA:1385:G:H2'	2.21	0.41
25:BA:805:G:H4'	35:BP:38:GLN:HB3	2.03	0.41
46:B0:54:GLY:O	46:B0:56:ASP:N	2.54	0.41
45:BZ:15:PRO:HB2	45:BZ:19:ARG:NH2	2.36	0.41
25:BA:962:G:H2'	25:BA:963:U:C6	2.55	0.41
26:BB:12:C:N3	46:B0:74:ARG:NH2	2.68	0.41
25:DA:1252:G:C4	40:DU:33:ARG:HD2	2.56	0.41
15:CO:24:SER:O	15:CO:25:THR:C	2.60	0.41
1:AA:993:G:O6	1:AA:1045:C:N4	2.50	0.41
1:AA:1162:C:N4	1:AA:1174:G:H1	2.19	0.41
25:BA:1797:C:O2'	27:BD:259:THR:HB	2.21	0.41
22:AY:45:ALA:O	22:AY:46:SER:OG	2.39	0.41
25:DA:1355:G:N2	25:DA:1376:C:O2	2.48	0.41
17:CQ:94:ASN:O	17:CQ:98:LEU:HD13	2.21	0.41
25:BA:270:A:H1'	25:BA:370:G:C2	2.56	0.41
39:BT:12:SER:HA	39:BT:15:VAL:HG23	2.03	0.41
12:AL:11:VAL:HG13	17:AQ:29:HIS:CD2	2.56	0.41
13:CM:4:ILE:HG12	13:CM:9:ILE:HG13	2.03	0.41
25:BA:2699:C:H2'	25:BA:2700:C:O4'	2.21	0.41
13:CM:25:ILE:HD11	13:CM:66:LEU:HD11	2.02	0.41
25:BA:1385:G:H4'	25:BA:1386:C:OP1	2.21	0.41
30:BG:11:TYR:CE2	30:BG:16:ARG:HD3	2.56	0.41
33:BN:46:VAL:O	33:BN:47:ALA:HB3	2.21	0.41
6:CF:80:ARG:NH2	6:CF:80:ARG:HG3	2.36	0.41
18:AR:73:ALA:HB1	18:AR:79:LEU:HG	2.03	0.41
18:AR:73:ALA:O	18:AR:76:LEU:N	2.45	0.41
25:BA:459:U:H4'	53:B7:40:TRP:CZ3	2.56	0.41
25:DA:2398:U:O2'	25:DA:2399:G:H5'	2.22	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1285:A:H1'	1:CA:1286:A:OP2	2.21	0.41
3:CC:5:ILE:HD12	3:CC:5:ILE:HA	1.90	0.41
14:AN:53:LEU:HA	14:AN:53:LEU:HD23	1.80	0.41
25:DA:28:A:C2'	25:DA:29:U:H5'	2.51	0.41
45:BZ:53:ILE:HG22	45:BZ:71:VAL:O	2.21	0.41
29:DF:181:LEU:CD1	29:DF:186:ILE:HD11	2.51	0.41
1:AA:1445:C:C4	1:AA:1446:U:C4	3.09	0.41
48:D2:10:LEU:HD22	48:D2:14:ARG:NH1	2.36	0.41
7:CG:118:VAL:O	7:CG:121:ALA:HB3	2.21	0.41
45:DZ:38:TYR:HD1	45:DZ:39:VAL:O	2.04	0.41
1:CA:719:C:O2'	18:CR:49:LYS:HB3	2.21	0.41
25:DA:2531:A:H5'	31:DH:157:TYR:CE1	2.56	0.41
45:DZ:16:SER:O	45:DZ:20:ARG:HB2	2.21	0.41
25:BA:2854:G:H2'	25:BA:2855:C:C6	2.56	0.41
25:BA:1373:A:H2'	25:BA:1374:G:O4'	2.21	0.41
9:AI:8:GLY:HA3	9:AI:76:ALA:O	2.21	0.41
1:CA:367:U:C2	1:CA:369:C:C5	3.09	0.41
25:DA:2817:G:C4	25:DA:2830:G:N2	2.89	0.41
20:CT:20:LEU:O	20:CT:24:LEU:HD23	2.21	0.41
1:AA:499:A:H4'	1:AA:500:G:OP1	2.21	0.41
25:BA:757:U:H2'	25:BA:758:C:O4'	2.21	0.41
37:BR:56:LYS:NZ	37:BR:87:TYR:O	2.44	0.41
1:AA:605:U:H2'	1:AA:606:G:H5'	2.02	0.41
27:DD:10:THR:HG23	27:DD:13:ARG:HB2	2.03	0.41
45:BZ:163:LEU:HD12	45:BZ:163:LEU:HA	1.93	0.41
41:BV:62:LEU:HD12	41:BV:62:LEU:HA	1.71	0.41
21:AU:15:ARG:HH11	21:AU:15:ARG:HB2	1.86	0.41
16:CP:8:ARG:HA	16:CP:17:TYR:CD2	2.56	0.41
25:BA:436:C:H2'	25:BA:437:G:C8	2.56	0.41
1:CA:1357:A:H5''	1:CA:1358:U:OP2	2.20	0.40
1:CA:1321:C:C3'	1:CA:1322:C:H5''	2.51	0.40
25:DA:1365:A:N6	25:DA:1366:A:C6	2.89	0.40
25:DA:864:G:H1'	25:DA:914:C:N4	2.36	0.40
7:CG:23:VAL:HG13	7:CG:43:PHE:CE2	2.34	0.40
25:DA:1528(A):A:C8	25:DA:1529:G:C8	3.09	0.40
38:BS:101:LEU:O	38:BS:102:ALA:C	2.58	0.40
35:DP:143:GLY:C	35:DP:145:PRO:HD3	2.42	0.40
8:CH:33:GLU:HG2	8:CH:59:LEU:CD1	2.52	0.40
25:DA:297:C:H2'	25:DA:298:G:O4'	2.21	0.40
25:DA:2577:A:O4'	51:D5:3:LYS:HB2	2.21	0.40
45:DZ:48:PHE:CE2	45:DZ:71:VAL:HG11	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2699:C:H2'	25:DA:2700:C:O4'	2.21	0.40
32:BI:130:TYR:HB3	32:BI:138:ILE:HD13	2.02	0.40
25:DA:1149:G:C2	25:DA:1150:C:C4	3.09	0.40
25:DA:2056:G:O2'	51:D5:8:LYS:HD2	2.20	0.40
3:CC:18:TRP:N	3:CC:18:TRP:HE3	2.12	0.40
35:DP:84:ASN:HB3	35:DP:117:GLU:O	2.20	0.40
53:B7:9:ARG:HH21	53:B7:47:ARG:HG3	1.85	0.40
3:CC:66:VAL:O	3:CC:68:VAL:HG23	2.21	0.40
45:BZ:45:ASP:O	45:BZ:46:LYS:C	2.60	0.40
25:DA:2329:G:H2'	25:DA:2330:G:C8	2.55	0.40
25:DA:1031:G:O2'	55:D9:7:VAL:N	2.45	0.40
9:AI:43:ALA:HB2	9:AI:74:ILE:HG12	2.03	0.40
25:BA:566:U:OP1	35:BP:29:LYS:HD2	2.21	0.40
1:AA:448:A:C2	1:AA:487:A:C2	3.09	0.40
20:CT:22:ARG:O	20:CT:25:ARG:N	2.53	0.40
7:AG:24:THR:O	7:AG:27:ILE:HG22	2.21	0.40
25:DA:769:G:C2'	25:DA:770:G:H5'	2.51	0.40
17:AQ:31:LEU:HD23	17:AQ:32:TYR:CZ	2.56	0.40
25:BA:1166:C:O2	25:BA:1184:G:C2	2.74	0.40
25:DA:1945:G:C4	25:DA:1946:U:C5	3.09	0.40
17:CQ:68:ARG:H	17:CQ:70:ARG:HH11	1.68	0.40
25:DA:1792:G:H2'	25:DA:1793:C:C6	2.56	0.40
25:DA:872:A:OP1	36:DQ:5:ARG:NH1	2.54	0.40
25:DA:237:C:N3	25:DA:261:G:C2	2.89	0.40
29:DF:181:LEU:HD11	29:DF:186:ILE:HD11	2.03	0.40
16:CP:68:ASP:O	16:CP:70:ALA:N	2.54	0.40
1:AA:1261:A:H3'	1:AA:1262:C:C6	2.56	0.40
52:B6:23:THR:OG1	52:B6:24:GLU:N	2.50	0.40
35:DP:101:VAL:HG12	35:DP:102:ARG:N	2.36	0.40
16:CP:18:ARG:NH1	16:CP:32:TYR:OH	2.55	0.40
25:BA:190:A:P	25:BA:205:G:H22	2.44	0.40
25:BA:2340:G:H2'	25:BA:2341:G:H8	1.85	0.40
25:BA:2835:A:C6	25:BA:2879:C:C6	3.10	0.40
25:BA:2652:C:C2'	25:BA:2653:U:H5'	2.51	0.40
22:AY:130:ALA:O	22:AY:131:MET:HG2	2.22	0.40
28:BE:112:GLY:O	28:BE:159:HIS:HA	2.21	0.40
25:BA:1756:G:H4'	25:BA:1758:G:O4'	2.21	0.40
25:DA:2740:A:C6	25:DA:2764:A:C8	3.09	0.40
5:AE:79:GLU:H	5:AE:79:GLU:HG3	1.56	0.40
43:DX:2:LYS:HA	43:DX:2:LYS:HD2	1.85	0.40
1:AA:787:A:H8	1:AA:787:A:H5''	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BG:152:LEU:HG	30:BG:152:LEU:O	2.21	0.40
6:AF:62:TRP:CD1	18:AR:35:ARG:CZ	3.04	0.40
25:DA:2510:C:H2'	25:DA:2511:U:C6	2.56	0.40
1:CA:1324:A:O4'	1:CA:1362:C:H4'	2.21	0.40
14:CN:60:SER:O	14:CN:61:TRP:HB3	2.20	0.40
25:BA:2319:G:N2	38:BS:3:ARG:HB2	2.36	0.40
29:BF:39:TRP:O	29:BF:43:LYS:HG2	2.21	0.40
1:AA:374:A:C4	1:AA:375:U:C5	3.09	0.40
25:BA:1047:G:N7	25:BA:1110:G:C6	2.90	0.40
25:DA:2296:U:H4'	25:DA:2297:C:OP1	2.20	0.40
25:BA:528:A:H2	25:BA:2043:C:H5'	1.87	0.40
1:AA:59:A:H2'	1:AA:59:A:N3	2.37	0.40
25:BA:271(N):U:O2'	25:BA:271(O):C:H5'	2.21	0.40
2:CB:20:GLU:HB2	2:CB:190:THR:OG1	2.20	0.40
4:CD:9:CYS:O	4:CD:13:ARG:HG3	2.20	0.40
1:CA:1298:C:H2'	7:CG:114:ARG:HH12	1.86	0.40
25:BA:2058:A:H5''	25:BA:2059:A:OP2	2.21	0.40
25:BA:805:G:P	58:BA:5183:HOH:O	2.78	0.40
1:AA:458:C:H3'	1:AA:460:G:C8	2.56	0.40
16:CP:53:VAL:O	16:CP:56:ALA:N	2.55	0.40
1:CA:1319:A:N6	1:CA:1361:G:H21	2.17	0.40
25:DA:1002:G:H2'	25:DA:1003:G:O4'	2.21	0.40
25:DA:1153:C:OP1	40:DU:92:ARG:NH1	2.55	0.40
1:CA:1492:A:C4'	1:CA:1493:A:OP1	2.67	0.40
8:CH:132:GLU:O	8:CH:134:ILE:HG12	2.21	0.40
23:CV:18:G:C2	23:CV:58:A:C4	3.10	0.40
25:BA:71:A:H8	25:BA:71:A:H5'	1.86	0.40
54:D8:54:GLU:HA	54:D8:57:ARG:HD2	2.03	0.40
25:DA:2448:A:N6	58:DA:3963:HOH:O	2.54	0.40
1:CA:908:A:H8	1:CA:908:A:O5'	2.05	0.40
1:CA:983:A:H1'	1:CA:1049:U:O2	2.21	0.40
1:AA:1015:A:C6	1:AA:1016:A:C6	3.09	0.40
45:DZ:29:TYR:CE2	45:DZ:87:ASP:HB3	2.57	0.40
1:AA:520:A:N1	1:AA:536:C:H1'	2.36	0.40
1:AA:427:U:H3'	1:AA:428:G:H2'	2.03	0.40
1:AA:827:U:C4	1:AA:870:U:C4	3.09	0.40
28:DE:4:ILE:C	28:DE:5:LEU:HD23	2.42	0.40
27:BD:148:GLU:O	27:BD:151:LYS:HB2	2.21	0.40
26:BB:37:C:H2'	26:BB:38:C:H5'	2.03	0.40
1:CA:1237:C:H5''	1:CA:1238:A:O4'	2.22	0.40
26:BB:31:C:H6	26:BB:31:C:O5'	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1593:G:H2'	25:BA:1594:G:H8	1.84	0.40
26:DB:6:C:H2'	26:DB:7:G:O4'	2.21	0.40
25:DA:196:A:N3	25:DA:196:A:H2'	2.37	0.40
1:AA:409:G:C2	1:AA:410:G:H1'	2.57	0.40
33:DN:19:GLU:CG	33:DN:20:GLY:H	2.34	0.40
25:DA:307:G:H22	25:DA:310:A:P	2.44	0.40
1:CA:254:G:OP1	17:CQ:67:LYS:O	2.39	0.40
31:BH:154:PRO:HB3	31:BH:163:TYR:CE2	2.56	0.40
9:AI:70:LYS:O	9:AI:73:GLN:HB2	2.21	0.40
6:AF:9:VAL:HB	6:AF:87:ARG:HB2	2.02	0.40
25:BA:143:G:H2'	25:BA:143(A):C:C6	2.56	0.40
25:DA:817:C:H2'	25:DA:818:G:O4'	2.20	0.40
1:CA:283:C:H2'	1:CA:284:G:O4'	2.22	0.40
25:BA:1854:A:C8	25:BA:1855:G:C8	3.09	0.40
25:BA:305:U:H2'	25:BA:306:U:C6	2.56	0.40
29:BF:129:PHE:N	29:BF:129:PHE:CD2	2.89	0.40
1:CA:683:G:H2'	1:CA:684:A:O4'	2.21	0.40
38:BS:18:ILE:O	38:BS:21:THR:HG23	2.21	0.40
25:DA:1131:G:H4'	33:DN:82:LEU:HB2	2.03	0.40
27:BD:228:PRO:HD3	27:BD:235:GLY:N	2.37	0.40
25:DA:1416:G:O2'	25:DA:1417:C:C5	2.74	0.40
1:CA:579:G:H2'	1:CA:580:U:C6	2.56	0.40
18:AR:47:THR:HG23	18:AR:49:LYS:HG3	2.04	0.40
2:AB:27:LYS:HD2	2:AB:193:ASP:OD1	2.21	0.40
25:BA:2659:G:P	31:BH:158:HIS:HE2	2.44	0.40
1:AA:157:G:H5''	58:AA:2201:HOH:O	2.20	0.40
25:BA:903:C:H2'	25:BA:904:C:C6	2.56	0.40
43:BX:72:LYS:HE2	43:BX:73:ARG:O	2.20	0.40
1:CA:15:G:C5	1:CA:1396:A:C2	3.10	0.40
13:CM:82:MET:HA	13:CM:89:GLY:HA3	2.03	0.40
25:DA:1511:C:H2'	25:DA:1512:U:H6	1.85	0.40
28:BE:31:CYS:O	28:BE:91:VAL:HG23	2.21	0.40
25:DA:2731:G:C6	25:DA:2732:G:O6	2.74	0.40
27:DD:25:THR:OG1	27:DD:81:ALA:HB1	2.21	0.40
1:CA:309:G:H1'	1:CA:608:A:C2	2.56	0.40
25:DA:1418:G:O5'	25:DA:1418:G:H8	2.05	0.40
53:B7:1:MET:HE2	53:B7:1:MET:HB2	1.87	0.40
25:DA:346:A:N3	25:DA:346:A:H2'	2.36	0.40
25:BA:2404:C:O5'	25:BA:2404:C:H6	2.04	0.40
53:D7:36:GLN:HG2	53:D7:36:GLN:O	2.21	0.40
30:DG:103:LEU:HA	30:DG:103:LEU:HD23	1.82	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:79:C:H42	26:BB:98:G:H1	1.69	0.40
27:DD:274:ARG:CA	27:DD:275:LYS:HB3	2.52	0.40
9:AI:16:ARG:HB2	9:AI:64:THR:CG2	2.51	0.40
15:AO:59:MET:O	15:AO:62:GLN:HB3	2.21	0.40
1:AA:1298:C:O4'	1:AA:1299:A:C5	2.74	0.40
46:B0:55:ARG:CB	46:B0:55:ARG:HH11	2.29	0.40
32:BI:79:ILE:HG22	32:BI:81:VAL:HG13	2.04	0.40
4:CD:13:ARG:HD2	4:CD:38:TYR:O	2.21	0.40
27:BD:168:ARG:HG2	27:BD:173:VAL:HG12	2.04	0.40
1:CA:736:C:C2	1:CA:737:A:N7	2.90	0.40
48:B2:1:MET:HB3	48:B2:5:GLU:HB2	2.02	0.40
35:BP:96:THR:O	35:BP:100:LEU:HG	2.21	0.40
54:D8:57:ARG:O	54:D8:58:ILE:C	2.60	0.40
15:AO:39:LEU:CD1	15:AO:56:LEU:HB2	2.51	0.40
13:CM:70:LEU:HD22	13:CM:70:LEU:O	2.21	0.40
1:CA:1342:C:H2'	1:CA:1343:G:C8	2.56	0.40
28:DE:49:LEU:HA	28:DE:49:LEU:HD12	1.72	0.40
19:CS:57:HIS:O	19:CS:59:PRO:HD3	2.21	0.40
1:AA:445:G:H2'	1:AA:446:G:C8	2.57	0.40
25:BA:2755:C:C5	55:B9:19:ARG:NH1	2.88	0.40
39:DT:121:ILE:HG22	39:DT:122:ASP:N	2.36	0.40
27:DD:75:ILE:HG21	27:DD:99:ASP:HB2	2.03	0.40
1:AA:552:U:H4'	12:AL:86:ARG:HG2	2.02	0.40
29:BF:155:LEU:HD11	29:BF:176:LEU:HD22	2.03	0.40
25:DA:2697:G:H2'	25:DA:2698:U:O4'	2.21	0.40
4:CD:119:GLN:OE1	4:CD:123:HIS:CE1	2.74	0.40
16:AP:22:THR:HG23	16:AP:23:ASP:N	2.37	0.40
18:AR:76:LEU:HD13	18:AR:76:LEU:HA	1.75	0.40
26:DB:95:C:H2'	26:DB:96:U:C6	2.56	0.40
25:BA:7:G:H2'	25:BA:8:A:O4'	2.20	0.40
7:AG:144:MET:C	7:AG:145:ALA:O	2.60	0.40
25:DA:108:U:H2'	25:DA:109:G:C8	2.56	0.40
1:AA:660:G:O2'	1:AA:661:G:OP1	2.38	0.40
30:DG:122:PRO:HG3	30:DG:180:PHE:HB3	2.04	0.40
1:AA:684:A:N6	1:AA:685:G:C6	2.89	0.40
40:DU:55:ARG:HE	40:DU:55:ARG:HB3	1.51	0.40
9:CI:18:PHE:O	9:CI:62:TYR:N	2.37	0.40
45:BZ:48:PHE:O	45:BZ:52:SER:N	2.48	0.40
23:AV:17:C:H5	23:AV:17(B):U:C5	2.39	0.40
23:AV:74:C:O2	25:BA:2252:G:N2	2.45	0.40
25:DA:969:U:OP1	49:D3:17:LYS:HB3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1178:G:N2	1:CA:1180:A:H3'	2.36	0.40
25:DA:2291:U:H5''	25:DA:2380:C:O2'	2.20	0.40
25:DA:2652:C:H42	25:DA:2668:G:H1	1.70	0.40
25:DA:724:U:H2'	25:DA:725:G:O4'	2.22	0.40
25:DA:2769:C:H2'	25:DA:2770:G:O4'	2.22	0.40
3:CC:34:LEU:CD1	3:CC:38:ARG:HD2	2.51	0.40
37:DR:54:LEU:O	37:DR:57:ARG:HB2	2.22	0.40
25:DA:2687:U:H2'	25:DA:2688:U:O4'	2.21	0.40
25:BA:662:G:H5'	35:BP:14:LYS:O	2.22	0.40
2:CB:118:LEU:HB3	2:CB:142:LEU:HG	2.03	0.40
25:BA:272:G:H1	25:BA:404:C:H42	1.68	0.40
25:DA:387:U:P	58:DA:4631:HOH:O	2.79	0.40
25:DA:2518:A:H2'	25:DA:2518:A:N3	2.36	0.40
43:BX:9:LEU:HA	43:BX:9:LEU:HD23	1.76	0.40
36:BQ:103:MET:HE3	36:BQ:103:MET:HB3	1.88	0.40
20:AT:8:ARG:HH11	20:AT:8:ARG:HD3	1.76	0.40
11:AK:12:ARG:CG	11:AK:75:TYR:HA	2.51	0.40
25:BA:1402:C:H2'	25:BA:1403:C:H5'	2.03	0.40
54:B8:61:LEU:C	54:B8:63:PRO:HD3	2.42	0.40
38:BS:3:ARG:HE	38:BS:4:LEU:H	1.68	0.40
25:DA:330:A:H2	25:DA:1210:A:H2'	1.86	0.40
1:AA:926:G:H5''	1:AA:927:G:O5'	2.20	0.40
16:AP:48:TRP:O	16:AP:49:LEU:HB2	2.22	0.40
45:DZ:57:ILE:HD13	45:DZ:71:VAL:HG23	2.02	0.40
8:AH:25:ASP:OD2	8:AH:60:ARG:HG3	2.21	0.40
1:AA:59:A:H3'	1:AA:331:G:H22	1.86	0.40
8:AH:75:ARG:HA	8:AH:76:PRO:HD2	1.74	0.40
25:BA:2356:C:H2'	25:BA:2357:U:O4'	2.21	0.40
25:DA:1319:G:O2'	25:DA:1320:C:H5'	2.22	0.40
52:D6:3:SER:N	52:D6:6:ARG:HB3	2.31	0.40
3:AC:204:LEU:HA	3:AC:204:LEU:HD23	1.79	0.40
38:BS:56:LEU:C	38:BS:58:LEU:HD22	2.42	0.40
30:BG:60:LEU:HA	30:BG:60:LEU:HD13	1.87	0.40
44:BY:51:VAL:HG22	44:BY:58:GLY:CA	2.48	0.40
26:DB:19:G:N2	26:DB:64:C:N3	2.63	0.40
1:AA:1223:C:C5'	1:AA:1224:G:H5''	2.51	0.40
42:DW:100:THR:HG22	42:DW:100:THR:O	2.22	0.40
27:DD:125:ILE:O	27:DD:125:ILE:HG22	2.21	0.40
25:BA:1494:A:C2	25:BA:1495:A:C4	3.09	0.40
23:AV:49:G:C6	23:AV:50:U:C4	3.09	0.40
12:AL:30:ALA:HA	12:AL:31:PRO:HD3	1.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:49:GLU:O	8:CH:51:VAL:HG13	2.21	0.40
26:BB:31:C:N4	38:BS:32:LEU:HD22	2.37	0.40
25:DA:2881:C:C4	25:DA:2882:A:N7	2.90	0.40
11:AK:29:ILE:HG23	11:AK:44:SER:CB	2.51	0.40
3:AC:156:ARG:HB3	3:AC:193:TYR:HD1	1.87	0.40
25:BA:2872:G:O2'	25:BA:2873:A:H5'	2.21	0.40
29:BF:199:TRP:HE1	29:BF:203:GLN:HE21	1.70	0.40
33:DN:39:ARG:NH2	33:DN:41:ASP:OD2	2.54	0.40
1:CA:393:A:C4	1:CA:394:G:C8	3.10	0.40
1:AA:719:C:C5	1:AA:720:C:C4	3.09	0.40
25:BA:452:G:C2	25:BA:458:G:C5	3.10	0.40
52:B6:10:LEU:HD11	52:B6:54:ILE:HA	2.03	0.40
1:CA:307:C:C5	1:CA:308:C:C5	3.10	0.40
1:CA:57:G:C5	1:CA:58:C:C4	3.10	0.40
27:DD:148:GLU:OE1	27:DD:151:LYS:NZ	2.53	0.40
25:BA:322:A:C6	25:BA:340:A:C2	3.10	0.40
1:CA:409:G:C6	1:CA:410:G:C4	3.10	0.40
25:BA:619:G:H5''	25:BA:620:G:OP2	2.22	0.40
25:BA:1632:A:C6	25:BA:1633:G:C6	3.10	0.40
25:BA:296:C:H2'	25:BA:297:C:C6	2.56	0.40
25:BA:2552:U:C2	25:BA:2554:U:C5'	3.04	0.40
7:CG:71:PRO:HG3	7:CG:103:TRP:CZ3	2.56	0.40
39:BT:36:GLU:HB3	39:BT:37:GLY:H	1.69	0.40
25:DA:1658:C:H2'	25:DA:1659:U:C6	2.57	0.40
1:CA:1332:A:O5'	1:CA:1332:A:C8	2.74	0.40
31:BH:40:GLU:OE1	31:BH:60:ARG:NH1	2.55	0.40
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.21	0.40
19:AS:61:TYR:CE2	19:AS:63:THR:HG22	2.56	0.40
1:AA:157:G:H2'	1:AA:157:G:N3	2.36	0.40
33:BN:75:TYR:HA	33:BN:81:GLY:O	2.22	0.40
1:CA:431:A:H5''	1:CA:432:A:OP2	2.21	0.40
55:B9:25:VAL:O	55:B9:33:LYS:HA	2.21	0.40
25:BA:44:G:H5''	25:BA:45:C:OP1	2.20	0.40
25:DA:2298:A:H3'	25:DA:2299:G:H8	1.85	0.40
1:CA:196:A:H5''	58:CA:1907:HOH:O	2.20	0.40
1:AA:595:G:H1'	1:AA:596:C:C5	2.56	0.40
9:AI:95:LYS:O	9:AI:99:LEU:HD13	2.21	0.40
5:CE:152:ARG:HB3	8:CH:43:GLY:HA3	2.03	0.40
25:BA:2238:G:H4'	25:BA:2239:G:OP1	2.21	0.40
25:BA:2876:G:H4'	39:BT:2:ASN:ND2	2.36	0.40
13:AM:106:ASN:HB3	13:AM:107:ALA:H	1.61	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:960:U:O2	1:CA:960:U:H2'	2.22	0.40
25:BA:800:A:H8	25:BA:800:A:OP1	2.04	0.40
5:CE:121:LYS:HA	5:CE:121:LYS:HD3	1.97	0.40
31:BH:88:LEU:HD13	31:BH:88:LEU:HA	1.64	0.40
44:DY:67:LEU:HA	44:DY:67:LEU:HD22	1.88	0.40
25:DA:1854:A:H2'	25:DA:1855:G:O4'	2.21	0.40
25:BA:2633:G:H2'	25:BA:2634:G:O4'	2.22	0.40
25:BA:876:C:H2'	25:BA:877:U:O4'	2.21	0.40
25:BA:878:A:C2	25:BA:879:G:C5	3.09	0.40
25:DA:2065:C:H2'	25:DA:2066:C:C6	2.57	0.40
32:DI:132:PRO:HD3	32:DI:138:ILE:HG13	2.04	0.40
8:AH:5:PRO:O	8:AH:8:ASP:HB3	2.21	0.40
25:BA:2820:A:OP1	37:BR:2:ARG:NH2	2.54	0.40
25:DA:271(P):C:C2'	25:DA:271(Q):G:H5'	2.52	0.40
25:DA:1721:G:O6	25:DA:1739:U:H5''	2.21	0.40
1:AA:147:G:C2	1:AA:148:G:C4	3.09	0.40
1:AA:152:A:N6	1:AA:170:U:H3	2.19	0.40
1:CA:450:G:H5'	16:CP:41:PRO:O	2.22	0.40
25:DA:2295:C:O2	25:DA:2338:G:C2	2.74	0.40
25:BA:1152:C:C2'	25:BA:1153:C:H5'	2.52	0.40
2:CB:21:ARG:HB2	2:CB:38:GLY:O	2.22	0.40
31:DH:9:ILE:HD11	31:DH:69:ARG:HD2	2.03	0.40
13:CM:92:HIS:CD2	13:CM:98:VAL:HG11	2.56	0.40
1:CA:425:G:C2'	1:CA:426:G:H5'	2.51	0.40
1:CA:1118:C:OP1	9:CI:104:ARG:HG3	2.21	0.40
47:D1:83:GLU:HA	47:D1:84:GLY:HA2	1.86	0.40
25:DA:848:G:N9	25:DA:933:A:C8	2.88	0.40
1:CA:738:C:OP1	6:CF:2:ARG:NH1	2.53	0.40
52:B6:40:CYS:HA	52:B6:41:PRO:HD3	1.62	0.40
37:DR:1:MET:HB3	37:DR:2:ARG:H	1.54	0.40
22:AY:60:SER:HB3	25:BA:1947:C:OP1	2.22	0.40
1:CA:51:A:C6	1:CA:353:A:C2	3.10	0.40
25:DA:288:C:O2	25:DA:353:G:N2	2.29	0.40
9:AI:43:ALA:CA	9:AI:45:ALA:HA	2.51	0.40
10:AJ:38:ILE:HG12	10:AJ:71:LEU:C	2.41	0.40
32:DI:116:LEU:HD11	32:DI:120:ILE:HG13	2.02	0.40
1:CA:624:C:H2'	1:CA:625:G:C8	2.57	0.40
54:B8:35:GLN:HG3	54:B8:35:GLN:O	2.20	0.40
1:AA:1015:A:H2'	1:AA:1016:A:O4'	2.21	0.40
45:DZ:30:ASN:HB2	45:DZ:89:PHE:CE2	2.56	0.40
26:DB:14:U:H1'	26:DB:108:U:O2'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BY:23:ARG:HB2	44:BY:23:ARG:NH1	2.34	0.40
1:CA:435:C:H2'	1:CA:436:C:H5'	2.03	0.40
25:DA:1328:G:H2'	25:DA:1330:C:C4	2.56	0.40
25:DA:328:U:H4'	44:DY:68:HIS:NE2	2.36	0.40
1:AA:445:G:C6	1:AA:446:G:C6	3.10	0.40
25:BA:1494:A:C6	25:BA:1495:A:C6	3.10	0.40
1:AA:679:C:H2'	1:AA:680:C:H6	1.86	0.40
1:AA:1308:U:H5''	13:AM:98:VAL:CG1	2.51	0.40
23:AV:49:G:N2	23:AV:66:C:C2	2.90	0.40
25:DA:2709:G:H2'	25:DA:2710:C:C6	2.57	0.40
38:DS:26:LEU:HD12	38:DS:39:ILE:HD11	2.04	0.40
1:CA:373:A:N3	1:CA:374:A:C8	2.89	0.40
30:DG:15:VAL:HG13	30:DG:175:LEU:HB3	2.04	0.40
12:AL:76:ASN:ND2	12:AL:106:ASP:O	2.55	0.40
41:DV:20:LEU:HD12	41:DV:20:LEU:HA	1.84	0.40
1:AA:407:G:O2'	4:AD:116:GLN:HA	2.22	0.40
11:AK:80:VAL:HG11	11:AK:103:LEU:HD13	2.02	0.40
9:AI:73:GLN:O	9:AI:77:ILE:HG13	2.22	0.40
1:AA:189(J):G:H2'	1:AA:189(K):U:C6	2.56	0.40
25:DA:872:A:C5	25:DA:906:G:N2	2.90	0.40
28:DE:60:ASN:OD1	28:DE:62:PRO:HD2	2.22	0.40
6:AF:25:ILE:HG12	6:AF:25:ILE:H	1.41	0.40
25:DA:704:G:N3	25:DA:726:G:C2	2.90	0.40
25:BA:2553:G:H5''	25:BA:2554:U:OP2	2.21	0.40
46:B0:47:PRO:HB2	46:B0:51:VAL:O	2.22	0.40
27:DD:228:PRO:HD3	27:DD:235:GLY:CA	2.51	0.40
1:AA:604:G:H2'	1:AA:605:U:O4'	2.21	0.40
17:CQ:8:GLY:HA3	17:CQ:22:LEU:O	2.21	0.40
25:BA:623:G:H2'	25:BA:624:C:C6	2.56	0.40
32:DI:62:LYS:O	32:DI:66:GLU:HB2	2.20	0.40
17:CQ:37:LYS:O	17:CQ:38:ARG:NH2	2.55	0.40
25:DA:513:A:C2	25:DA:514:A:C5	3.09	0.40
25:DA:2091:U:O2'	47:D1:47:GLN:HG3	2.22	0.40
25:BA:1835:G:H5''	25:BA:1836:C:OP2	2.21	0.40
1:CA:1426:C:O2	1:CA:1475:G:C2	2.74	0.40
25:BA:945:A:C4	25:BA:2448:A:C2	3.10	0.40
25:DA:2489:G:C6	25:DA:2490:G:N1	2.90	0.40
39:BT:45:PHE:HE2	39:BT:63:VAL:CG1	2.35	0.40
25:BA:954:G:C5	25:BA:955:C:C5	3.10	0.40
25:BA:1682:G:C6	25:BA:1683:C:C4	3.09	0.40
29:BF:110:LEU:HA	29:BF:110:LEU:HD23	1.73	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:87:LEU:HA	31:BH:87:LEU:HD23	1.81	0.40
25:DA:68:G:H2'	25:DA:69:C:O4'	2.22	0.40
1:AA:24:U:H2'	1:AA:25:C:C6	2.56	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:14:LEU:O	4:CD:20:TYR:OH[3_654]	2.11	0.09

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	AB	231/256 (90%)	179 (78%)	50 (22%)	2 (1%)	21	67
2	CB	233/256 (91%)	182 (78%)	45 (19%)	6 (3%)	7	40
3	AC	202/239 (84%)	165 (82%)	33 (16%)	4 (2%)	9	48
3	CC	204/239 (85%)	168 (82%)	36 (18%)	0	100	100
4	AD	206/209 (99%)	166 (81%)	35 (17%)	5 (2%)	7	43
4	CD	206/209 (99%)	178 (86%)	23 (11%)	5 (2%)	7	43
5	AE	146/162 (90%)	120 (82%)	26 (18%)	0	100	100
5	CE	147/162 (91%)	129 (88%)	13 (9%)	5 (3%)	5	31
6	AF	98/101 (97%)	95 (97%)	3 (3%)	0	100	100
6	CF	98/101 (97%)	89 (91%)	9 (9%)	0	100	100
7	AG	152/156 (97%)	134 (88%)	17 (11%)	1 (1%)	26	72
7	CG	152/156 (97%)	131 (86%)	20 (13%)	1 (1%)	26	72
8	AH	136/138 (99%)	122 (90%)	13 (10%)	1 (1%)	26	72

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
8	CH	136/138 (99%)	126 (93%)	10 (7%)	0	100	100
9	AI	123/128 (96%)	105 (85%)	15 (12%)	3 (2%)	7	43
9	CI	123/128 (96%)	106 (86%)	13 (11%)	4 (3%)	5	32
10	AJ	94/105 (90%)	81 (86%)	9 (10%)	4 (4%)	3	25
10	CJ	94/105 (90%)	74 (79%)	17 (18%)	3 (3%)	5	33
11	AK	113/129 (88%)	101 (89%)	11 (10%)	1 (1%)	21	67
11	CK	112/129 (87%)	98 (88%)	14 (12%)	0	100	100
12	AL	120/132 (91%)	108 (90%)	10 (8%)	2 (2%)	11	52
12	CL	120/132 (91%)	111 (92%)	7 (6%)	2 (2%)	11	52
13	AM	113/126 (90%)	89 (79%)	20 (18%)	4 (4%)	4	31
13	CM	110/126 (87%)	82 (74%)	21 (19%)	7 (6%)	2	13
14	AN	57/61 (93%)	44 (77%)	13 (23%)	0	100	100
14	CN	57/61 (93%)	48 (84%)	8 (14%)	1 (2%)	11	51
15	AO	86/89 (97%)	74 (86%)	12 (14%)	0	100	100
15	CO	86/89 (97%)	75 (87%)	11 (13%)	0	100	100
16	AP	79/88 (90%)	62 (78%)	14 (18%)	3 (4%)	4	28
16	CP	80/88 (91%)	66 (82%)	10 (12%)	4 (5%)	3	21
17	AQ	97/105 (92%)	83 (86%)	13 (13%)	1 (1%)	19	65
17	CQ	97/105 (92%)	83 (86%)	13 (13%)	1 (1%)	19	65
18	AR	66/88 (75%)	56 (85%)	10 (15%)	0	100	100
18	CR	66/88 (75%)	58 (88%)	8 (12%)	0	100	100
19	AS	79/93 (85%)	63 (80%)	15 (19%)	1 (1%)	15	59
19	CS	73/93 (78%)	60 (82%)	13 (18%)	0	100	100
20	AT	94/106 (89%)	73 (78%)	19 (20%)	2 (2%)	9	46
20	CT	102/106 (96%)	73 (72%)	26 (26%)	3 (3%)	6	36
21	AU	23/27 (85%)	21 (91%)	2 (9%)	0	100	100
21	CU	21/27 (78%)	19 (90%)	2 (10%)	0	100	100
22	AY	130/140 (93%)	107 (82%)	21 (16%)	2 (2%)	13	55
27	BD	273/276 (99%)	254 (93%)	19 (7%)	0	100	100
27	DD	273/276 (99%)	255 (93%)	16 (6%)	2 (1%)	26	72
28	BE	202/206 (98%)	189 (94%)	9 (4%)	4 (2%)	9	48

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
28	DE	202/206 (98%)	187 (93%)	12 (6%)	3 (2%)	13	55
29	BF	198/210 (94%)	183 (92%)	15 (8%)	0	100	100
29	DF	198/210 (94%)	175 (88%)	23 (12%)	0	100	100
30	BG	179/182 (98%)	158 (88%)	17 (10%)	4 (2%)	8	45
30	DG	178/182 (98%)	150 (84%)	28 (16%)	0	100	100
31	BH	172/180 (96%)	160 (93%)	12 (7%)	0	100	100
31	DH	172/180 (96%)	153 (89%)	17 (10%)	2 (1%)	16	60
32	BI	145/148 (98%)	116 (80%)	25 (17%)	4 (3%)	6	37
32	DI	144/148 (97%)	119 (83%)	23 (16%)	2 (1%)	14	57
33	BN	138/140 (99%)	124 (90%)	11 (8%)	3 (2%)	8	45
33	DN	138/140 (99%)	117 (85%)	19 (14%)	2 (1%)	14	57
34	BO	120/122 (98%)	113 (94%)	6 (5%)	1 (1%)	24	69
34	DO	120/122 (98%)	112 (93%)	8 (7%)	0	100	100
35	BP	147/150 (98%)	128 (87%)	17 (12%)	2 (1%)	14	57
35	DP	147/150 (98%)	130 (88%)	15 (10%)	2 (1%)	14	57
36	BQ	139/141 (99%)	127 (91%)	10 (7%)	2 (1%)	14	57
36	DQ	139/141 (99%)	121 (87%)	18 (13%)	0	100	100
37	BR	116/118 (98%)	107 (92%)	9 (8%)	0	100	100
37	DR	116/118 (98%)	102 (88%)	14 (12%)	0	100	100
38	BS	108/112 (96%)	93 (86%)	12 (11%)	3 (3%)	6	37
38	DS	108/112 (96%)	88 (82%)	18 (17%)	2 (2%)	10	50
39	BT	130/146 (89%)	124 (95%)	6 (5%)	0	100	100
39	DT	128/146 (88%)	119 (93%)	9 (7%)	0	100	100
40	BU	114/118 (97%)	111 (97%)	3 (3%)	0	100	100
40	DU	114/118 (97%)	107 (94%)	7 (6%)	0	100	100
41	BV	98/101 (97%)	93 (95%)	5 (5%)	0	100	100
41	DV	98/101 (97%)	89 (91%)	9 (9%)	0	100	100
42	BW	110/113 (97%)	104 (94%)	6 (6%)	0	100	100
42	DW	109/113 (96%)	97 (89%)	12 (11%)	0	100	100
43	BX	93/96 (97%)	87 (94%)	6 (6%)	0	100	100
43	DX	93/96 (97%)	84 (90%)	9 (10%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
44	BY	105/110 (96%)	94 (90%)	10 (10%)	1 (1%)	19	65
44	DY	105/110 (96%)	96 (91%)	8 (8%)	1 (1%)	19	65
45	BZ	184/206 (89%)	161 (88%)	21 (11%)	2 (1%)	17	62
45	DZ	187/206 (91%)	163 (87%)	21 (11%)	3 (2%)	12	54
46	B0	74/85 (87%)	69 (93%)	5 (7%)	0	100	100
46	D0	75/85 (88%)	67 (89%)	8 (11%)	0	100	100
47	B1	95/98 (97%)	90 (95%)	4 (4%)	1 (1%)	17	62
47	D1	95/98 (97%)	91 (96%)	4 (4%)	0	100	100
48	B2	68/72 (94%)	62 (91%)	5 (7%)	1 (2%)	13	55
48	D2	69/72 (96%)	60 (87%)	9 (13%)	0	100	100
49	B3	57/60 (95%)	54 (95%)	2 (4%)	1 (2%)	11	51
49	D3	56/60 (93%)	52 (93%)	4 (7%)	0	100	100
50	B4	44/71 (62%)	36 (82%)	8 (18%)	0	100	100
50	D4	44/71 (62%)	34 (77%)	9 (20%)	1 (2%)	8	44
51	B5	57/60 (95%)	52 (91%)	5 (9%)	0	100	100
51	D5	57/60 (95%)	53 (93%)	4 (7%)	0	100	100
52	B6	51/54 (94%)	49 (96%)	2 (4%)	0	100	100
52	D6	51/54 (94%)	45 (88%)	6 (12%)	0	100	100
53	B7	46/49 (94%)	43 (94%)	1 (2%)	2 (4%)	3	25
53	D7	46/49 (94%)	41 (89%)	4 (9%)	1 (2%)	8	45
54	B8	62/65 (95%)	58 (94%)	4 (6%)	0	100	100
54	D8	62/65 (95%)	57 (92%)	5 (8%)	0	100	100
55	B9	34/37 (92%)	33 (97%)	1 (3%)	0	100	100
55	D9	33/37 (89%)	32 (97%)	1 (3%)	0	100	100
All	All	11478/12268 (94%)	10072 (88%)	1276 (11%)	130 (1%)	17	62

All (130) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	77	ALA
3	AC	99	VAL
3	AC	100	ALA
3	AC	157	ILE
4	AD	110	PHE

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Mol	Chain	Res	Type
9	AI	118	LYS
10	AJ	56	HIS
16	AP	53	VAL
17	AQ	49	GLU
22	AY	69	VAL
32	BI	107	VAL
2	CB	15	VAL
5	CE	73	ASN
9	CI	54	ASP
13	CM	7	VAL
13	CM	45	VAL
16	CP	44	THR
17	CQ	14	LYS
20	CT	46	GLU
4	AD	153	ARG
7	AG	147	ALA
9	AI	23	ASN
10	AJ	94	VAL
11	AK	13	GLN
13	AM	50	GLU
20	AT	10	LEU
20	AT	71	THR
2	CB	23	ARG
5	CE	8	GLU
9	CI	119	ALA
13	CM	10	PRO
16	CP	16	HIS
20	CT	96	GLY
2	AB	10	LEU
9	AI	103	THR
13	AM	49	THR
13	AM	84	ILE
16	AP	49	LEU
30	BG	14	GLU
30	BG	47	LYS
32	BI	75	LEU
32	BI	105	HIS
33	BN	19	GLU
38	BS	101	LEU
45	BZ	165	VAL
47	B1	83	GLU
2	CB	22	LYS

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Mol	Chain	Res	Type
4	CD	7	PRO
4	CD	177	ASP
5	CE	9	LYS
9	CI	21	PRO
12	CL	26	ALA
16	CP	15	PRO
16	CP	53	VAL
20	CT	95	ALA
33	DN	47	ALA
3	AC	111	LEU
4	AD	15	GLU
12	AL	12	ARG
12	AL	26	ALA
30	BG	82	LEU
33	BN	5	VAL
35	BP	36	LYS
36	BQ	135	ASP
48	B2	52	ASP
53	B7	46	VAL
4	CD	176	LEU
5	CE	98	THR
5	CE	146	ALA
9	CI	88	TYR
13	CM	66	LEU
31	DH	71	LEU
38	DS	62	LYS
4	AD	166	LYS
28	BE	118	LYS
30	BG	115	ARG
33	BN	4	TYR
38	BS	102	ALA
53	B7	45	ALA
10	CJ	89	ASP
10	CJ	90	LEU
13	CM	51	ALA
32	DI	10	GLU
44	DY	2	ARG
16	AP	79	VAL
19	AS	5	LEU
35	BP	141	ALA
44	BY	2	ARG
2	CB	177	ALA

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Mol	Chain	Res	Type
4	CD	5	ILE
7	CG	55	GLY
13	CM	63	THR
14	CN	14	PRO
27	DD	3	VAL
27	DD	275	LYS
31	DH	92	ILE
32	DI	107	VAL
33	DN	129	PRO
35	DP	53	GLY
38	DS	63	THR
53	D7	46	VAL
28	BE	52	LEU
32	BI	133	HIS
10	CJ	34	VAL
28	DE	52	LEU
45	DZ	128	VAL
4	AD	44	GLY
8	AH	57	PRO
38	BS	85	VAL
45	BZ	161	VAL
2	CB	239	VAL
45	DZ	161	VAL
22	AY	70	ILE
28	BE	72	VAL
28	BE	73	GLU
34	BO	48	PRO
2	CB	131	PRO
12	CL	25	PRO
50	D4	33	VAL
10	AJ	34	VAL
13	AM	7	VAL
36	BQ	27	VAL
49	B3	59	VAL
13	CM	40	ASN
28	DE	72	VAL
45	DZ	47	VAL
4	CD	197	PRO
10	AJ	91	PRO
28	DE	30	PRO
35	DP	72	PRO

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	AB	180/220 (82%)	127 (71%)	53 (29%)	0	1
2	CB	181/220 (82%)	132 (73%)	49 (27%)	0	2
3	AC	112/188 (60%)	89 (80%)	23 (20%)	1	7
3	CC	114/188 (61%)	96 (84%)	18 (16%)	3	15
4	AD	139/181 (77%)	112 (81%)	27 (19%)	2	9
4	CD	142/181 (78%)	112 (79%)	30 (21%)	1	7
5	AE	108/123 (88%)	77 (71%)	31 (29%)	0	1
5	CE	109/123 (89%)	84 (77%)	25 (23%)	1	4
6	AF	77/90 (86%)	64 (83%)	13 (17%)	2	13
6	CF	76/90 (84%)	61 (80%)	15 (20%)	1	8
7	AG	103/127 (81%)	83 (81%)	20 (19%)	2	9
7	CG	102/127 (80%)	78 (76%)	24 (24%)	1	4
8	AH	103/119 (87%)	85 (82%)	18 (18%)	2	12
8	CH	104/119 (87%)	89 (86%)	15 (14%)	4	19
9	AI	64/99 (65%)	55 (86%)	9 (14%)	4	20
9	CI	62/99 (63%)	52 (84%)	10 (16%)	3	14
10	AJ	52/92 (56%)	38 (73%)	14 (27%)	0	2
10	CJ	52/92 (56%)	36 (69%)	16 (31%)	0	1
11	AK	83/99 (84%)	60 (72%)	23 (28%)	0	1
11	CK	81/99 (82%)	61 (75%)	20 (25%)	1	3
12	AL	92/109 (84%)	73 (79%)	19 (21%)	1	7
12	CL	91/109 (84%)	71 (78%)	20 (22%)	1	6
13	AM	66/101 (65%)	44 (67%)	22 (33%)	0	0
13	CM	62/101 (61%)	39 (63%)	23 (37%)	0	0
14	AN	46/50 (92%)	40 (87%)	6 (13%)	5	24
14	CN	45/50 (90%)	30 (67%)	15 (33%)	0	0

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
15	AO	77/80 (96%)	61 (79%)	16 (21%)	1	7
15	CO	77/80 (96%)	64 (83%)	13 (17%)	2	13
16	AP	63/74 (85%)	44 (70%)	19 (30%)	0	1
16	CP	65/74 (88%)	49 (75%)	16 (25%)	1	3
17	AQ	94/97 (97%)	79 (84%)	15 (16%)	3	14
17	CQ	93/97 (96%)	77 (83%)	16 (17%)	2	12
18	AR	49/77 (64%)	41 (84%)	8 (16%)	3	14
18	CR	49/77 (64%)	36 (74%)	13 (26%)	0	2
19	AS	43/80 (54%)	34 (79%)	9 (21%)	1	7
19	CS	42/80 (52%)	28 (67%)	14 (33%)	0	0
20	AT	66/82 (80%)	47 (71%)	19 (29%)	0	1
20	CT	72/82 (88%)	56 (78%)	16 (22%)	1	5
21	AU	20/22 (91%)	14 (70%)	6 (30%)	0	1
21	CU	14/22 (64%)	13 (93%)	1 (7%)	18	57
22	AY	108/115 (94%)	74 (68%)	34 (32%)	0	1
27	BD	214/218 (98%)	169 (79%)	45 (21%)	1	7
27	DD	215/218 (99%)	167 (78%)	48 (22%)	1	5
28	BE	163/166 (98%)	126 (77%)	37 (23%)	1	5
28	DE	163/166 (98%)	128 (78%)	35 (22%)	1	6
29	BF	158/166 (95%)	123 (78%)	35 (22%)	1	5
29	DF	159/166 (96%)	128 (80%)	31 (20%)	2	9
30	BG	128/156 (82%)	103 (80%)	25 (20%)	2	9
30	DG	127/156 (81%)	95 (75%)	32 (25%)	1	2
31	BH	141/148 (95%)	113 (80%)	28 (20%)	1	8
31	DH	141/148 (95%)	111 (79%)	30 (21%)	1	7
32	BI	105/124 (85%)	75 (71%)	30 (29%)	0	1
32	DI	104/124 (84%)	76 (73%)	28 (27%)	0	2
33	BN	117/119 (98%)	93 (80%)	24 (20%)	1	7
33	DN	117/119 (98%)	90 (77%)	27 (23%)	1	4
34	BO	98/100 (98%)	73 (74%)	25 (26%)	1	2
34	DO	98/100 (98%)	70 (71%)	28 (29%)	0	1

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
35	BP	114/116 (98%)	87 (76%)	27 (24%)	1	4
35	DP	114/116 (98%)	90 (79%)	24 (21%)	1	7
36	BQ	111/111 (100%)	91 (82%)	20 (18%)	2	11
36	DQ	111/111 (100%)	93 (84%)	18 (16%)	3	14
37	BR	101/101 (100%)	79 (78%)	22 (22%)	1	6
37	DR	101/101 (100%)	79 (78%)	22 (22%)	1	6
38	BS	84/88 (96%)	66 (79%)	18 (21%)	1	6
38	DS	86/88 (98%)	68 (79%)	18 (21%)	1	7
39	BT	111/127 (87%)	90 (81%)	21 (19%)	2	10
39	DT	110/127 (87%)	82 (74%)	28 (26%)	1	2
40	BU	93/94 (99%)	77 (83%)	16 (17%)	2	12
40	DU	93/94 (99%)	77 (83%)	16 (17%)	2	12
41	BV	80/82 (98%)	66 (82%)	14 (18%)	2	12
41	DV	81/82 (99%)	56 (69%)	25 (31%)	0	1
42	BW	91/92 (99%)	71 (78%)	20 (22%)	1	6
42	DW	89/92 (97%)	74 (83%)	15 (17%)	2	13
43	BX	75/78 (96%)	63 (84%)	12 (16%)	3	14
43	DX	73/78 (94%)	61 (84%)	12 (16%)	3	13
44	BY	80/91 (88%)	63 (79%)	17 (21%)	1	7
44	DY	79/91 (87%)	59 (75%)	20 (25%)	1	2
45	BZ	156/179 (87%)	128 (82%)	28 (18%)	2	11
45	DZ	152/179 (85%)	119 (78%)	33 (22%)	1	6
46	B0	59/67 (88%)	47 (80%)	12 (20%)	1	7
46	D0	61/67 (91%)	47 (77%)	14 (23%)	1	4
47	B1	78/83 (94%)	61 (78%)	17 (22%)	1	6
47	D1	78/83 (94%)	58 (74%)	20 (26%)	0	2
48	B2	65/67 (97%)	49 (75%)	16 (25%)	1	3
48	D2	63/67 (94%)	50 (79%)	13 (21%)	1	7
49	B3	49/52 (94%)	44 (90%)	5 (10%)	9	36
49	D3	49/52 (94%)	40 (82%)	9 (18%)	2	10
50	B4	39/63 (62%)	28 (72%)	11 (28%)	0	1

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
50	D4	39/63 (62%)	25 (64%)	14 (36%)	0	0
51	B5	50/52 (96%)	41 (82%)	9 (18%)	2	11
51	D5	49/52 (94%)	39 (80%)	10 (20%)	1	7
52	B6	50/52 (96%)	34 (68%)	16 (32%)	0	0
52	D6	48/52 (92%)	38 (79%)	10 (21%)	1	7
53	B7	41/42 (98%)	32 (78%)	9 (22%)	1	6
53	D7	38/42 (90%)	30 (79%)	8 (21%)	1	7
54	B8	52/55 (94%)	45 (86%)	7 (14%)	5	22
54	D8	52/55 (94%)	43 (83%)	9 (17%)	2	12
55	B9	32/34 (94%)	26 (81%)	6 (19%)	2	10
55	D9	32/34 (94%)	25 (78%)	7 (22%)	1	6
All	All	8835/10181 (87%)	6886 (78%)	1949 (22%)	1	5

All (1949) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	15	VAL
2	AB	16	HIS
2	AB	17	PHE
2	AB	21	ARG
2	AB	23	ARG
2	AB	24	TRP
2	AB	44	LEU
2	AB	45	GLN
2	AB	48	MET
2	AB	49	GLU
2	AB	51	LEU
2	AB	60	ASP
2	AB	69	LEU
2	AB	71	VAL
2	AB	80	ILE
2	AB	82	ARG
2	AB	86	GLU
2	AB	87	ARG
2	AB	90	MET
2	AB	93	VAL
2	AB	107	THR
2	AB	108	ILE

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Mol	Chain	Res	Type
2	AB	118	LEU
2	AB	119	GLU
2	AB	121	LEU
2	AB	126	GLU
2	AB	136	VAL
2	AB	137	ARG
2	AB	140	HIS
2	AB	145	LEU
2	AB	149	LEU
2	AB	153	ARG
2	AB	155	LEU
2	AB	156	LYS
2	AB	170	GLU
2	AB	172	ILE
2	AB	178	ARG
2	AB	185	ILE
2	AB	187	LEU
2	AB	192	SER
2	AB	195	ASP
2	AB	197	VAL
2	AB	200	ILE
2	AB	206	ASP
2	AB	208	ILE
2	AB	209	ARG
2	AB	210	SER
2	AB	215	LEU
2	AB	221	LEU
2	AB	230	VAL
2	AB	231	GLU
2	AB	236	TYR
2	AB	238	LEU
3	AC	3	ASN
3	AC	12	LEU
3	AC	16	ARG
3	AC	31	HIS
3	AC	32	LEU
3	AC	43	LEU
3	AC	47	LEU
3	AC	52	LEU
3	AC	104	GLN
3	AC	112	SER
3	AC	118	GLN

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Mol	Chain	Res	Type
3	AC	126	ARG
3	AC	131	ARG
3	AC	134	ILE
3	AC	136	GLN
3	AC	141	VAL
3	AC	175	LEU
3	AC	179	ARG
3	AC	184	TYR
3	AC	188	LEU
3	AC	192	THR
3	AC	193	TYR
3	AC	202	ILE
4	AD	8	VAL
4	AD	12	CYS
4	AD	13	ARG
4	AD	15	GLU
4	AD	26	CYS
4	AD	33	MET
4	AD	35	ARG
4	AD	36	ARG
4	AD	57	ARG
4	AD	58	LEU
4	AD	59	ARG
4	AD	65	ARG
4	AD	107	ARG
4	AD	110	PHE
4	AD	122	ARG
4	AD	126	ILE
4	AD	127	THR
4	AD	134	ASP
4	AD	135	LEU
4	AD	138	TYR
4	AD	155	LEU
4	AD	158	ILE
4	AD	175	SER
4	AD	188	LEU
4	AD	194	LEU
4	AD	200	GLU
4	AD	201	GLN
5	AE	11	ILE
5	AE	16	THR
5	AE	18	ARG

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Mol	Chain	Res	Type
5	AE	27	ARG
5	AE	38	GLN
5	AE	41	VAL
5	AE	47	LYS
5	AE	51	VAL
5	AE	53	LEU
5	AE	60	TYR
5	AE	65	ASN
5	AE	66	MET
5	AE	67	VAL
5	AE	73	ASN
5	AE	75	THR
5	AE	76	ILE
5	AE	78	HIS
5	AE	79	GLU
5	AE	82	VAL
5	AE	83	GLU
5	AE	87	SER
5	AE	89	ILE
5	AE	91	LEU
5	AE	100	VAL
5	AE	112	LEU
5	AE	117	ASP
5	AE	120	THR
5	AE	135	THR
5	AE	137	GLU
5	AE	147	ASP
5	AE	149	GLU
6	AF	1	MET
6	AF	14	LEU
6	AF	25	ILE
6	AF	36	ARG
6	AF	55	ASP
6	AF	57	GLN
6	AF	64	GLN
6	AF	65	VAL
6	AF	70	ASP
6	AF	74	ASP
6	AF	82	ARG
6	AF	89	MET
6	AF	98	LEU
7	AG	6	ARG

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Mol	Chain	Res	Type
7	AG	12	LEU
7	AG	15	ASP
7	AG	21	VAL
7	AG	27	ILE
7	AG	32	ARG
7	AG	41	ARG
7	AG	51	GLN
7	AG	59	LEU
7	AG	61	VAL
7	AG	74	GLU
7	AG	89	MET
7	AG	104	LEU
7	AG	113	GLU
7	AG	120	ILE
7	AG	125	MET
7	AG	138	LYS
7	AG	142	GLU
7	AG	144	MET
7	AG	155	ARG
8	AH	21	LYS
8	AH	24	THR
8	AH	26	VAL
8	AH	35	ILE
8	AH	52	ASP
8	AH	60	ARG
8	AH	63	LEU
8	AH	68	ARG
8	AH	78	GLN
8	AH	83	ILE
8	AH	84	ARG
8	AH	91	ARG
8	AH	99	GLU
8	AH	107	LEU
8	AH	109	ILE
8	AH	114	THR
8	AH	127	LEU
8	AH	138	TRP
9	AI	11	LYS
9	AI	17	VAL
9	AI	31	GLN
9	AI	65	VAL
9	AI	83	ARG

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Mol	Chain	Res	Type
9	AI	107	ARG
9	AI	108	VAL
9	AI	114	TYR
9	AI	124	GLN
10	AJ	16	LEU
10	AJ	19	SER
10	AJ	51	ARG
10	AJ	54	PHE
10	AJ	55	LYS
10	AJ	62	HIS
10	AJ	65	LEU
10	AJ	66	ARG
10	AJ	67	THR
10	AJ	68	HIS
10	AJ	94	VAL
10	AJ	96	ILE
10	AJ	97	GLU
10	AJ	100	THR
11	AK	12	ARG
11	AK	13	GLN
11	AK	14	VAL
11	AK	25	TYR
11	AK	29	ILE
11	AK	43	SER
11	AK	48	ILE
11	AK	51	LYS
11	AK	54	ARG
11	AK	62	GLN
11	AK	63	LEU
11	AK	70	LYS
11	AK	75	TYR
11	AK	81	ASP
11	AK	82	VAL
11	AK	84	VAL
11	AK	87	THR
11	AK	96	ARG
11	AK	104	GLN
11	AK	105	VAL
11	AK	107	SER
11	AK	117	ASN
11	AK	120	ARG
12	AL	33	ARG

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Mol	Chain	Res	Type
12	AL	39	VAL
12	AL	44	THR
12	AL	52	LEU
12	AL	53	ARG
12	AL	54	LYS
12	AL	55	VAL
12	AL	60	LEU
12	AL	61	THR
12	AL	66	VAL
12	AL	67	THR
12	AL	81	SER
12	AL	84	LEU
12	AL	97	ARG
12	AL	104	VAL
12	AL	114	LYS
12	AL	115	LYS
12	AL	118	SER
12	AL	124	LYS
13	AM	3	ARG
13	AM	4	ILE
13	AM	14	ARG
13	AM	20	THR
13	AM	47	ASP
13	AM	49	THR
13	AM	59	TYR
13	AM	60	VAL
13	AM	64	TRP
13	AM	69	GLU
13	AM	70	LEU
13	AM	78	ILE
13	AM	98	VAL
13	AM	99	ARG
13	AM	102	ARG
13	AM	104	ARG
13	AM	108	ARG
13	AM	109	THR
13	AM	110	ARG
13	AM	114	ARG
13	AM	115	LYS
13	AM	116	THR
14	AN	7	ILE
14	AN	18	VAL

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Mol	Chain	Res	Type
14	AN	23	ARG
14	AN	33	VAL
14	AN	41	ARG
14	AN	44	LEU
15	AO	3	ILE
15	AO	4	THR
15	AO	7	GLU
15	AO	13	GLN
15	AO	17	ARG
15	AO	26	GLU
15	AO	28	GLN
15	AO	35	ARG
15	AO	39	LEU
15	AO	47	LYS
15	AO	64	ARG
15	AO	65	ARG
15	AO	71	GLN
15	AO	73	GLU
15	AO	87	ILE
15	AO	88	ARG
16	AP	1	MET
16	AP	8	ARG
16	AP	11	SER
16	AP	20	VAL
16	AP	22	THR
16	AP	25	ARG
16	AP	27	LYS
16	AP	32	TYR
16	AP	40	ASP
16	AP	45	THR
16	AP	48	TRP
16	AP	49	LEU
16	AP	53	VAL
16	AP	55	ARG
16	AP	61	SER
16	AP	67	THR
16	AP	69	THR
16	AP	72	ARG
16	AP	76	GLN
17	AQ	6	LEU
17	AQ	14	LYS
17	AQ	18	THR

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Mol	Chain	Res	Type
17	AQ	21	VAL
17	AQ	24	GLU
17	AQ	29	HIS
17	AQ	35	VAL
17	AQ	48	GLU
17	AQ	57	VAL
17	AQ	60	ILE
17	AQ	68	ARG
17	AQ	77	VAL
17	AQ	79	SER
17	AQ	89	LEU
17	AQ	100	LYS
18	AR	29	PHE
18	AR	31	LEU
18	AR	32	ARG
18	AR	35	ARG
18	AR	47	THR
18	AR	55	ARG
18	AR	58	LEU
18	AR	69	THR
19	AS	7	LYS
19	AS	31	ILE
19	AS	33	THR
19	AS	37	ARG
19	AS	44	MET
19	AS	62	ILE
19	AS	66	MET
19	AS	70	LYS
19	AS	79	THR
20	AT	8	ARG
20	AT	10	LEU
20	AT	13	LEU
20	AT	19	SER
20	AT	20	LEU
20	AT	24	LEU
20	AT	30	LYS
20	AT	31	SER
20	AT	36	LEU
20	AT	39	LYS
20	AT	51	GLU
20	AT	56	MET
20	AT	62	LEU

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Mol	Chain	Res	Type
20	AT	73	HIS
20	AT	74	LYS
20	AT	75	ASN
20	AT	80	ARG
20	AT	82	SER
20	AT	84	LEU
21	AU	12	LYS
21	AU	15	ARG
21	AU	17	THR
21	AU	20	LYS
21	AU	24	ARG
21	AU	26	LYS
22	AY	6	ARG
22	AY	10	ILE
22	AY	14	GLU
22	AY	18	THR
22	AY	33	THR
22	AY	40	ARG
22	AY	43	ILE
22	AY	44	ARG
22	AY	48	LEU
22	AY	54	GLU
22	AY	57	LEU
22	AY	65	SER
22	AY	67	ASP
22	AY	71	VAL
22	AY	73	LYS
22	AY	80	GLN
22	AY	81	GLU
22	AY	88	LEU
22	AY	91	LEU
22	AY	94	MET
22	AY	97	GLU
22	AY	103	LYS
22	AY	106	ARG
22	AY	108	THR
22	AY	112	ARG
22	AY	117	ARG
22	AY	118	ARG
22	AY	119	LEU
22	AY	122	LYS
22	AY	124	GLN

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Mol	Chain	Res	Type
22	AY	125	LYS
22	AY	128	VAL
22	AY	131	MET
22	AY	132	ARG
27	BD	3	VAL
27	BD	12	SER
27	BD	13	ARG
27	BD	14	ARG
27	BD	18	VAL
27	BD	27	THR
27	BD	31	LYS
27	BD	35	LYS
27	BD	40	THR
27	BD	54	ARG
27	BD	61	LEU
27	BD	69	ARG
27	BD	71	ASP
27	BD	72	LYS
27	BD	94	LEU
27	BD	103	ARG
27	BD	104	TYR
27	BD	106	ILE
27	BD	112	GLN
27	BD	113	VAL
27	BD	116	GLN
27	BD	138	VAL
27	BD	142	VAL
27	BD	147	LEU
27	BD	150	LYS
27	BD	155	LEU
27	BD	164	GLN
27	BD	181	GLU
27	BD	182	LEU
27	BD	192	THR
27	BD	193	VAL
27	BD	200	ASP
27	BD	208	LYS
27	BD	211	ARG
27	BD	213	ARG
27	BD	217	ARG
27	BD	221	VAL
27	BD	229	VAL

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Mol	Chain	Res	Type
27	BD	239	ARG
27	BD	242	ARG
27	BD	257	LEU
27	BD	260	ARG
27	BD	261	LYS
27	BD	271	ILE
27	BD	274	ARG
28	BE	2	LYS
28	BE	7	VAL
28	BE	9	VAL
28	BE	12	THR
28	BE	13	ARG
28	BE	16	ARG
28	BE	21	VAL
28	BE	24	THR
28	BE	33	VAL
28	BE	34	VAL
28	BE	39	PRO
28	BE	47	VAL
28	BE	49	LEU
28	BE	52	LEU
28	BE	61	ARG
28	BE	63	LEU
28	BE	72	VAL
28	BE	75	VAL
28	BE	76	ARG
28	BE	77	ILE
28	BE	79	ARG
28	BE	82	ARG
28	BE	91	VAL
28	BE	93	VAL
28	BE	113	PHE
28	BE	116	VAL
28	BE	117	MET
28	BE	119	ARG
28	BE	144	ARG
28	BE	154	LYS
28	BE	163	GLU
28	BE	170	LEU
28	BE	173	VAL
28	BE	175	VAL
28	BE	182	LEU

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Mol	Chain	Res	Type
28	BE	200	GLU
28	BE	202	LYS
29	BF	12	LEU
29	BF	15	SER
29	BF	19	GLU
29	BF	32	LEU
29	BF	33	LEU
29	BF	38	ARG
29	BF	50	SER
29	BF	57	VAL
29	BF	60	SER
29	BF	62	ARG
29	BF	64	ILE
29	BF	74	ARG
29	BF	77	ASP
29	BF	82	ILE
29	BF	106	ARG
29	BF	129	PHE
29	BF	135	LYS
29	BF	136	THR
29	BF	137	LYS
29	BF	140	LEU
29	BF	152	GLU
29	BF	158	THR
29	BF	161	GLU
29	BF	162	LEU
29	BF	170	LEU
29	BF	175	THR
29	BF	189	THR
29	BF	190	GLU
29	BF	191	ARG
29	BF	194	MET
29	BF	196	LEU
29	BF	197	ASP
29	BF	200	GLU
29	BF	201	VAL
29	BF	205	ARG
30	BG	5	VAL
30	BG	7	LEU
30	BG	9	ARG
30	BG	13	GLU
30	BG	22	ARG

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Mol	Chain	Res	Type
30	BG	28	VAL
30	BG	35	GLU
30	BG	39	ILE
30	BG	43	LEU
30	BG	60	LEU
30	BG	64	THR
30	BG	91	ARG
30	BG	103	LEU
30	BG	126	ASP
30	BG	128	ARG
30	BG	135	LEU
30	BG	139	LEU
30	BG	148	MET
30	BG	149	VAL
30	BG	152	LEU
30	BG	153	ARG
30	BG	155	MET
30	BG	161	THR
30	BG	165	THR
30	BG	170	ARG
31	BH	3	ARG
31	BH	6	ARG
31	BH	10	PRO
31	BH	24	VAL
31	BH	39	PRO
31	BH	41	MET
31	BH	43	VAL
31	BH	44	VAL
31	BH	45	VAL
31	BH	56	SER
31	BH	62	LYS
31	BH	69	ARG
31	BH	70	THR
31	BH	71	LEU
31	BH	72	ILE
31	BH	84	SER
31	BH	98	LEU
31	BH	101	ARG
31	BH	107	VAL
31	BH	111	HIS
31	BH	122	THR
31	BH	129	THR

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Mol	Chain	Res	Type
31	BH	136	ILE
31	BH	139	GLN
31	BH	149	ARG
31	BH	158	HIS
31	BH	169	VAL
31	BH	171	LEU
32	BI	1	MET
32	BI	9	LEU
32	BI	15	VAL
32	BI	21	VAL
32	BI	28	ASN
32	BI	31	LEU
32	BI	33	ARG
32	BI	35	LEU
32	BI	40	THR
32	BI	41	GLU
32	BI	42	SER
32	BI	51	ILE
32	BI	57	ARG
32	BI	72	LEU
32	BI	73	GLU
32	BI	75	LEU
32	BI	76	THR
32	BI	78	THR
32	BI	79	ILE
32	BI	85	GLU
32	BI	86	THR
32	BI	87	LYS
32	BI	92	VAL
32	BI	102	SER
32	BI	108	THR
32	BI	114	LEU
32	BI	116	LEU
32	BI	123	LEU
32	BI	140	LEU
32	BI	147	GLN
33	BN	1	MET
33	BN	5	VAL
33	BN	12	ARG
33	BN	28	THR
33	BN	33	LEU
33	BN	34	LEU

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Mol	Chain	Res	Type
33	BN	35	ARG
33	BN	45	ASN
33	BN	48	MET
33	BN	60	ILE
33	BN	61	ARG
33	BN	62	VAL
33	BN	65	LYS
33	BN	67	LEU
33	BN	73	THR
33	BN	82	LEU
33	BN	85	ILE
33	BN	87	LEU
33	BN	89	LYS
33	BN	97	ARG
33	BN	99	LEU
33	BN	120	LEU
33	BN	121	LYS
33	BN	133	GLN
34	BO	10	VAL
34	BO	12	ASP
34	BO	17	ARG
34	BO	21	CYS
34	BO	22	ILE
34	BO	24	VAL
34	BO	29	ASN
34	BO	42	SER
34	BO	45	GLU
34	BO	52	VAL
34	BO	53	LYS
34	BO	68	GLU
34	BO	75	SER
34	BO	77	ILE
34	BO	86	ILE
34	BO	88	ASN
34	BO	91	LEU
34	BO	92	GLU
34	BO	94	ARG
34	BO	96	THR
34	BO	97	ARG
34	BO	104	ARG
34	BO	113	LYS
34	BO	114	ILE

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Mol	Chain	Res	Type
34	BO	116	SER
35	BP	1	MET
35	BP	21	ARG
35	BP	32	THR
35	BP	33	ARG
35	BP	42	SER
35	BP	46	LYS
35	BP	49	ARG
35	BP	52	GLU
35	BP	55	ARG
35	BP	56	SER
35	BP	57	THR
35	BP	58	THR
35	BP	59	LEU
35	BP	64	LYS
35	BP	65	ARG
35	BP	67	MET
35	BP	75	ILE
35	BP	90	ARG
35	BP	94	GLU
35	BP	99	LEU
35	BP	106	LEU
35	BP	112	LEU
35	BP	117	GLU
35	BP	119	GLU
35	BP	126	VAL
35	BP	148	LEU
35	BP	149	GLU
36	BQ	1	MET
36	BQ	7	MET
36	BQ	8	LYS
36	BQ	11	LYS
36	BQ	21	THR
36	BQ	22	LYS
36	BQ	35	VAL
36	BQ	37	LEU
36	BQ	45	GLN
36	BQ	46	GLN
36	BQ	75	THR
36	BQ	81	VAL
36	BQ	101	ARG
36	BQ	106	VAL

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Mol	Chain	Res	Type
36	BQ	109	VAL
36	BQ	110	THR
36	BQ	111	GLU
36	BQ	115	MET
36	BQ	127	ILE
36	BQ	134	ARG
37	BR	2	ARG
37	BR	6	SER
37	BR	9	LYS
37	BR	18	LEU
37	BR	28	LEU
37	BR	29	LEU
37	BR	36	THR
37	BR	44	LEU
37	BR	54	LEU
37	BR	59	ASP
37	BR	60	LEU
37	BR	63	ARG
37	BR	65	LEU
37	BR	67	LEU
37	BR	72	ASP
37	BR	75	LEU
37	BR	79	LEU
37	BR	86	ARG
37	BR	90	ARG
37	BR	100	LEU
37	BR	111	LEU
37	BR	114	VAL
38	BS	3	ARG
38	BS	14	VAL
38	BS	20	ARG
38	BS	21	THR
38	BS	25	ARG
38	BS	32	LEU
38	BS	35	ILE
38	BS	36	TYR
38	BS	42	ASP
38	BS	50	SER
38	BS	69	VAL
38	BS	73	LEU
38	BS	78	LEU
38	BS	88	ASP

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Mol	Chain	Res	Type
38	BS	95	HIS
38	BS	98	VAL
38	BS	101	LEU
38	BS	110	LEU
39	BT	1	MET
39	BT	6	LEU
39	BT	7	ILE
39	BT	13	ARG
39	BT	17	THR
39	BT	28	VAL
39	BT	35	LYS
39	BT	38	ASN
39	BT	39	ARG
39	BT	49	VAL
39	BT	51	ARG
39	BT	53	ARG
39	BT	64	ARG
39	BT	70	VAL
39	BT	85	LYS
39	BT	87	ASP
39	BT	89	VAL
39	BT	96	ARG
39	BT	113	LYS
39	BT	118	ARG
39	BT	119	LYS
40	BU	8	VAL
40	BU	13	LYS
40	BU	15	LYS
40	BU	31	SER
40	BU	36	ARG
40	BU	38	THR
40	BU	51	LYS
40	BU	55	ARG
40	BU	59	ARG
40	BU	60	LEU
40	BU	74	LEU
40	BU	83	LEU
40	BU	95	LEU
40	BU	104	GLN
40	BU	108	GLU
40	BU	112	ARG
41	BV	18	LEU

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Mol	Chain	Res	Type
41	BV	20	LEU
41	BV	21	ARG
41	BV	32	THR
41	BV	35	LEU
41	BV	43	GLU
41	BV	51	VAL
41	BV	52	VAL
41	BV	62	LEU
41	BV	70	ILE
41	BV	73	SER
41	BV	79	VAL
41	BV	82	ARG
41	BV	85	LYS
42	BW	1	MET
42	BW	2	GLU
42	BW	6	ILE
42	BW	11	ARG
42	BW	19	LEU
42	BW	23	LEU
42	BW	24	ILE
42	BW	29	LEU
42	BW	51	LEU
42	BW	60	ASN
42	BW	67	ASP
42	BW	78	GLU
42	BW	83	LYS
42	BW	90	ARG
42	BW	92	ARG
42	BW	97	LYS
42	BW	100	THR
42	BW	101	SER
42	BW	107	LEU
42	BW	111	HIS
43	BX	33	LYS
43	BX	38	GLU
43	BX	45	THR
43	BX	48	LYS
43	BX	57	LEU
43	BX	60	ARG
43	BX	65	ARG
43	BX	70	LEU
43	BX	72	LYS

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Mol	Chain	Res	Type
43	BX	73	ARG
43	BX	87	GLN
43	BX	92	LEU
44	BY	1	MET
44	BY	5	MET
44	BY	8	LYS
44	BY	9	LYS
44	BY	23	ARG
44	BY	34	LYS
44	BY	43	ASN
44	BY	47	LYS
44	BY	55	TYR
44	BY	70	SER
44	BY	72	VAL
44	BY	73	ARG
44	BY	83	THR
44	BY	90	LEU
44	BY	91	GLU
44	BY	97	ARG
44	BY	107	ASP
45	BZ	5	LEU
45	BZ	16	SER
45	BZ	18	LEU
45	BZ	19	ARG
45	BZ	25	PRO
45	BZ	31	ARG
45	BZ	32	HIS
45	BZ	41	LEU
45	BZ	46	LYS
45	BZ	56	VAL
45	BZ	57	ILE
45	BZ	67	LEU
45	BZ	72	ARG
45	BZ	74	VAL
45	BZ	76	LEU
45	BZ	82	ARG
45	BZ	86	VAL
45	BZ	87	ASP
45	BZ	91	LEU
45	BZ	129	SER
45	BZ	133	ILE
45	BZ	138	GLU

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Mol	Chain	Res	Type
45	BZ	142	SER
45	BZ	156	LYS
45	BZ	157	LEU
45	BZ	161	VAL
45	BZ	170	THR
45	BZ	181	GLU
46	B0	9	SER
46	B0	10	THR
46	B0	17	GLN
46	B0	20	ARG
46	B0	29	GLN
46	B0	32	ARG
46	B0	37	LEU
46	B0	38	VAL
46	B0	41	ARG
46	B0	46	LYS
46	B0	55	ARG
46	B0	63	VAL
47	B1	21	ARG
47	B1	26	ARG
47	B1	32	LYS
47	B1	33	LYS
47	B1	40	ARG
47	B1	46	LEU
47	B1	50	ARG
47	B1	51	VAL
47	B1	53	VAL
47	B1	58	ILE
47	B1	59	THR
47	B1	62	VAL
47	B1	65	SER
47	B1	81	LYS
47	B1	83	GLU
47	B1	86	SER
47	B1	95	LEU
48	B2	3	LEU
48	B2	16	LEU
48	B2	28	LYS
48	B2	30	ARG
48	B2	32	LEU
48	B2	34	GLU
48	B2	41	ILE

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Mol	Chain	Res	Type
48	B2	46	GLN
48	B2	47	ASN
48	B2	50	ILE
48	B2	51	ARG
48	B2	53	LEU
48	B2	55	ARG
48	B2	64	LEU
48	B2	68	ARG
48	B2	70	GLN
49	B3	6	VAL
49	B3	8	LEU
49	B3	23	LEU
49	B3	40	THR
49	B3	53	LEU
50	B4	1	MET
50	B4	5	ILE
50	B4	8	LYS
50	B4	22	ILE
50	B4	25	TYR
50	B4	27	THR
50	B4	30	GLU
50	B4	34	GLU
50	B4	37	SER
50	B4	39	CYS
50	B4	43	TYR
51	B5	6	VAL
51	B5	8	LYS
51	B5	16	ARG
51	B5	29	THR
51	B5	37	LYS
51	B5	40	LYS
51	B5	55	ARG
51	B5	57	VAL
51	B5	58	LEU
52	B6	6	ARG
52	B6	8	LYS
52	B6	9	LEU
52	B6	10	LEU
52	B6	13	CYS
52	B6	14	THR
52	B6	18	ARG
52	B6	23	THR

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Mol	Chain	Res	Type
52	B6	24	GLU
52	B6	27	LYS
52	B6	33	LYS
52	B6	37	ARG
52	B6	40	CYS
52	B6	44	ARG
52	B6	48	VAL
52	B6	49	HIS
53	B7	1	MET
53	B7	4	THR
53	B7	8	ASN
53	B7	14	LYS
53	B7	24	THR
53	B7	32	LYS
53	B7	43	THR
53	B7	44	PRO
53	B7	47	ARG
54	B8	15	LYS
54	B8	31	HIS
54	B8	34	TRP
54	B8	35	GLN
54	B8	37	SER
54	B8	58	ILE
54	B8	64	TYR
55	B9	2	LYS
55	B9	6	SER
55	B9	9	ARG
55	B9	18	ARG
55	B9	26	ILE
55	B9	36	GLN
2	CB	17	PHE
2	CB	21	ARG
2	CB	24	TRP
2	CB	30	ARG
2	CB	45	GLN
2	CB	48	MET
2	CB	50	GLU
2	CB	58	ILE
2	CB	60	ASP
2	CB	63	MET
2	CB	67	THR
2	CB	71	VAL

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Mol	Chain	Res	Type
2	CB	73	THR
2	CB	80	ILE
2	CB	87	ARG
2	CB	90	MET
2	CB	93	VAL
2	CB	101	MET
2	CB	105	PHE
2	CB	107	THR
2	CB	108	ILE
2	CB	111	ARG
2	CB	116	GLU
2	CB	119	GLU
2	CB	121	LEU
2	CB	122	PHE
2	CB	126	GLU
2	CB	127	ILE
2	CB	138	LEU
2	CB	140	HIS
2	CB	142	LEU
2	CB	153	ARG
2	CB	154	LEU
2	CB	158	LEU
2	CB	164	VAL
2	CB	174	VAL
2	CB	175	ARG
2	CB	185	ILE
2	CB	187	LEU
2	CB	191	ASP
2	CB	193	ASP
2	CB	198	ASP
2	CB	200	ILE
2	CB	205	ASP
2	CB	221	LEU
2	CB	222	ILE
2	CB	229	VAL
2	CB	230	VAL
2	CB	231	GLU
3	CC	5	ILE
3	CC	18	TRP
3	CC	30	ARG
3	CC	31	HIS
3	CC	46	GLU

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Mol	Chain	Res	Type
3	CC	47	LEU
3	CC	52	LEU
3	CC	57	ILE
3	CC	67	THR
3	CC	131	ARG
3	CC	132	ARG
3	CC	140	ARG
3	CC	153	VAL
3	CC	167	TRP
3	CC	178	LEU
3	CC	179	ARG
3	CC	193	TYR
3	CC	207	VAL
4	CD	5	ILE
4	CD	8	VAL
4	CD	10	ARG
4	CD	12	CYS
4	CD	15	GLU
4	CD	19	LEU
4	CD	26	CYS
4	CD	28	SER
4	CD	36	ARG
4	CD	58	LEU
4	CD	59	ARG
4	CD	65	ARG
4	CD	77	ASN
4	CD	97	LEU
4	CD	101	LEU
4	CD	106	TYR
4	CD	107	ARG
4	CD	119	GLN
4	CD	126	ILE
4	CD	127	THR
4	CD	135	LEU
4	CD	137	SER
4	CD	152	SER
4	CD	153	ARG
4	CD	156	GLU
4	CD	158	ILE
4	CD	162	LEU
4	CD	177	ASP
4	CD	188	LEU

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Mol	Chain	Res	Type
4	CD	201	GLN
5	CE	11	ILE
5	CE	13	ILE
5	CE	31	LEU
5	CE	37	ARG
5	CE	38	GLN
5	CE	41	VAL
5	CE	47	LYS
5	CE	51	VAL
5	CE	55	VAL
5	CE	71	LEU
5	CE	78	HIS
5	CE	81	GLU
5	CE	89	ILE
5	CE	90	VAL
5	CE	91	LEU
5	CE	101	ILE
5	CE	107	ARG
5	CE	112	LEU
5	CE	116	THR
5	CE	120	THR
5	CE	121	LYS
5	CE	126	ARG
5	CE	136	MET
5	CE	141	GLN
5	CE	153	LYS
6	CF	15	ASP
6	CF	19	LEU
6	CF	22	GLU
6	CF	25	ILE
6	CF	30	LEU
6	CF	36	ARG
6	CF	41	GLU
6	CF	42	GLU
6	CF	61	LEU
6	CF	63	TYR
6	CF	64	GLN
6	CF	70	ASP
6	CF	75	LEU
6	CF	80	ARG
6	CF	82	ARG
7	CG	12	LEU

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Mol	Chain	Res	Type
7	CG	21	VAL
7	CG	27	ILE
7	CG	38	LEU
7	CG	51	GLN
7	CG	52	GLU
7	CG	56	GLN
7	CG	57	GLU
7	CG	72	ARG
7	CG	75	VAL
7	CG	80	VAL
7	CG	85	TYR
7	CG	96	GLN
7	CG	98	SER
7	CG	101	LEU
7	CG	104	LEU
7	CG	106	GLN
7	CG	111	ARG
7	CG	113	GLU
7	CG	118	VAL
7	CG	124	LEU
7	CG	142	GLU
7	CG	146	GLU
7	CG	155	ARG
8	CH	3	THR
8	CH	12	ARG
8	CH	13	ILE
8	CH	37	ARG
8	CH	83	ILE
8	CH	84	ARG
8	CH	85	ARG
8	CH	99	GLU
8	CH	112	LEU
8	CH	119	LEU
8	CH	123	GLU
8	CH	129	VAL
8	CH	134	ILE
8	CH	137	VAL
8	CH	138	TRP
9	CI	11	LYS
9	CI	31	GLN
9	CI	36	TYR
9	CI	74	ILE

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Mol	Chain	Res	Type
9	CI	75	ASP
9	CI	86	VAL
9	CI	99	LEU
9	CI	107	ARG
9	CI	114	TYR
9	CI	124	GLN
10	CJ	8	LEU
10	CJ	13	HIS
10	CJ	16	LEU
10	CJ	19	SER
10	CJ	33	GLN
10	CJ	47	PHE
10	CJ	48	THR
10	CJ	49	VAL
10	CJ	55	LYS
10	CJ	59	SER
10	CJ	61	GLU
10	CJ	62	HIS
10	CJ	68	HIS
10	CJ	95	GLU
10	CJ	96	ILE
10	CJ	100	THR
11	CK	18	ARG
11	CK	24	SER
11	CK	30	VAL
11	CK	31	THR
11	CK	33	THR
11	CK	38	ASN
11	CK	48	ILE
11	CK	55	LYS
11	CK	57	THR
11	CK	63	LEU
11	CK	67	ASP
11	CK	70	LYS
11	CK	83	ILE
11	CK	95	ILE
11	CK	96	ARG
11	CK	98	LEU
11	CK	109	VAL
11	CK	111	ASP
11	CK	114	VAL
11	CK	119	CYS

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Mol	Chain	Res	Type
12	CL	6	THR
12	CL	24	VAL
12	CL	33	ARG
12	CL	39	VAL
12	CL	40	VAL
12	CL	43	VAL
12	CL	44	THR
12	CL	46	LYS
12	CL	52	LEU
12	CL	60	LEU
12	CL	66	VAL
12	CL	67	THR
12	CL	70	ILE
12	CL	79	GLU
12	CL	84	LEU
12	CL	92	ASP
12	CL	97	ARG
12	CL	99	HIS
12	CL	104	VAL
12	CL	112	ASP
13	CM	4	ILE
13	CM	17	VAL
13	CM	23	TYR
13	CM	27	LYS
13	CM	37	THR
13	CM	40	ASN
13	CM	43	THR
13	CM	47	ASP
13	CM	52	GLU
13	CM	60	VAL
13	CM	64	TRP
13	CM	65	LYS
13	CM	66	LEU
13	CM	70	LEU
13	CM	77	ASN
13	CM	88	ARG
13	CM	91	ARG
13	CM	102	ARG
13	CM	105	THR
13	CM	106	ASN
13	CM	108	ARG
13	CM	109	THR

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Mol	Chain	Res	Type
13	CM	110	ARG
14	CN	3	ARG
14	CN	4	LYS
14	CN	7	ILE
14	CN	13	THR
14	CN	17	LYS
14	CN	22	THR
14	CN	29	ARG
14	CN	31	ARG
14	CN	33	VAL
14	CN	40	CYS
14	CN	41	ARG
14	CN	42	ILE
14	CN	44	LEU
14	CN	56	VAL
14	CN	60	SER
15	CO	3	ILE
15	CO	13	GLN
15	CO	17	ARG
15	CO	26	GLU
15	CO	38	ARG
15	CO	39	LEU
15	CO	40	SER
15	CO	41	GLU
15	CO	65	ARG
15	CO	71	GLN
15	CO	72	ARG
15	CO	87	ILE
15	CO	88	ARG
16	CP	1	MET
16	CP	2	VAL
16	CP	6	LEU
16	CP	20	VAL
16	CP	21	VAL
16	CP	28	ARG
16	CP	29	ASP
16	CP	42	ARG
16	CP	51	VAL
16	CP	54	GLU
16	CP	60	LEU
16	CP	62	VAL
16	CP	67	THR

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Mol	Chain	Res	Type
16	CP	69	THR
16	CP	72	ARG
16	CP	76	GLN
17	CQ	7	THR
17	CQ	9	VAL
17	CQ	13	ASP
17	CQ	14	LYS
17	CQ	19	VAL
17	CQ	39	SER
17	CQ	49	GLU
17	CQ	50	LYS
17	CQ	63	ARG
17	CQ	68	ARG
17	CQ	72	ARG
17	CQ	74	LEU
17	CQ	77	VAL
17	CQ	79	SER
17	CQ	90	ILE
17	CQ	97	SER
18	CR	21	LYS
18	CR	31	LEU
18	CR	32	ARG
18	CR	35	ARG
18	CR	36	ASN
18	CR	37	VAL
18	CR	47	THR
18	CR	69	THR
18	CR	75	ILE
18	CR	76	LEU
18	CR	82	THR
18	CR	85	LEU
18	CR	86	VAL
19	CS	11	VAL
19	CS	12	ASP
19	CS	14	HIS
19	CS	22	LEU
19	CS	23	ASN
19	CS	32	LYS
19	CS	33	THR
19	CS	36	ARG
19	CS	53	ASN
19	CS	57	HIS

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Mol	Chain	Res	Type
19	CS	66	MET
19	CS	77	THR
19	CS	78	ARG
19	CS	79	THR
20	CT	4	LYS
20	CT	13	LEU
20	CT	14	LYS
20	CT	19	SER
20	CT	21	LYS
20	CT	50	GLU
20	CT	51	GLU
20	CT	56	MET
20	CT	71	THR
20	CT	72	LEU
20	CT	73	HIS
20	CT	75	ASN
20	CT	84	LEU
20	CT	90	GLN
20	CT	91	LEU
20	CT	93	GLU
21	CU	10	ARG
27	DD	3	VAL
27	DD	4	LYS
27	DD	10	THR
27	DD	12	SER
27	DD	27	THR
27	DD	30	GLU
27	DD	32	SER
27	DD	46	GLN
27	DD	58	HIS
27	DD	61	LEU
27	DD	64	ILE
27	DD	71	ASP
27	DD	72	LYS
27	DD	73	VAL
27	DD	94	LEU
27	DD	103	ARG
27	DD	105	ILE
27	DD	106	ILE
27	DD	111	LEU
27	DD	112	GLN
27	DD	113	VAL

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Mol	Chain	Res	Type
27	DD	126	GLN
27	DD	127	VAL
27	DD	131	LEU
27	DD	136	ILE
27	DD	138	VAL
27	DD	147	LEU
27	DD	150	LYS
27	DD	155	LEU
27	DD	165	ILE
27	DD	171	ASP
27	DD	176	ARG
27	DD	192	THR
27	DD	200	ASP
27	DD	202	LYS
27	DD	211	ARG
27	DD	215	LEU
27	DD	218	ARG
27	DD	229	VAL
27	DD	239	ARG
27	DD	242	ARG
27	DD	257	LEU
27	DD	259	THR
27	DD	260	ARG
27	DD	264	LYS
27	DD	270	ILE
27	DD	275	LYS
27	DD	276	LYS
28	DE	1	MET
28	DE	5	LEU
28	DE	9	VAL
28	DE	11	MET
28	DE	12	THR
28	DE	21	VAL
28	DE	24	THR
28	DE	34	VAL
28	DE	40	GLU
28	DE	45	THR
28	DE	49	LEU
28	DE	52	LEU
28	DE	63	LEU
28	DE	72	VAL
28	DE	75	VAL

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Mol	Chain	Res	Type
28	DE	77	ILE
28	DE	79	ARG
28	DE	82	ARG
28	DE	84	PHE
28	DE	89	ASP
28	DE	92	THR
28	DE	93	VAL
28	DE	113	PHE
28	DE	116	VAL
28	DE	119	ARG
28	DE	121	ASN
28	DE	144	ARG
28	DE	149	ARG
28	DE	154	LYS
28	DE	168	MET
28	DE	170	LEU
28	DE	179	GLU
28	DE	181	LEU
28	DE	182	LEU
28	DE	188	VAL
29	DF	6	VAL
29	DF	13	SER
29	DF	18	ARG
29	DF	23	ASP
29	DF	24	LEU
29	DF	33	LEU
29	DF	43	LYS
29	DF	68	LYS
29	DF	74	ARG
29	DF	78	ILE
29	DF	82	ILE
29	DF	98	SER
29	DF	99	TYR
29	DF	110	LEU
29	DF	112	MET
29	DF	126	VAL
29	DF	140	LEU
29	DF	149	ASP
29	DF	158	THR
29	DF	161	GLU
29	DF	162	LEU
29	DF	169	ASN

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Mol	Chain	Res	Type
29	DF	170	LEU
29	DF	174	VAL
29	DF	179	GLU
29	DF	183	VAL
29	DF	186	ILE
29	DF	195	ASP
29	DF	197	ASP
29	DF	200	GLU
29	DF	201	VAL
30	DG	9	ARG
30	DG	12	TYR
30	DG	13	GLU
30	DG	14	GLU
30	DG	18	GLU
30	DG	21	ARG
30	DG	33	ARG
30	DG	34	LEU
30	DG	39	ILE
30	DG	60	LEU
30	DG	63	ILE
30	DG	80	PHE
30	DG	88	ILE
30	DG	91	ARG
30	DG	101	ILE
30	DG	116	ASP
30	DG	128	ARG
30	DG	130	ASN
30	DG	133	LEU
30	DG	135	LEU
30	DG	138	GLN
30	DG	139	LEU
30	DG	140	ILE
30	DG	148	MET
30	DG	149	VAL
30	DG	150	ASP
30	DG	155	MET
30	DG	162	THR
30	DG	165	THR
30	DG	167	GLU
30	DG	170	ARG
30	DG	173	LEU
31	DH	3	ARG

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Mol	Chain	Res	Type
31	DH	7	LEU
31	DH	15	VAL
31	DH	17	VAL
31	DH	32	GLU
31	DH	41	MET
31	DH	43	VAL
31	DH	47	GLU
31	DH	59	ARG
31	DH	63	SER
31	DH	64	LEU
31	DH	69	ARG
31	DH	70	THR
31	DH	97	ARG
31	DH	104	GLU
31	DH	105	LEU
31	DH	121	ILE
31	DH	124	GLU
31	DH	127	GLU
31	DH	129	THR
31	DH	130	ARG
31	DH	134	SER
31	DH	136	ILE
31	DH	140	LYS
31	DH	148	ILE
31	DH	153	LYS
31	DH	158	HIS
31	DH	167	GLU
31	DH	169	VAL
31	DH	171	LEU
32	DI	1	MET
32	DI	2	LYS
32	DI	22	LYS
32	DI	25	TYR
32	DI	35	LEU
32	DI	37	VAL
32	DI	38	LEU
32	DI	41	GLU
32	DI	43	ASN
32	DI	57	ARG
32	DI	58	LEU
32	DI	61	ARG
32	DI	72	LEU

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Mol	Chain	Res	Type
32	DI	74	ASN
32	DI	75	LEU
32	DI	77	LEU
32	DI	78	THR
32	DI	85	GLU
32	DI	86	THR
32	DI	93	THR
32	DI	97	ILE
32	DI	116	LEU
32	DI	123	LEU
32	DI	127	VAL
32	DI	129	THR
32	DI	138	ILE
32	DI	140	LEU
32	DI	142	VAL
33	DN	1	MET
33	DN	9	VAL
33	DN	12	ARG
33	DN	32	THR
33	DN	33	LEU
33	DN	34	LEU
33	DN	37	LYS
33	DN	38	HIS
33	DN	43	THR
33	DN	48	MET
33	DN	55	VAL
33	DN	58	ASP
33	DN	60	ILE
33	DN	61	ARG
33	DN	62	VAL
33	DN	83	LYS
33	DN	87	LEU
33	DN	93	THR
33	DN	99	LEU
33	DN	106	MET
33	DN	119	ARG
33	DN	120	LEU
33	DN	127	ASP
33	DN	133	GLN
33	DN	137	LYS
33	DN	138	LEU
33	DN	140	VAL

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Mol	Chain	Res	Type
34	DO	7	TYR
34	DO	8	LEU
34	DO	10	VAL
34	DO	17	ARG
34	DO	23	ARG
34	DO	24	VAL
34	DO	28	SER
34	DO	32	TYR
34	DO	39	ILE
34	DO	44	LYS
34	DO	47	ILE
34	DO	58	VAL
34	DO	59	LYS
34	DO	62	VAL
34	DO	66	LYS
34	DO	69	ILE
34	DO	73	ASP
34	DO	75	SER
34	DO	78	ARG
34	DO	82	ASN
34	DO	85	VAL
34	DO	86	ILE
34	DO	88	ASN
34	DO	89	ASN
34	DO	94	ARG
34	DO	99	PHE
34	DO	115	VAL
34	DO	117	LEU
35	DP	21	ARG
35	DP	30	THR
35	DP	39	LYS
35	DP	42	SER
35	DP	46	LYS
35	DP	50	ARG
35	DP	55	ARG
35	DP	56	SER
35	DP	58	THR
35	DP	59	LEU
35	DP	64	LYS
35	DP	75	ILE
35	DP	92	GLU
35	DP	96	THR

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Mol	Chain	Res	Type
35	DP	100	LEU
35	DP	106	LEU
35	DP	111	ARG
35	DP	112	LEU
35	DP	119	GLU
35	DP	133	SER
35	DP	135	LEU
35	DP	139	LYS
35	DP	144	GLU
35	DP	146	VAL
36	DQ	1	MET
36	DQ	5	ARG
36	DQ	6	ARG
36	DQ	11	LYS
36	DQ	16	ARG
36	DQ	21	THR
36	DQ	45	GLN
36	DQ	54	MET
36	DQ	55	VAL
36	DQ	56	ARG
36	DQ	60	ARG
36	DQ	63	LYS
36	DQ	79	LEU
36	DQ	81	VAL
36	DQ	90	VAL
36	DQ	106	VAL
36	DQ	110	THR
36	DQ	112	GLU
37	DR	6	SER
37	DR	9	LYS
37	DR	18	LEU
37	DR	28	LEU
37	DR	29	LEU
37	DR	37	THR
37	DR	44	LEU
37	DR	45	ARG
37	DR	54	LEU
37	DR	60	LEU
37	DR	65	LEU
37	DR	73	VAL
37	DR	75	LEU
37	DR	79	LEU

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Mol	Chain	Res	Type
37	DR	81	ASP
37	DR	86	ARG
37	DR	97	VAL
37	DR	100	LEU
37	DR	102	GLU
37	DR	104	ARG
37	DR	111	LEU
37	DR	118	GLU
38	DS	4	LEU
38	DS	10	ARG
38	DS	14	VAL
38	DS	19	LYS
38	DS	20	ARG
38	DS	29	PHE
38	DS	30	ARG
38	DS	36	TYR
38	DS	40	ILE
38	DS	43	GLU
38	DS	48	LEU
38	DS	52	SER
38	DS	64	GLU
38	DS	78	LEU
38	DS	83	LYS
38	DS	98	VAL
38	DS	101	LEU
38	DS	110	LEU
39	DT	6	LEU
39	DT	21	GLU
39	DT	23	ARG
39	DT	27	THR
39	DT	34	VAL
39	DT	36	GLU
39	DT	39	ARG
39	DT	40	THR
39	DT	51	ARG
39	DT	54	ARG
39	DT	58	ASN
39	DT	59	THR
39	DT	64	ARG
39	DT	67	SER
39	DT	73	GLU
39	DT	74	ARG

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Mol	Chain	Res	Type
39	DT	85	LYS
39	DT	89	VAL
39	DT	90	GLN
39	DT	93	ARG
39	DT	95	ARG
39	DT	96	ARG
39	DT	105	LEU
39	DT	109	GLU
39	DT	111	ARG
39	DT	118	ARG
39	DT	121	ILE
39	DT	123	GLN
40	DU	20	LEU
40	DU	31	SER
40	DU	36	ARG
40	DU	51	LYS
40	DU	55	ARG
40	DU	58	ARG
40	DU	59	ARG
40	DU	63	VAL
40	DU	72	HIS
40	DU	74	LEU
40	DU	83	LEU
40	DU	88	ILE
40	DU	90	VAL
40	DU	100	VAL
40	DU	104	GLN
40	DU	108	GLU
41	DV	6	LYS
41	DV	10	LYS
41	DV	12	TYR
41	DV	13	ARG
41	DV	14	VAL
41	DV	18	LEU
41	DV	21	ARG
41	DV	28	GLU
41	DV	32	THR
41	DV	33	VAL
41	DV	35	LEU
41	DV	39	LEU
41	DV	43	GLU
41	DV	46	VAL

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Mol	Chain	Res	Type
41	DV	51	VAL
41	DV	53	GLU
41	DV	61	VAL
41	DV	62	LEU
41	DV	72	VAL
41	DV	73	SER
41	DV	79	VAL
41	DV	85	LYS
41	DV	93	GLU
41	DV	95	LEU
41	DV	98	GLU
42	DW	11	ARG
42	DW	17	VAL
42	DW	18	ARG
42	DW	23	LEU
42	DW	39	THR
42	DW	51	LEU
42	DW	52	GLU
42	DW	65	LEU
42	DW	66	GLU
42	DW	92	ARG
42	DW	94	ASP
42	DW	95	ILE
42	DW	100	THR
42	DW	105	VAL
42	DW	107	LEU
43	DX	8	ILE
43	DX	23	GLU
43	DX	27	THR
43	DX	38	GLU
43	DX	53	LYS
43	DX	56	THR
43	DX	57	LEU
43	DX	70	LEU
43	DX	76	ARG
43	DX	80	ILE
43	DX	81	VAL
43	DX	92	LEU
44	DY	1	MET
44	DY	2	ARG
44	DY	9	LYS
44	DY	28	LYS

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Mol	Chain	Res	Type
44	DY	30	VAL
44	DY	34	LYS
44	DY	38	ILE
44	DY	44	ILE
44	DY	45	VAL
44	DY	49	VAL
44	DY	52	SER
44	DY	61	ILE
44	DY	67	LEU
44	DY	72	VAL
44	DY	83	THR
44	DY	85	VAL
44	DY	86	ARG
44	DY	90	LEU
44	DY	97	ARG
44	DY	107	ASP
45	DZ	1	MET
45	DZ	11	GLU
45	DZ	19	ARG
45	DZ	24	LEU
45	DZ	29	TYR
45	DZ	30	ASN
45	DZ	31	ARG
45	DZ	40	ASP
45	DZ	41	LEU
45	DZ	56	VAL
45	DZ	58	VAL
45	DZ	66	SER
45	DZ	72	ARG
45	DZ	73	GLN
45	DZ	74	VAL
45	DZ	82	ARG
45	DZ	86	VAL
45	DZ	87	ASP
45	DZ	93	ASP
45	DZ	94	GLU
45	DZ	100	VAL
45	DZ	119	GLU
45	DZ	129	SER
45	DZ	131	ARG
45	DZ	133	ILE
45	DZ	135	GLU

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Mol	Chain	Res	Type
45	DZ	140	ASP
45	DZ	157	LEU
45	DZ	161	VAL
45	DZ	170	THR
45	DZ	175	VAL
45	DZ	179	ASP
45	DZ	185	GLU
46	D0	10	THR
46	D0	14	ARG
46	D0	16	SER
46	D0	19	LYS
46	D0	20	ARG
46	D0	41	ARG
46	D0	43	THR
46	D0	53	MET
46	D0	55	ARG
46	D0	56	ASP
46	D0	72	ARG
46	D0	74	ARG
46	D0	81	VAL
46	D0	84	LEU
47	D1	3	LYS
47	D1	4	VAL
47	D1	11	ARG
47	D1	21	ARG
47	D1	38	SER
47	D1	40	ARG
47	D1	41	ARG
47	D1	46	LEU
47	D1	51	VAL
47	D1	53	VAL
47	D1	58	ILE
47	D1	59	THR
47	D1	61	ARG
47	D1	62	VAL
47	D1	73	LEU
47	D1	80	LEU
47	D1	90	ILE
47	D1	95	LEU
47	D1	97	LEU
47	D1	98	LEU
48	D2	1	MET

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Mol	Chain	Res	Type
48	D2	3	LEU
48	D2	17	SER
48	D2	21	LEU
48	D2	26	ARG
48	D2	30	ARG
48	D2	43	GLN
48	D2	45	SER
48	D2	51	ARG
48	D2	53	LEU
48	D2	62	THR
48	D2	64	LEU
48	D2	65	ASN
49	D3	8	LEU
49	D3	11	SER
49	D3	23	LEU
49	D3	28	LEU
49	D3	31	LEU
49	D3	36	VAL
49	D3	37	LEU
49	D3	56	VAL
49	D3	57	GLU
50	D4	1	MET
50	D4	5	ILE
50	D4	8	LYS
50	D4	10	VAL
50	D4	13	ARG
50	D4	14	ILE
50	D4	16	CYS
50	D4	18	CYS
50	D4	31	ILE
50	D4	36	CYS
50	D4	39	CYS
50	D4	43	TYR
50	D4	44	THR
50	D4	46	GLN
51	D5	6	VAL
51	D5	9	LYS
51	D5	15	ARG
51	D5	16	ARG
51	D5	25	LEU
51	D5	26	THR
51	D5	33	CYS

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Mol	Chain	Res	Type
51	D5	40	LYS
51	D5	55	ARG
51	D5	57	VAL
52	D6	4	GLU
52	D6	5	VAL
52	D6	8	LYS
52	D6	13	CYS
52	D6	18	ARG
52	D6	34	LEU
52	D6	38	LYS
52	D6	40	CYS
52	D6	43	CYS
52	D6	44	ARG
53	D7	1	MET
53	D7	8	ASN
53	D7	12	ARG
53	D7	14	LYS
53	D7	19	ARG
53	D7	24	THR
53	D7	32	LYS
53	D7	43	THR
54	D8	4	MET
54	D8	13	ARG
54	D8	14	VAL
54	D8	23	VAL
54	D8	25	MET
54	D8	26	LYS
54	D8	32	LEU
54	D8	34	TRP
54	D8	41	ILE
55	D9	2	LYS
55	D9	4	ARG
55	D9	7	VAL
55	D9	12	ASP
55	D9	22	ARG
55	D9	26	ILE
55	D9	33	LYS

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (46) such sidechains are listed below:

Mol	Chain	Res	Type
3	AC	6	HIS

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Mol	Chain	Res	Type
6	AF	73	ASN
7	AG	153	HIS
10	AJ	56	HIS
15	AO	28	GLN
16	AP	14	ASN
16	AP	16	HIS
20	AT	18	GLN
22	AY	23	GLN
22	AY	75	GLN
22	AY	124	GLN
27	BD	143	HIS
30	BG	41	GLN
32	BI	105	HIS
32	BI	139	GLN
34	BO	5	GLN
35	BP	68	GLN
35	BP	84	ASN
37	BR	71	GLN
43	BX	31	HIS
45	BZ	54	HIS
52	B6	20	ASN
55	B9	36	GLN
2	CB	16	HIS
4	CD	123	HIS
6	CF	73	ASN
7	CG	28	ASN
9	CI	3	GLN
11	CK	99	GLN
13	CM	40	ASN
14	CN	49	HIS
15	CO	28	GLN
18	CR	63	GLN
19	CS	14	HIS
19	CS	23	ASN
28	DE	135	HIS
29	DF	75	HIS
33	DN	133	GLN
34	DO	88	ASN
40	DU	81	HIS
43	DX	31	HIS
43	DX	55	ASN
46	D0	12	ASN

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Mol	Chain	Res	Type
51	D5	4	HIS
55	D9	29	ASN
55	D9	36	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1462/1522 (96%)	386 (26%)	33 (2%)
1	CA	1457/1522 (95%)	367 (25%)	33 (2%)
23	AV	76/77 (98%)	20 (26%)	1 (1%)
23	CV	76/77 (98%)	21 (27%)	0
24	AX	5/16 (31%)	1 (20%)	0
24	CX	5/16 (31%)	0	0
25	BA	2744/2915 (94%)	642 (23%)	64 (2%)
25	DA	2711/2915 (93%)	632 (23%)	55 (2%)
26	BB	119/122 (97%)	24 (20%)	0
26	DB	119/122 (97%)	26 (21%)	2 (1%)
All	All	8774/9304 (94%)	2119 (24%)	188 (2%)

All (2119) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	7	G
1	AA	9	G
1	AA	13	U
1	AA	22	G
1	AA	28	G
1	AA	30	U
1	AA	32	A
1	AA	39	G
1	AA	47	C
1	AA	48	C
1	AA	50	A
1	AA	51	A
1	AA	59	A
1	AA	60	A
1	AA	61	G
1	AA	63	C
1	AA	65	U
1	AA	76	C
1	AA	77	G

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Mol	Chain	Res	Type
1	AA	78	G
1	AA	92	C
1	AA	93	G
1	AA	96	U
1	AA	97	G
1	AA	98	G
1	AA	101	A
1	AA	115	G
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	131	C
1	AA	132	C
1	AA	143	A
1	AA	144	G
1	AA	150	C
1	AA	157	G
1	AA	163	C
1	AA	167	G
1	AA	169	C
1	AA	173	U
1	AA	181	G
1	AA	183	G
1	AA	184	G
1	AA	189(C)	C
1	AA	189(D)	C
1	AA	189(E)	U
1	AA	189(F)	U
1	AA	189(G)	G
1	AA	189(H)	G
1	AA	195	A
1	AA	197	A
1	AA	199	G
1	AA	201	C
1	AA	202	U
1	AA	203	U
1	AA	204	U
1	AA	216	G
1	AA	217	C
1	AA	222	U
1	AA	243	A
1	AA	247	G

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Mol	Chain	Res	Type
1	AA	251	G
1	AA	262	A
1	AA	266	G
1	AA	267	C
1	AA	272	C
1	AA	289	G
1	AA	301	G
1	AA	305	G
1	AA	308	C
1	AA	318	G
1	AA	320	C
1	AA	321	A
1	AA	328	C
1	AA	330	C
1	AA	331	G
1	AA	332	G
1	AA	335	C
1	AA	343	U
1	AA	344	A
1	AA	345	C
1	AA	346	G
1	AA	347	G
1	AA	348	G
1	AA	350	G
1	AA	351	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	355	C
1	AA	365	U
1	AA	367	U
1	AA	372	C
1	AA	373	A
1	AA	374	A
1	AA	383	A
1	AA	388	G
1	AA	392	G
1	AA	396	G
1	AA	397	A
1	AA	398	C
1	AA	405	U
1	AA	406	G

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Mol	Chain	Res	Type
1	AA	408	A
1	AA	411	A
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	421	U
1	AA	422	C
1	AA	423	G
1	AA	424	G
1	AA	429	U
1	AA	430	A
1	AA	435	C
1	AA	436	C
1	AA	437	U
1	AA	439	A
1	AA	442	C
1	AA	446	G
1	AA	452	A
1	AA	453	A
1	AA	460	G
1	AA	470	C
1	AA	472	A
1	AA	476	G
1	AA	482	A
1	AA	483	C
1	AA	484	G
1	AA	485	G
1	AA	495	A
1	AA	496	A
1	AA	498	U
1	AA	504	C
1	AA	505	G
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	518	C
1	AA	521	G
1	AA	527	G
1	AA	530	G
1	AA	532	A
1	AA	533	A
1	AA	534	U

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Mol	Chain	Res	Type
1	AA	545	C
1	AA	547	A
1	AA	559	A
1	AA	561	U
1	AA	562	C
1	AA	564	C
1	AA	572	A
1	AA	573	A
1	AA	576	G
1	AA	577	G
1	AA	587	G
1	AA	588	G
1	AA	592	G
1	AA	595	G
1	AA	596	C
1	AA	601	C
1	AA	615	C
1	AA	619	U
1	AA	623	C
1	AA	630	G
1	AA	632	A
1	AA	637	G
1	AA	653	A
1	AA	660	G
1	AA	661	G
1	AA	665	A
1	AA	674	G
1	AA	687	A
1	AA	688	G
1	AA	693	G
1	AA	722	A
1	AA	723	U
1	AA	729	A
1	AA	731	G
1	AA	734	G
1	AA	740	U
1	AA	742	G
1	AA	749	C
1	AA	751	U
1	AA	752	G
1	AA	753	A
1	AA	754	C

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Mol	Chain	Res	Type
1	AA	755	G
1	AA	775	G
1	AA	777	A
1	AA	778	G
1	AA	786	G
1	AA	792	A
1	AA	793	U
1	AA	794	A
1	AA	796	C
1	AA	802	A
1	AA	817	C
1	AA	828	A
1	AA	829	G
1	AA	833	U
1	AA	839	U
1	AA	840	C
1	AA	841	U
1	AA	848	C
1	AA	851	G
1	AA	853	G
1	AA	855	G
1	AA	859	A
1	AA	860	A
1	AA	863	U
1	AA	866	C
1	AA	870	U
1	AA	873	A
1	AA	876	G
1	AA	885	G
1	AA	891	U
1	AA	902	G
1	AA	914	A
1	AA	916	G
1	AA	919	A
1	AA	925	G
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	936	C
1	AA	937	A
1	AA	940	C

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Mol	Chain	Res	Type
1	AA	960	U
1	AA	961	U
1	AA	969	A
1	AA	971	G
1	AA	972	C
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	978	A
1	AA	980	C
1	AA	981	U
1	AA	982	U
1	AA	989	C
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	1011	G
1	AA	1020	U
1	AA	1021	G
1	AA	1043	C
1	AA	1051	C
1	AA	1053	G
1	AA	1056	U
1	AA	1065	U
1	AA	1066	C
1	AA	1068	G
1	AA	1077	G
1	AA	1081	G
1	AA	1083	U
1	AA	1088	G
1	AA	1094	G
1	AA	1095	U
1	AA	1096	C
1	AA	1099	G
1	AA	1101	A
1	AA	1103	C
1	AA	1123	A
1	AA	1124	G
1	AA	1125	U
1	AA	1126	U
1	AA	1127	G

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Mol	Chain	Res	Type
1	AA	1128	C
1	AA	1129	C
1	AA	1130	A
1	AA	1131	G
1	AA	1134	G
1	AA	1136	U
1	AA	1137	C
1	AA	1138	G
1	AA	1139	G
1	AA	1146	A
1	AA	1148	U
1	AA	1150	U
1	AA	1151	A
1	AA	1152	A
1	AA	1159	U
1	AA	1160	G
1	AA	1165	C
1	AA	1166	G
1	AA	1175	G
1	AA	1181	G
1	AA	1182	G
1	AA	1183	A
1	AA	1184	G
1	AA	1193	G
1	AA	1196	U
1	AA	1201	A
1	AA	1202	G
1	AA	1206	G
1	AA	1210	C
1	AA	1211	U
1	AA	1212	U
1	AA	1213	A
1	AA	1225	A
1	AA	1226	C
1	AA	1227	A
1	AA	1238	A
1	AA	1241	G
1	AA	1250	A
1	AA	1255	G
1	AA	1257	U
1	AA	1258	G
1	AA	1260	C

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Mol	Chain	Res	Type
1	AA	1261	A
1	AA	1263	C
1	AA	1264	C
1	AA	1268	A
1	AA	1269	A
1	AA	1270	C
1	AA	1272	G
1	AA	1273	G
1	AA	1275	A
1	AA	1278	U
1	AA	1279	A
1	AA	1280	A
1	AA	1281	U
1	AA	1282	C
1	AA	1286	A
1	AA	1287	A
1	AA	1291	G
1	AA	1294	G
1	AA	1299	A
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1304	G
1	AA	1305	G
1	AA	1313	U
1	AA	1317	C
1	AA	1319	A
1	AA	1320	C
1	AA	1322	C
1	AA	1338	G
1	AA	1341	U
1	AA	1346	A
1	AA	1347	G
1	AA	1353	G
1	AA	1359	C
1	AA	1360	A
1	AA	1363	C
1	AA	1363(A)	A
1	AA	1364	U
1	AA	1370	G
1	AA	1377	A
1	AA	1379	G

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Mol	Chain	Res	Type
1	AA	1398	A
1	AA	1399	C
1	AA	1401	G
1	AA	1402	C
1	AA	1403	C
1	AA	1406	U
1	AA	1419	G
1	AA	1442	G
1	AA	1442(A)	G
1	AA	1446	U
1	AA	1447	A
1	AA	1452	C
1	AA	1456	G
1	AA	1457	G
1	AA	1460	A
1	AA	1487	G
1	AA	1492	A
1	AA	1494	G
1	AA	1502	A
1	AA	1503	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1517	G
1	AA	1519	A
1	AA	1520	G
1	AA	1528	U
1	AA	1529	G
1	AA	1530	G
1	AA	1531	A
1	AA	1532	U
23	AV	3	C
23	AV	8	U
23	AV	9	G
23	AV	10	G
23	AV	19	G
23	AV	21	A
23	AV	25	C
23	AV	31	G
23	AV	32	C
23	AV	33	U
23	AV	34	C

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Mol	Chain	Res	Type
23	AV	41	C
23	AV	47	U
23	AV	48	C
23	AV	56	C
23	AV	59	A
23	AV	65	C
23	AV	69	C
23	AV	74	C
23	AV	76	A
24	AX	6	G
25	BA	27	G
25	BA	34	C
25	BA	35	G
25	BA	37	C
25	BA	42	G
25	BA	45	C
25	BA	47	C
25	BA	49	A
25	BA	51	G
25	BA	55	G
25	BA	63	U
25	BA	71	A
25	BA	72	U
25	BA	74	A
25	BA	75	G
25	BA	84	A
25	BA	90	U
25	BA	92	A
25	BA	97	C
25	BA	98	G
25	BA	99	U
25	BA	100	G
25	BA	102	G
25	BA	103	A
25	BA	112	U
25	BA	118	A
25	BA	119	A
25	BA	120	U
25	BA	121	G
25	BA	123	G
25	BA	125	G
25	BA	154	G

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Mol	Chain	Res	Type
25	BA	181	A
25	BA	182	A
25	BA	188	G
25	BA	196	A
25	BA	197	A
25	BA	199	A
25	BA	204	A
25	BA	205	G
25	BA	215	G
25	BA	216	A
25	BA	221	A
25	BA	222	A
25	BA	228	A
25	BA	229	A
25	BA	233	A
25	BA	240	G
25	BA	245	G
25	BA	248	G
25	BA	250	G
25	BA	252	G
25	BA	265	A
25	BA	269	U
25	BA	271(C)	C
25	BA	271(I)	G
25	BA	271(K)	U
25	BA	271(L)	U
25	BA	271(M)	G
25	BA	271(N)	U
25	BA	271(O)	C
25	BA	272(A)	U
25	BA	272(B)	G
25	BA	272(D)	G
25	BA	272(G)	C
25	BA	272(H)	C
25	BA	272(J)	C
25	BA	275	G
25	BA	279	C
25	BA	283	A
25	BA	308	G
25	BA	311	A
25	BA	325	G
25	BA	329	G

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Mol	Chain	Res	Type
25	BA	330	A
25	BA	333	G
25	BA	335	C
25	BA	343	C
25	BA	345	A
25	BA	352	G
25	BA	353	G
25	BA	354	G
25	BA	362	U
25	BA	363	G
25	BA	363(F)	A
25	BA	372	G
25	BA	385	C
25	BA	386	G
25	BA	396	G
25	BA	399	G
25	BA	400	G
25	BA	404	C
25	BA	405	U
25	BA	411	G
25	BA	412	A
25	BA	418	G
25	BA	428	A
25	BA	442	G
25	BA	444	C
25	BA	448	U
25	BA	470	A
25	BA	471	A
25	BA	475	U
25	BA	480	A
25	BA	481	G
25	BA	482	A
25	BA	494	G
25	BA	501	A
25	BA	504	U
25	BA	505	A
25	BA	509	C
25	BA	518	G
25	BA	521	G
25	BA	522	G
25	BA	523	C
25	BA	530	G

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Mol	Chain	Res	Type
25	BA	531	C
25	BA	532	A
25	BA	533	G
25	BA	545	G
25	BA	549	G
25	BA	563	G
25	BA	564	C
25	BA	571	A
25	BA	573	G
25	BA	575	A
25	BA	582	G
25	BA	586	A
25	BA	587	C
25	BA	588	U
25	BA	603	A
25	BA	604	G
25	BA	605	C
25	BA	607	U
25	BA	610	G
25	BA	614(B)	G
25	BA	615	G
25	BA	616	G
25	BA	619	G
25	BA	627	A
25	BA	632	A
25	BA	634	C
25	BA	637	A
25	BA	642	G
25	BA	645	C
25	BA	646	A
25	BA	648	G
25	BA	650	C
25	BA	652(B)	A
25	BA	652(C)	G
25	BA	652(D)	C
25	BA	652(E)	G
25	BA	652(I)	C
25	BA	652(P)	G
25	BA	652(R)	C
25	BA	652(T)	C
25	BA	652(U)	G
25	BA	654	A

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Mol	Chain	Res	Type
25	BA	669	G
25	BA	673	C
25	BA	686	G
25	BA	698	C
25	BA	717	G
25	BA	730	C
25	BA	738	G
25	BA	740	U
25	BA	750	A
25	BA	752	A
25	BA	753	C
25	BA	757	U
25	BA	764	A
25	BA	765	G
25	BA	774	A
25	BA	775	G
25	BA	776	G
25	BA	779	U
25	BA	782	A
25	BA	784	A
25	BA	785	G
25	BA	790	C
25	BA	792	G
25	BA	805	G
25	BA	811	U
25	BA	812	C
25	BA	819	A
25	BA	820	A
25	BA	827	U
25	BA	828	U
25	BA	831	G
25	BA	847	U
25	BA	859	G
25	BA	866	A
25	BA	867	C
25	BA	868	U
25	BA	869	G
25	BA	877	U
25	BA	878	A
25	BA	881	G
25	BA	884	C
25	BA	885	C

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Mol	Chain	Res	Type
25	BA	886	C
25	BA	887	A
25	BA	888	C
25	BA	889	C
25	BA	890	A
25	BA	895	U
25	BA	896	A
25	BA	897	C
25	BA	899	A
25	BA	900	A
25	BA	901	A
25	BA	910	A
25	BA	914	C
25	BA	916	G
25	BA	917	A
25	BA	919	G
25	BA	924	C
25	BA	932	G
25	BA	939	G
25	BA	940	G
25	BA	941	A
25	BA	945	A
25	BA	946	G
25	BA	958	U
25	BA	959	A
25	BA	961	C
25	BA	963	U
25	BA	965	C
25	BA	974	G
25	BA	975	C
25	BA	975(A)	G
25	BA	983	A
25	BA	990	A
25	BA	991	C
25	BA	996	A
25	BA	1012	U
25	BA	1013	C
25	BA	1020	A
25	BA	1022	G
25	BA	1023	U
25	BA	1025	G
25	BA	1026	U

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Mol	Chain	Res	Type
25	BA	1027	A
25	BA	1030	G
25	BA	1033	U
25	BA	1039	G
25	BA	1041	C
25	BA	1042	G
25	BA	1044	G
25	BA	1045	A
25	BA	1046	A
25	BA	1047	G
25	BA	1048	A
25	BA	1049	C
25	BA	1050	A
25	BA	1107	G
25	BA	1108	U
25	BA	1109	C
25	BA	1110	G
25	BA	1111	A
25	BA	1112	G
25	BA	1113	U
25	BA	1124	C
25	BA	1128	A
25	BA	1129	A
25	BA	1130	U
25	BA	1131	G
25	BA	1135	C
25	BA	1136	G
25	BA	1139	G
25	BA	1151	G
25	BA	1154	G
25	BA	1155	A
25	BA	1156	A
25	BA	1170	G
25	BA	1171	G
25	BA	1173	G
25	BA	1174	A
25	BA	1175	U
25	BA	1176	G
25	BA	1177	A
25	BA	1184	G
25	BA	1190	G
25	BA	1204	A

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Mol	Chain	Res	Type
25	BA	1210	A
25	BA	1211	U
25	BA	1218	C
25	BA	1229	G
25	BA	1240	U
25	BA	1244	G
25	BA	1253	A
25	BA	1254	A
25	BA	1256	G
25	BA	1267	U
25	BA	1271	G
25	BA	1272	A
25	BA	1273	U
25	BA	1287	A
25	BA	1288	U
25	BA	1292	U
25	BA	1298	C
25	BA	1300	U
25	BA	1301	A
25	BA	1307	A
25	BA	1310	G
25	BA	1312	U
25	BA	1319	G
25	BA	1321	A
25	BA	1329	U
25	BA	1332	G
25	BA	1341	U
25	BA	1345	C
25	BA	1348	G
25	BA	1349	A
25	BA	1352	U
25	BA	1359	A
25	BA	1360	A
25	BA	1365	A
25	BA	1368	G
25	BA	1370	C
25	BA	1371	G
25	BA	1379	A
25	BA	1384	A
25	BA	1385	G
25	BA	1386	C
25	BA	1402	C

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Mol	Chain	Res	Type
25	BA	1416	G
25	BA	1417	C
25	BA	1419	A
25	BA	1420	U
25	BA	1421	G
25	BA	1426	G
25	BA	1427	A
25	BA	1428	C
25	BA	1431	U
25	BA	1445	A
25	BA	1449	A
25	BA	1450	G
25	BA	1459	G
25	BA	1461	G
25	BA	1465	G
25	BA	1467	C
25	BA	1471	A
25	BA	1478	G
25	BA	1482	G
25	BA	1487	G
25	BA	1488	G
25	BA	1489	U
25	BA	1492	G
25	BA	1493	C
25	BA	1495	A
25	BA	1496	A
25	BA	1497	U
25	BA	1506	C
25	BA	1507	A
25	BA	1508	A
25	BA	1509	C
25	BA	1509(A)	A
25	BA	1523	U
25	BA	1525	G
25	BA	1540	U
25	BA	1542	A
25	BA	1543	C
25	BA	1546	C
25	BA	1554	A
25	BA	1558	A
25	BA	1559	G
25	BA	1569	A

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Mol	Chain	Res	Type
25	BA	1578	U
25	BA	1579	A
25	BA	1582	C
25	BA	1586	A
25	BA	1587	A
25	BA	1594	G
25	BA	1606	G
25	BA	1607	C
25	BA	1608	A
25	BA	1609	A
25	BA	1610	A
25	BA	1617	C
25	BA	1619	G
25	BA	1622	G
25	BA	1625	C
25	BA	1633	G
25	BA	1635	G
25	BA	1639	U
25	BA	1648	C
25	BA	1654	A
25	BA	1655	A
25	BA	1660	C
25	BA	1674	G
25	BA	1675	C
25	BA	1688	U
25	BA	1695	G
25	BA	1696	G
25	BA	1700	A
25	BA	1701	A
25	BA	1717	G
25	BA	1721	G
25	BA	1722	A
25	BA	1739	U
25	BA	1746	G
25	BA	1762	A
25	BA	1763	G
25	BA	1764	G
25	BA	1773	A
25	BA	1781	C
25	BA	1782	C
25	BA	1791	A
25	BA	1795	C

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Mol	Chain	Res	Type
25	BA	1799	G
25	BA	1800	C
25	BA	1801	G
25	BA	1802	A
25	BA	1811	G
25	BA	1812	A
25	BA	1816	G
25	BA	1819	A
25	BA	1820	U
25	BA	1828	G
25	BA	1829	A
25	BA	1834	U
25	BA	1835	G
25	BA	1837	C
25	BA	1847	A
25	BA	1858	G
25	BA	1876	A
25	BA	1877	A
25	BA	1878	G
25	BA	1889	A
25	BA	1896	G
25	BA	1900	A
25	BA	1904	G
25	BA	1906	G
25	BA	1913	A
25	BA	1914	C
25	BA	1915	U
25	BA	1921	G
25	BA	1929	G
25	BA	1930	G
25	BA	1931	U
25	BA	1936	A
25	BA	1938	A
25	BA	1955	U
25	BA	1963	U
25	BA	1964	G
25	BA	1967	C
25	BA	1969	A
25	BA	1970	A
25	BA	1971	A
25	BA	1972	A
25	BA	1975	G

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Mol	Chain	Res	Type
25	BA	1976	U
25	BA	1982	C
25	BA	1988	C
25	BA	1991	U
25	BA	1992	G
25	BA	1993	U
25	BA	1997	G
25	BA	2023	G
25	BA	2027	G
25	BA	2030	A
25	BA	2031	A
25	BA	2032	G
25	BA	2033	A
25	BA	2043	C
25	BA	2052	G
25	BA	2054	A
25	BA	2055	C
25	BA	2056	G
25	BA	2060	A
25	BA	2061	G
25	BA	2062	A
25	BA	2063	C
25	BA	2069	G
25	BA	2072	G
25	BA	2074	U
25	BA	2081	C
25	BA	2093	G
25	BA	2097	C
25	BA	2102	U
25	BA	2104	G
25	BA	2105	C
25	BA	2184	G
25	BA	2186	G
25	BA	2187	G
25	BA	2188	C
25	BA	2191	G
25	BA	2198	A
25	BA	2199	A
25	BA	2200	C
25	BA	2201	C
25	BA	2206	G
25	BA	2207	G

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Mol	Chain	Res	Type
25	BA	2208	A
25	BA	2218	U
25	BA	2225	A
25	BA	2234	G
25	BA	2238	G
25	BA	2243	U
25	BA	2268	A
25	BA	2269	A
25	BA	2273	A
25	BA	2274	A
25	BA	2275	C
25	BA	2278	A
25	BA	2279	G
25	BA	2283	C
25	BA	2287	A
25	BA	2288	A
25	BA	2289	G
25	BA	2294	C
25	BA	2298	A
25	BA	2305	A
25	BA	2306	C
25	BA	2307	G
25	BA	2308	G
25	BA	2311	A
25	BA	2315	G
25	BA	2318	G
25	BA	2319	G
25	BA	2320	A
25	BA	2321	G
25	BA	2322	A
25	BA	2325	G
25	BA	2327	A
25	BA	2334	G
25	BA	2335	A
25	BA	2336	A
25	BA	2340	G
25	BA	2347	C
25	BA	2348	U
25	BA	2349	G
25	BA	2350	C
25	BA	2357	U
25	BA	2365	G

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Mol	Chain	Res	Type
25	BA	2383	G
25	BA	2385	C
25	BA	2390	U
25	BA	2393	A
25	BA	2400	G
25	BA	2405	G
25	BA	2406	U
25	BA	2410	G
25	BA	2411	A
25	BA	2414	G
25	BA	2418	A
25	BA	2422	A
25	BA	2423	U
25	BA	2424	C
25	BA	2425	A
25	BA	2427	C
25	BA	2429	G
25	BA	2430	A
25	BA	2431	U
25	BA	2432	A
25	BA	2434	A
25	BA	2435	A
25	BA	2439	A
25	BA	2440	C
25	BA	2441	C
25	BA	2445	G
25	BA	2448	A
25	BA	2451	A
25	BA	2459	A
25	BA	2464	C
25	BA	2467	C
25	BA	2469	A
25	BA	2471	C
25	BA	2475	C
25	BA	2476	A
25	BA	2477	C
25	BA	2478	A
25	BA	2487	G
25	BA	2494	G
25	BA	2496	C
25	BA	2502	G
25	BA	2505	G

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Mol	Chain	Res	Type
25	BA	2506	U
25	BA	2518	A
25	BA	2520	C
25	BA	2525	G
25	BA	2529	G
25	BA	2535	G
25	BA	2554	U
25	BA	2566	A
25	BA	2567	G
25	BA	2573	C
25	BA	2574	G
25	BA	2585	U
25	BA	2586	C
25	BA	2596	U
25	BA	2602	A
25	BA	2604	U
25	BA	2609	U
25	BA	2610	C
25	BA	2611	U
25	BA	2612	C
25	BA	2615	U
25	BA	2617	C
25	BA	2629	A
25	BA	2630	G
25	BA	2657	A
25	BA	2670	A
25	BA	2679	A
25	BA	2689	U
25	BA	2690	C
25	BA	2691	C
25	BA	2701	C
25	BA	2702	U
25	BA	2703	C
25	BA	2712(A)	A
25	BA	2713	A
25	BA	2714	G
25	BA	2726	U
25	BA	2733	A
25	BA	2739	U
25	BA	2758	A
25	BA	2765	A
25	BA	2766	G

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Mol	Chain	Res	Type
25	BA	2769	C
25	BA	2778	A
25	BA	2790	A
25	BA	2791	C
25	BA	2792	G
25	BA	2802	G
25	BA	2808	U
25	BA	2818	G
25	BA	2820	A
25	BA	2821	A
25	BA	2826	A
25	BA	2833	G
25	BA	2834	G
25	BA	2835	A
25	BA	2848	G
25	BA	2858	C
25	BA	2870	C
25	BA	2872	G
25	BA	2873	A
25	BA	2892	A
25	BA	2895	U
25	BA	2897	U
26	BB	2	C
26	BB	8	U
26	BB	9	G
26	BB	12	C
26	BB	13	A
26	BB	15	A
26	BB	16	G
26	BB	20	C
26	BB	29	A
26	BB	35	U
26	BB	39	A
26	BB	42	C
26	BB	45	A
26	BB	47	C
26	BB	54	G
26	BB	56	G
26	BB	64	C
26	BB	67	G
26	BB	73	A
26	BB	84	C

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Mol	Chain	Res	Type
26	BB	91	C
26	BB	106	G
26	BB	110	G
26	BB	120	A
1	CA	6	G
1	CA	7	G
1	CA	9	G
1	CA	10	A
1	CA	13	U
1	CA	22	G
1	CA	26	A
1	CA	32	A
1	CA	39	G
1	CA	40	C
1	CA	47	C
1	CA	48	C
1	CA	50	A
1	CA	51	A
1	CA	58	C
1	CA	60	A
1	CA	61	G
1	CA	65	U
1	CA	66	G
1	CA	73	G
1	CA	76	C
1	CA	96	U
1	CA	97	G
1	CA	101	A
1	CA	105	G
1	CA	112	G
1	CA	115	G
1	CA	116	A
1	CA	117	G
1	CA	120	A
1	CA	121	C
1	CA	129(A)	G
1	CA	131	C
1	CA	144	G
1	CA	146	G
1	CA	150	C
1	CA	154	C
1	CA	163	C

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Mol	Chain	Res	Type
1	CA	173	U
1	CA	182	U
1	CA	189(B)	C
1	CA	189(F)	U
1	CA	189(H)	G
1	CA	195	A
1	CA	197	A
1	CA	199	G
1	CA	200	G
1	CA	201	C
1	CA	202	U
1	CA	203	U
1	CA	204	U
1	CA	216	G
1	CA	227	G
1	CA	245	C
1	CA	247	G
1	CA	250	A
1	CA	251	G
1	CA	253	U
1	CA	266	G
1	CA	267	C
1	CA	275	G
1	CA	281	G
1	CA	289	G
1	CA	300	A
1	CA	305	G
1	CA	314	C
1	CA	319	G
1	CA	321	A
1	CA	328	C
1	CA	329	A
1	CA	331	G
1	CA	332	G
1	CA	344	A
1	CA	349	A
1	CA	352	C
1	CA	353	A
1	CA	354	G
1	CA	355	C
1	CA	363	A
1	CA	365	U

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Mol	Chain	Res	Type
1	CA	366	C
1	CA	367	U
1	CA	372	C
1	CA	373	A
1	CA	381	C
1	CA	382	A
1	CA	389	A
1	CA	397	A
1	CA	398	C
1	CA	404	U
1	CA	406	G
1	CA	412	A
1	CA	413	G
1	CA	414	A
1	CA	419	C
1	CA	421	U
1	CA	422	C
1	CA	424	G
1	CA	427	U
1	CA	429	U
1	CA	430	A
1	CA	431	A
1	CA	436	C
1	CA	437	U
1	CA	439	A
1	CA	441	A
1	CA	442	C
1	CA	445	G
1	CA	452	A
1	CA	461	A
1	CA	475	G
1	CA	484	G
1	CA	485	G
1	CA	491	G
1	CA	496	A
1	CA	498	U
1	CA	499	A
1	CA	505	G
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	513	C

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Mol	Chain	Res	Type
1	CA	518	C
1	CA	527	G
1	CA	532	A
1	CA	533	A
1	CA	541	G
1	CA	547	A
1	CA	549	C
1	CA	550	G
1	CA	558	G
1	CA	559	A
1	CA	561	U
1	CA	562	C
1	CA	564	C
1	CA	573	A
1	CA	575	G
1	CA	576	G
1	CA	577	G
1	CA	587	G
1	CA	588	G
1	CA	595	G
1	CA	596	C
1	CA	597	G
1	CA	602	A
1	CA	617	G
1	CA	623	C
1	CA	630	G
1	CA	632	A
1	CA	633	G
1	CA	650	G
1	CA	653	A
1	CA	657	G
1	CA	665	A
1	CA	666	G
1	CA	687	A
1	CA	688	G
1	CA	711	G
1	CA	721	G
1	CA	723	U
1	CA	724	G
1	CA	729	A
1	CA	731	G
1	CA	749	C

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Mol	Chain	Res	Type
1	CA	754	C
1	CA	755	G
1	CA	760	G
1	CA	763	G
1	CA	765	G
1	CA	776	G
1	CA	777	A
1	CA	782	A
1	CA	788	U
1	CA	792	A
1	CA	793	U
1	CA	794	A
1	CA	796	C
1	CA	799	G
1	CA	810	C
1	CA	812	C
1	CA	817	C
1	CA	819	A
1	CA	820	U
1	CA	821	G
1	CA	828	A
1	CA	829	G
1	CA	833	U
1	CA	839	U
1	CA	840	C
1	CA	841	U
1	CA	848	C
1	CA	851	G
1	CA	858	G
1	CA	859	A
1	CA	870	U
1	CA	872	A
1	CA	873	A
1	CA	876	G
1	CA	877	C
1	CA	878	G
1	CA	884	U
1	CA	885	G
1	CA	902	G
1	CA	906	G
1	CA	914	A
1	CA	919	A

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Mol	Chain	Res	Type
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	954	G
1	CA	960	U
1	CA	961	U
1	CA	966	G
1	CA	969	A
1	CA	972	C
1	CA	974	A
1	CA	975	A
1	CA	976	G
1	CA	977	A
1	CA	978	A
1	CA	980	C
1	CA	984	C
1	CA	992	U
1	CA	993	G
1	CA	995	C
1	CA	1009	G
1	CA	1011	G
1	CA	1017	G
1	CA	1045	C
1	CA	1050	G
1	CA	1053	G
1	CA	1054	C
1	CA	1055	A
1	CA	1057	G
1	CA	1058	G
1	CA	1062	U
1	CA	1065	U
1	CA	1066	C
1	CA	1068	G
1	CA	1069	C
1	CA	1079	G
1	CA	1081	G
1	CA	1086	U
1	CA	1093	A
1	CA	1095	U
1	CA	1101	A
1	CA	1104	G
1	CA	1113	C

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Mol	Chain	Res	Type
1	CA	1117	G
1	CA	1124	G
1	CA	1125	U
1	CA	1126	U
1	CA	1127	G
1	CA	1134	G
1	CA	1136	U
1	CA	1137	C
1	CA	1138	G
1	CA	1139	G
1	CA	1140	C
1	CA	1147	C
1	CA	1148	U
1	CA	1152	A
1	CA	1154	G
1	CA	1159	U
1	CA	1160	G
1	CA	1170	A
1	CA	1171	G
1	CA	1178	G
1	CA	1179	A
1	CA	1182	G
1	CA	1185	G
1	CA	1188	A
1	CA	1190	G
1	CA	1193	G
1	CA	1196	U
1	CA	1197	G
1	CA	1201	A
1	CA	1202	G
1	CA	1203	C
1	CA	1211	U
1	CA	1212	U
1	CA	1213	A
1	CA	1215	G
1	CA	1218	C
1	CA	1224	G
1	CA	1225	A
1	CA	1226	C
1	CA	1227	A
1	CA	1228	C
1	CA	1236	A

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Mol	Chain	Res	Type
1	CA	1238	A
1	CA	1239	A
1	CA	1240	U
1	CA	1241	G
1	CA	1248	A
1	CA	1256	A
1	CA	1257	U
1	CA	1258	G
1	CA	1260	C
1	CA	1263	C
1	CA	1269	A
1	CA	1270	C
1	CA	1273	G
1	CA	1277	C
1	CA	1279	A
1	CA	1280	A
1	CA	1282	C
1	CA	1283	G
1	CA	1286	A
1	CA	1287	A
1	CA	1299	A
1	CA	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1305	G
1	CA	1311	G
1	CA	1312	G
1	CA	1317	C
1	CA	1320	C
1	CA	1321	C
1	CA	1322	C
1	CA	1323	G
1	CA	1331	G
1	CA	1335	C
1	CA	1336	C
1	CA	1346	A
1	CA	1347	G
1	CA	1353	G
1	CA	1358	U
1	CA	1359	C
1	CA	1363	C
1	CA	1365	G

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Mol	Chain	Res	Type
1	CA	1369	C
1	CA	1370	G
1	CA	1378	C
1	CA	1382	C
1	CA	1388	C
1	CA	1389	C
1	CA	1397	C
1	CA	1398	A
1	CA	1406	U
1	CA	1411	C
1	CA	1419	G
1	CA	1425	U
1	CA	1442	G
1	CA	1442(A)	G
1	CA	1447	A
1	CA	1452	C
1	CA	1456	G
1	CA	1457	G
1	CA	1487	G
1	CA	1492	A
1	CA	1493	A
1	CA	1494	G
1	CA	1499	A
1	CA	1502	A
1	CA	1503	A
1	CA	1504	G
1	CA	1505	G
1	CA	1506	U
1	CA	1507	A
1	CA	1517	G
1	CA	1519	A
1	CA	1520	G
1	CA	1529	G
1	CA	1530	G
1	CA	1531	A
23	CV	7	G
23	CV	8	U
23	CV	9	G
23	CV	10	G
23	CV	13	C
23	CV	17	C
23	CV	18	G

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Mol	Chain	Res	Type
23	CV	19	G
23	CV	20	U
23	CV	21	A
23	CV	22	G
23	CV	47	U
23	CV	48	C
23	CV	49	G
23	CV	50	U
23	CV	52	G
23	CV	56	C
23	CV	65	C
23	CV	70	G
23	CV	74	C
23	CV	76	A
25	DA	9	U
25	DA	10	G
25	DA	14	A
25	DA	15	G
25	DA	30	G
25	DA	34	C
25	DA	35	G
25	DA	36	G
25	DA	45	C
25	DA	55	G
25	DA	61	G
25	DA	64	A
25	DA	70	G
25	DA	71	A
25	DA	72	U
25	DA	74	A
25	DA	75	G
25	DA	84	A
25	DA	90	U
25	DA	92	A
25	DA	100	G
25	DA	102	G
25	DA	103	A
25	DA	118	A
25	DA	120	U
25	DA	133	C
25	DA	141	A
25	DA	153	C

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Mol	Chain	Res	Type
25	DA	154	G
25	DA	154(A)	C
25	DA	157	U
25	DA	172	C
25	DA	173	G
25	DA	181	A
25	DA	182	A
25	DA	183	C
25	DA	196	A
25	DA	197	A
25	DA	199	A
25	DA	200	U
25	DA	204	A
25	DA	205	G
25	DA	215	G
25	DA	216	A
25	DA	221	A
25	DA	222	A
25	DA	224	G
25	DA	228	A
25	DA	229	A
25	DA	232	G
25	DA	233	A
25	DA	245	G
25	DA	248	G
25	DA	250	G
25	DA	252	G
25	DA	271(I)	G
25	DA	271(K)	U
25	DA	271(L)	U
25	DA	271(M)	G
25	DA	271(N)	U
25	DA	271(O)	C
25	DA	271(R)	G
25	DA	272(A)	U
25	DA	272(B)	G
25	DA	281	G
25	DA	287	C
25	DA	308	G
25	DA	311	A
25	DA	324	A
25	DA	329	G

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Mol	Chain	Res	Type
25	DA	330	A
25	DA	342	G
25	DA	352	G
25	DA	353	G
25	DA	363	G
25	DA	363(B)	G
25	DA	363(C)	G
25	DA	363(F)	A
25	DA	386	G
25	DA	387	U
25	DA	389	G
25	DA	396	G
25	DA	406	G
25	DA	407	G
25	DA	411	G
25	DA	412	A
25	DA	427	U
25	DA	428	A
25	DA	444	C
25	DA	447	A
25	DA	455	C
25	DA	456	C
25	DA	457	A
25	DA	464	U
25	DA	470	A
25	DA	471	A
25	DA	472	A
25	DA	474	G
25	DA	475	U
25	DA	481	G
25	DA	482	A
25	DA	501	A
25	DA	504	U
25	DA	505	A
25	DA	508	G
25	DA	509	C
25	DA	510	C
25	DA	521	G
25	DA	530	G
25	DA	531	C
25	DA	532	A
25	DA	533	G

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Mol	Chain	Res	Type
25	DA	545	G
25	DA	546	C
25	DA	549	G
25	DA	563	G
25	DA	571	A
25	DA	573	G
25	DA	574	C
25	DA	575	A
25	DA	587	C
25	DA	588	U
25	DA	603	A
25	DA	604	G
25	DA	607	U
25	DA	615	G
25	DA	616	G
25	DA	620	G
25	DA	627	A
25	DA	637	A
25	DA	645	C
25	DA	646	A
25	DA	652(B)	A
25	DA	652(C)	G
25	DA	652(E)	G
25	DA	652(U)	G
25	DA	653	A
25	DA	668	G
25	DA	669	G
25	DA	670	A
25	DA	684	G
25	DA	686	G
25	DA	701	G
25	DA	708	C
25	DA	709	U
25	DA	717	G
25	DA	718	A
25	DA	726	G
25	DA	730	C
25	DA	731	C
25	DA	738	G
25	DA	740	U
25	DA	746	A
25	DA	747	U

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Mol	Chain	Res	Type
25	DA	748	G
25	DA	749	C
25	DA	753	C
25	DA	762	U
25	DA	765	G
25	DA	775	G
25	DA	776	G
25	DA	779	U
25	DA	782	A
25	DA	783	A
25	DA	784	A
25	DA	785	G
25	DA	790	C
25	DA	792	G
25	DA	805	G
25	DA	812	C
25	DA	819	A
25	DA	822	U
25	DA	827	U
25	DA	828	U
25	DA	829	A
25	DA	830	G
25	DA	839	U
25	DA	840	C
25	DA	846	C
25	DA	848	G
25	DA	855	G
25	DA	857	C
25	DA	859	G
25	DA	869	G
25	DA	874	G
25	DA	875	G
25	DA	880	G
25	DA	884	C
25	DA	885	C
25	DA	886	C
25	DA	887	A
25	DA	888	C
25	DA	889	C
25	DA	890	A
25	DA	893	C
25	DA	894	C

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Mol	Chain	Res	Type
25	DA	896	A
25	DA	900	A
25	DA	901	A
25	DA	905	U
25	DA	910	A
25	DA	911	A
25	DA	917	A
25	DA	931	G
25	DA	932	G
25	DA	933	A
25	DA	934	G
25	DA	938	G
25	DA	941	A
25	DA	944	G
25	DA	945	A
25	DA	946	G
25	DA	947	G
25	DA	957	A
25	DA	958	U
25	DA	959	A
25	DA	961	C
25	DA	968	G
25	DA	974	G
25	DA	975	C
25	DA	975(A)	G
25	DA	983	A
25	DA	991	C
25	DA	996	A
25	DA	999	U
25	DA	1004	C
25	DA	1005	C
25	DA	1009	A
25	DA	1010	A
25	DA	1012	U
25	DA	1013	C
25	DA	1020	A
25	DA	1021	A
25	DA	1022	G
25	DA	1023	U
25	DA	1026	U
25	DA	1027	A
25	DA	1033	U

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Mol	Chain	Res	Type
25	DA	1035	U
25	DA	1041	C
25	DA	1042	G
25	DA	1113	U
25	DA	1114	G
25	DA	1115	G
25	DA	1118	C
25	DA	1126	A
25	DA	1130	U
25	DA	1135	C
25	DA	1136	G
25	DA	1137	G
25	DA	1139	G
25	DA	1142(A)	A
25	DA	1143	A
25	DA	1150	C
25	DA	1155	A
25	DA	1170	G
25	DA	1171	G
25	DA	1204	A
25	DA	1205	U
25	DA	1210	A
25	DA	1211	U
25	DA	1212	G
25	DA	1213	A
25	DA	1219	G
25	DA	1220	A
25	DA	1236	G
25	DA	1237	A
25	DA	1240	U
25	DA	1241	A
25	DA	1244	G
25	DA	1253	A
25	DA	1256	G
25	DA	1262	A
25	DA	1264	G
25	DA	1268	A
25	DA	1271	G
25	DA	1272	A
25	DA	1273	U
25	DA	1278	A
25	DA	1287	A

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Mol	Chain	Res	Type
25	DA	1298	C
25	DA	1300	U
25	DA	1301	A
25	DA	1308	A
25	DA	1314	C
25	DA	1319	G
25	DA	1329	U
25	DA	1332	G
25	DA	1333	C
25	DA	1345	C
25	DA	1352	U
25	DA	1359	A
25	DA	1360	A
25	DA	1365	A
25	DA	1368	G
25	DA	1370	C
25	DA	1373	A
25	DA	1379	A
25	DA	1384	A
25	DA	1385	G
25	DA	1386	C
25	DA	1416	G
25	DA	1419	A
25	DA	1420	U
25	DA	1421	G
25	DA	1427	A
25	DA	1428	C
25	DA	1437	C
25	DA	1445	A
25	DA	1448	G
25	DA	1449	A
25	DA	1450	G
25	DA	1452	A
25	DA	1455	G
25	DA	1465	G
25	DA	1467	C
25	DA	1471	A
25	DA	1478	G
25	DA	1482	G
25	DA	1489	U
25	DA	1493	C
25	DA	1496	A

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Mol	Chain	Res	Type
25	DA	1497	U
25	DA	1507	A
25	DA	1508	A
25	DA	1509	C
25	DA	1509(A)	A
25	DA	1510	G
25	DA	1525	G
25	DA	1531	C
25	DA	1537	G
25	DA	1541	G
25	DA	1542	A
25	DA	1543	C
25	DA	1547	C
25	DA	1558	A
25	DA	1559	G
25	DA	1569	A
25	DA	1578	U
25	DA	1579	A
25	DA	1581	G
25	DA	1584	C
25	DA	1586	A
25	DA	1598	C
25	DA	1603	A
25	DA	1608	A
25	DA	1609	A
25	DA	1616	A
25	DA	1617	C
25	DA	1619	G
25	DA	1621	U
25	DA	1625	C
25	DA	1640	C
25	DA	1648	C
25	DA	1654	A
25	DA	1655	A
25	DA	1665	A
25	DA	1674	G
25	DA	1676	A
25	DA	1695	G
25	DA	1696	G
25	DA	1700	A
25	DA	1701	A
25	DA	1703	G

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Mol	Chain	Res	Type
25	DA	1721	G
25	DA	1722	A
25	DA	1740	G
25	DA	1742	G
25	DA	1746	G
25	DA	1752	C
25	DA	1756	G
25	DA	1758	G
25	DA	1762	A
25	DA	1763	G
25	DA	1764	G
25	DA	1769	G
25	DA	1773	A
25	DA	1779	U
25	DA	1780	A
25	DA	1781	C
25	DA	1782	C
25	DA	1786	A
25	DA	1791	A
25	DA	1799	G
25	DA	1800	C
25	DA	1801	G
25	DA	1811	G
25	DA	1812	A
25	DA	1816	G
25	DA	1819	A
25	DA	1820	U
25	DA	1827	C
25	DA	1828	G
25	DA	1829	A
25	DA	1834	U
25	DA	1835	G
25	DA	1842	G
25	DA	1847	A
25	DA	1859	A
25	DA	1860	G
25	DA	1861	G
25	DA	1877	A
25	DA	1878	G
25	DA	1896	G
25	DA	1900	A
25	DA	1906	G

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Mol	Chain	Res	Type
25	DA	1913	A
25	DA	1914	C
25	DA	1915	U
25	DA	1920	C
25	DA	1929	G
25	DA	1930	G
25	DA	1934	C
25	DA	1936	A
25	DA	1938	A
25	DA	1950	G
25	DA	1955	U
25	DA	1963	U
25	DA	1964	G
25	DA	1967	C
25	DA	1968	G
25	DA	1969	A
25	DA	1970	A
25	DA	1971	A
25	DA	1972	A
25	DA	1979	C
25	DA	1980	G
25	DA	1982	C
25	DA	1984	G
25	DA	1991	U
25	DA	1992	G
25	DA	1993	U
25	DA	1996	C
25	DA	1997	G
25	DA	2018	G
25	DA	2020	A
25	DA	2023	G
25	DA	2031	A
25	DA	2032	G
25	DA	2033	A
25	DA	2036	C
25	DA	2039	C
25	DA	2043	C
25	DA	2049	G
25	DA	2052	G
25	DA	2055	C
25	DA	2056	G
25	DA	2060	A

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Mol	Chain	Res	Type
25	DA	2061	G
25	DA	2062	A
25	DA	2069	G
25	DA	2070	G
25	DA	2082	A
25	DA	2097	C
25	DA	2099	U
25	DA	2103	C
25	DA	2104	G
25	DA	2105	C
25	DA	2185	C
25	DA	2187	G
25	DA	2188	C
25	DA	2191	G
25	DA	2192	G
25	DA	2193	G
25	DA	2198	A
25	DA	2199	A
25	DA	2200	C
25	DA	2201	C
25	DA	2206	G
25	DA	2207	G
25	DA	2208	A
25	DA	2219	G
25	DA	2225	A
25	DA	2238	G
25	DA	2239	G
25	DA	2240	C
25	DA	2257	U
25	DA	2275	C
25	DA	2279	G
25	DA	2283	C
25	DA	2287	A
25	DA	2288	A
25	DA	2289	G
25	DA	2298	A
25	DA	2304	G
25	DA	2305	A
25	DA	2311	A
25	DA	2319	G
25	DA	2320	A
25	DA	2321	G

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Mol	Chain	Res	Type
25	DA	2322	A
25	DA	2324	C
25	DA	2325	G
25	DA	2327	A
25	DA	2328	A
25	DA	2334	G
25	DA	2336	A
25	DA	2343	C
25	DA	2347	C
25	DA	2349	G
25	DA	2350	C
25	DA	2352	A
25	DA	2359	C
25	DA	2366	A
25	DA	2375	G
25	DA	2383	G
25	DA	2384	G
25	DA	2385	C
25	DA	2388	A
25	DA	2391	G
25	DA	2392	A
25	DA	2400	G
25	DA	2406	U
25	DA	2410	G
25	DA	2414	G
25	DA	2416	C
25	DA	2421	G
25	DA	2422	A
25	DA	2423	U
25	DA	2425	A
25	DA	2426	A
25	DA	2427	C
25	DA	2428	G
25	DA	2429	G
25	DA	2430	A
25	DA	2432	A
25	DA	2435	A
25	DA	2436	G
25	DA	2439	A
25	DA	2440	C
25	DA	2441	C
25	DA	2445	G

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Mol	Chain	Res	Type
25	DA	2448	A
25	DA	2459	A
25	DA	2469	A
25	DA	2470	G
25	DA	2474	C
25	DA	2476	A
25	DA	2479	G
25	DA	2480	C
25	DA	2481	G
25	DA	2486	G
25	DA	2497	A
25	DA	2502	G
25	DA	2504	U
25	DA	2505	G
25	DA	2506	U
25	DA	2509	G
25	DA	2517	C
25	DA	2518	A
25	DA	2520	C
25	DA	2525	G
25	DA	2529	G
25	DA	2535	G
25	DA	2553	G
25	DA	2554	U
25	DA	2566	A
25	DA	2567	G
25	DA	2569	G
25	DA	2572	A
25	DA	2573	C
25	DA	2582	G
25	DA	2585	U
25	DA	2586	C
25	DA	2601	C
25	DA	2602	A
25	DA	2608	G
25	DA	2609	U
25	DA	2611	U
25	DA	2612	C
25	DA	2615	U
25	DA	2623	G
25	DA	2629	A
25	DA	2630	G

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Mol	Chain	Res	Type
25	DA	2632	A
25	DA	2636	U
25	DA	2646	C
25	DA	2663	G
25	DA	2669	G
25	DA	2673	G
25	DA	2675	A
25	DA	2679	A
25	DA	2686	G
25	DA	2689	U
25	DA	2690	C
25	DA	2691	C
25	DA	2702	U
25	DA	2711	A
25	DA	2712(A)	A
25	DA	2713	A
25	DA	2714	G
25	DA	2722	G
25	DA	2726	U
25	DA	2727	G
25	DA	2733	A
25	DA	2735	G
25	DA	2744	G
25	DA	2752	C
25	DA	2756	U
25	DA	2758	A
25	DA	2761	G
25	DA	2764	A
25	DA	2765	A
25	DA	2766	G
25	DA	2769	C
25	DA	2778	A
25	DA	2780	G
25	DA	2787	C
25	DA	2789	C
25	DA	2790	A
25	DA	2791	C
25	DA	2802	G
25	DA	2803	C
25	DA	2807	G
25	DA	2808	U
25	DA	2812	G

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Mol	Chain	Res	Type
25	DA	2818	G
25	DA	2820	A
25	DA	2821	A
25	DA	2825	C
25	DA	2833	G
25	DA	2834	G
25	DA	2835	A
25	DA	2836	U
25	DA	2850	A
25	DA	2851	A
25	DA	2872	G
25	DA	2873	A
25	DA	2879	C
25	DA	2880	C
25	DA	2892	A
25	DA	2895	U
26	DB	2	C
26	DB	7	G
26	DB	9	G
26	DB	12	C
26	DB	13	A
26	DB	23	G
26	DB	24	G
26	DB	30	C
26	DB	31	C
26	DB	40	U
26	DB	44	G
26	DB	45	A
26	DB	52	A
26	DB	53	A
26	DB	54	G
26	DB	56	G
26	DB	67	G
26	DB	73	A
26	DB	84	C
26	DB	96	U
26	DB	97	G
26	DB	106	G
26	DB	110	G
26	DB	116	G
26	DB	117	G
26	DB	120	A

All (188) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	60	A
1	AA	115	G
1	AA	119	A
1	AA	266	G
1	AA	327	A
1	AA	343	U
1	AA	366	C
1	AA	428	G
1	AA	429	U
1	AA	509	A
1	AA	533	A
1	AA	560	U
1	AA	660	G
1	AA	687	A
1	AA	748	C
1	AA	793	U
1	AA	828	A
1	AA	913	A
1	AA	991	U
1	AA	992	U
1	AA	1019	C
1	AA	1065	U
1	AA	1067	A
1	AA	1126	U
1	AA	1165	C
1	AA	1201	A
1	AA	1256	A
1	AA	1281	U
1	AA	1285	A
1	AA	1300	G
1	AA	1456	G
1	AA	1504	G
1	AA	1530	G
23	AV	9	G
25	BA	34	C
25	BA	102	G
25	BA	196	A
25	BA	249	C
25	BA	271(K)	U
25	BA	271(L)	U
25	BA	271(M)	G
25	BA	278	A

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Mol	Chain	Res	Type
25	BA	352	G
25	BA	362	U
25	BA	363(E)	U
25	BA	405	U
25	BA	474	G
25	BA	481	G
25	BA	587	C
25	BA	652(A)	A
25	BA	685	A
25	BA	752	A
25	BA	764	A
25	BA	774	A
25	BA	827	U
25	BA	888	C
25	BA	900	A
25	BA	915	C
25	BA	1026	U
25	BA	1047	G
25	BA	1106	G
25	BA	1108	U
25	BA	1142(A)	A
25	BA	1174	A
25	BA	1175	U
25	BA	1176	G
25	BA	1210	A
25	BA	1253	A
25	BA	1286	A
25	BA	1301	A
25	BA	1379	A
25	BA	1420	U
25	BA	1427	A
25	BA	1507	A
25	BA	1558	A
25	BA	1559	G
25	BA	1608	A
25	BA	1609	A
25	BA	1653	G
25	BA	1781	C
25	BA	1799	G
25	BA	1819	A
25	BA	1914	C
25	BA	1992	G

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Mol	Chain	Res	Type
25	BA	2062	A
25	BA	2318	G
25	BA	2319	G
25	BA	2335	A
25	BA	2405	G
25	BA	2406	U
25	BA	2422	A
25	BA	2439	A
25	BA	2506	U
25	BA	2610	C
25	BA	2689	U
25	BA	2778	A
25	BA	2789	C
25	BA	2834	G
1	CA	60	A
1	CA	65	U
1	CA	115	G
1	CA	119	A
1	CA	149	A
1	CA	266	G
1	CA	366	C
1	CA	428	G
1	CA	429	U
1	CA	509	A
1	CA	560	U
1	CA	562	C
1	CA	687	A
1	CA	748	C
1	CA	793	U
1	CA	828	A
1	CA	840	C
1	CA	913	A
1	CA	991	U
1	CA	992	U
1	CA	1049	U
1	CA	1061	G
1	CA	1064	G
1	CA	1065	U
1	CA	1067	A
1	CA	1201	A
1	CA	1256	A
1	CA	1279	A

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Mol	Chain	Res	Type
1	CA	1285	A
1	CA	1300	G
1	CA	1492	A
1	CA	1504	G
1	CA	1530	G
25	DA	9	U
25	DA	34	C
25	DA	71	A
25	DA	102	G
25	DA	196	A
25	DA	249	C
25	DA	271(M)	G
25	DA	310	A
25	DA	363(E)	U
25	DA	474	G
25	DA	481	G
25	DA	503	A
25	DA	587	C
25	DA	669	G
25	DA	685	A
25	DA	746	A
25	DA	752	A
25	DA	774	A
25	DA	827	U
25	DA	856	C
25	DA	888	C
25	DA	900	A
25	DA	974	G
25	DA	1026	U
25	DA	1210	A
25	DA	1332	G
25	DA	1378	A
25	DA	1379	A
25	DA	1420	U
25	DA	1427	A
25	DA	1507	A
25	DA	1530	C
25	DA	1558	A
25	DA	1559	G
25	DA	1608	A
25	DA	1653	G
25	DA	1819	A

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Mol	Chain	Res	Type
25	DA	1914	C
25	DA	1963	U
25	DA	1992	G
25	DA	2019	A
25	DA	2238	G
25	DA	2282	G
25	DA	2288	A
25	DA	2318	G
25	DA	2319	G
25	DA	2326	C
25	DA	2335	A
25	DA	2405	G
25	DA	2439	A
25	DA	2689	U
25	DA	2726	U
25	DA	2778	A
25	DA	2789	C
25	DA	2802	G
26	DB	44	G
26	DB	52	A

5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

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

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

Of 2350 ligands modelled in this entry, 2350 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data i

6.1 Protein, DNA and RNA chains i

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	AA	1466/1522 (96%)	-0.12	23 (1%) 74 62	43, 93, 137, 172	0
1	CA	1461/1522 (95%)	-0.00	32 (2%) 65 50	55, 104, 145, 167	0
2	AB	233/256 (91%)	-0.23	3 (1%) 79 67	72, 113, 134, 153	0
2	CB	235/256 (91%)	0.03	9 (3%) 44 29	100, 125, 139, 147	0
3	AC	204/239 (85%)	-0.15	3 (1%) 76 63	97, 112, 125, 133	0
3	CC	206/239 (86%)	0.13	10 (4%) 33 20	110, 125, 136, 142	0
4	AD	208/209 (99%)	-0.29	2 (0%) 84 75	76, 103, 118, 125	0
4	CD	208/209 (99%)	-0.33	0 100 100	85, 98, 114, 120	0
5	AE	148/162 (91%)	-0.36	1 (0%) 89 83	67, 89, 108, 134	0
5	CE	149/162 (91%)	-0.26	1 (0%) 89 83	83, 99, 110, 131	0
6	AF	100/101 (99%)	-0.45	0 100 100	68, 88, 104, 110	0
6	CF	100/101 (99%)	-0.40	0 100 100	78, 96, 110, 117	0
7	AG	154/156 (98%)	-0.15	5 (3%) 51 36	87, 102, 120, 133	0
7	CG	154/156 (98%)	0.14	13 (8%) 14 7	107, 119, 133, 144	0
8	AH	138/138 (100%)	-0.37	0 100 100	73, 91, 100, 111	0
8	CH	138/138 (100%)	-0.34	1 (0%) 89 83	82, 100, 111, 116	0
9	AI	125/128 (97%)	0.05	3 (2%) 62 47	71, 114, 126, 137	0
9	CI	125/128 (97%)	0.43	13 (10%) 8 5	101, 130, 138, 142	0
10	AJ	96/105 (91%)	0.40	9 (9%) 11 6	88, 119, 136, 140	0
10	CJ	96/105 (91%)	0.95	17 (17%) 2 1	111, 133, 141, 143	0
11	AK	115/129 (89%)	-0.35	0 100 100	53, 87, 104, 113	0
11	CK	114/129 (88%)	-0.24	1 (0%) 85 78	78, 103, 118, 127	0
12	AL	122/132 (92%)	-0.47	0 100 100	61, 84, 100, 111	0
12	CL	122/132 (92%)	-0.35	1 (0%) 87 80	72, 90, 105, 114	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	AM	115/126 (91%)	-0.31	0 100 100	66, 100, 113, 118	0
13	CM	112/126 (88%)	0.12	2 (1%) 71 58	102, 127, 135, 139	0
14	AN	59/61 (96%)	-0.05	1 (1%) 73 60	94, 106, 114, 121	0
14	CN	59/61 (96%)	0.51	5 (8%) 13 7	116, 125, 133, 135	0
15	AO	88/89 (98%)	-0.35	0 100 100	65, 86, 106, 117	0
15	CO	88/89 (98%)	-0.29	0 100 100	74, 96, 114, 118	0
16	AP	81/88 (92%)	-0.22	0 100 100	83, 100, 122, 127	0
16	CP	82/88 (93%)	-0.25	1 (1%) 81 69	84, 94, 112, 122	0
17	AQ	99/105 (94%)	-0.22	1 (1%) 84 75	68, 89, 104, 113	0
17	CQ	99/105 (94%)	-0.34	0 100 100	77, 95, 110, 113	0
18	AR	68/88 (77%)	-0.44	1 (1%) 76 63	69, 84, 102, 106	0
18	CR	68/88 (77%)	-0.25	0 100 100	82, 92, 111, 115	0
19	AS	81/93 (87%)	0.01	2 (2%) 61 47	96, 110, 130, 141	0
19	CS	75/93 (80%)	0.66	5 (6%) 21 12	107, 131, 142, 146	0
20	AT	96/106 (90%)	-0.32	0 100 100	77, 97, 113, 118	0
20	CT	104/106 (98%)	-0.15	3 (2%) 55 41	81, 101, 123, 139	0
21	AU	25/27 (92%)	0.42	0 100 100	80, 98, 105, 107	0
21	CU	23/27 (85%)	1.50	4 (17%) 2 1	115, 126, 132, 134	0
22	AY	132/140 (94%)	1.59	37 (28%) 1 0	69, 110, 138, 152	0
23	AV	77/77 (100%)	-0.05	1 (1%) 79 67	55, 82, 112, 134	0
23	CV	77/77 (100%)	0.05	1 (1%) 79 67	73, 109, 133, 156	0
24	AX	6/16 (37%)	1.06	1 (16%) 2 1	67, 73, 127, 128	0
24	CX	6/16 (37%)	1.05	2 (33%) 0 0	89, 96, 142, 147	0
25	BA	2752/2915 (94%)	-0.42	30 (1%) 82 72	23, 43, 115, 170	0
25	DA	2722/2915 (93%)	-0.25	50 (1%) 71 58	44, 74, 127, 170	0
26	BB	120/122 (98%)	-0.46	0 100 100	36, 64, 90, 125	0
26	DB	120/122 (98%)	0.07	1 (0%) 87 80	73, 114, 129, 146	0
27	BD	275/276 (99%)	-0.69	1 (0%) 93 90	27, 43, 62, 110	0
27	DD	275/276 (99%)	-0.45	2 (0%) 89 83	41, 62, 82, 100	0
28	BE	204/206 (99%)	-0.69	0 100 100	22, 45, 71, 94	0
28	DE	204/206 (99%)	-0.45	1 (0%) 91 87	43, 74, 100, 113	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
29	BF	203/210 (96%)	-0.61	0 100 100	26, 49, 87, 115	0
29	DF	203/210 (96%)	-0.41	0 100 100	47, 88, 114, 127	0
30	BG	181/182 (99%)	-0.46	0 100 100	58, 77, 105, 116	0
30	DG	180/182 (98%)	-0.16	1 (0%) 90 84	101, 117, 127, 136	0
31	BH	174/180 (96%)	-0.52	0 100 100	38, 65, 84, 98	0
31	DH	174/180 (96%)	0.33	8 (4%) 36 23	96, 116, 130, 140	0
32	BI	147/148 (99%)	-0.38	0 100 100	50, 95, 112, 128	0
32	DI	146/148 (98%)	-0.11	2 (1%) 78 65	68, 108, 126, 131	0
33	BN	140/140 (100%)	-0.70	0 100 100	30, 42, 69, 83	0
33	DN	140/140 (100%)	-0.34	0 100 100	64, 86, 107, 117	0
34	BO	122/122 (100%)	-0.69	0 100 100	33, 52, 71, 82	0
34	DO	122/122 (100%)	-0.58	0 100 100	57, 73, 88, 96	0
35	BP	149/150 (99%)	-0.60	0 100 100	25, 55, 86, 108	0
35	DP	149/150 (99%)	-0.30	0 100 100	52, 91, 116, 127	0
36	BQ	141/141 (100%)	-0.64	0 100 100	33, 50, 70, 90	0
36	DQ	141/141 (100%)	-0.33	2 (1%) 78 65	67, 90, 106, 114	0
37	BR	118/118 (100%)	-0.74	0 100 100	27, 41, 59, 67	0
37	DR	118/118 (100%)	-0.55	0 100 100	49, 65, 86, 95	0
38	BS	110/112 (98%)	-0.61	0 100 100	44, 62, 86, 97	0
38	DS	110/112 (98%)	-0.18	0 100 100	90, 109, 119, 127	0
39	BT	132/146 (90%)	-0.73	0 100 100	41, 55, 94, 127	0
39	DT	130/146 (89%)	-0.51	0 100 100	62, 77, 108, 123	0
40	BU	116/118 (98%)	-0.77	1 (0%) 85 78	25, 36, 55, 71	0
40	DU	116/118 (98%)	-0.39	1 (0%) 85 78	54, 82, 103, 108	0
41	BV	100/101 (99%)	-0.77	0 100 100	28, 46, 73, 90	0
41	DV	100/101 (99%)	-0.18	0 100 100	56, 98, 119, 123	0
42	BW	112/113 (99%)	-0.64	0 100 100	28, 37, 63, 89	0
42	DW	111/113 (98%)	-0.41	1 (0%) 85 78	49, 63, 89, 114	0
43	BX	95/96 (98%)	-0.65	0 100 100	34, 46, 77, 92	0
43	DX	95/96 (98%)	-0.43	0 100 100	61, 77, 100, 107	0
44	BY	107/110 (97%)	-0.48	0 100 100	41, 60, 91, 109	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	DY	107/110 (97%)	-0.02	7 (6%) 22 12	77, 96, 112, 124	0
45	BZ	186/206 (90%)	-0.51	0 100 100	49, 76, 104, 126	0
45	DZ	189/206 (91%)	0.07	5 (2%) 59 45	98, 114, 131, 139	0
46	B0	76/85 (89%)	-0.64	0 100 100	32, 42, 59, 83	0
46	D0	77/85 (90%)	-0.09	0 100 100	73, 85, 101, 124	0
47	B1	97/98 (98%)	-0.48	0 100 100	32, 51, 90, 104	0
47	D1	97/98 (98%)	-0.24	2 (2%) 67 52	50, 72, 105, 115	0
48	B2	70/72 (97%)	-0.53	0 100 100	41, 60, 78, 103	0
48	D2	71/72 (98%)	-0.28	1 (1%) 78 65	78, 94, 106, 110	0
49	B3	59/60 (98%)	-0.71	0 100 100	33, 41, 76, 93	0
49	D3	58/60 (96%)	-0.03	0 100 100	71, 84, 114, 128	0
50	B4	46/71 (64%)	-0.57	0 100 100	78, 96, 112, 114	0
50	D4	46/71 (64%)	-0.10	0 100 100	118, 126, 136, 138	0
51	B5	59/60 (98%)	-0.78	0 100 100	25, 41, 62, 74	0
51	D5	59/60 (98%)	-0.56	0 100 100	47, 66, 85, 106	0
52	B6	53/54 (98%)	-0.67	0 100 100	42, 49, 66, 76	0
52	D6	53/54 (98%)	-0.36	0 100 100	67, 81, 93, 101	0
53	B7	48/49 (97%)	-0.45	1 (2%) 67 52	25, 33, 68, 89	0
53	D7	48/49 (97%)	-0.34	0 100 100	41, 53, 82, 105	0
54	B8	64/65 (98%)	-0.60	0 100 100	35, 41, 49, 72	0
54	D8	64/65 (98%)	-0.28	1 (1%) 74 62	60, 71, 83, 94	0
55	B9	36/37 (97%)	-0.36	0 100 100	33, 46, 58, 72	0
55	D9	35/37 (94%)	0.47	3 (8%) 13 7	73, 88, 103, 115	0
All	All	20489/21572 (94%)	-0.27	335 (1%) 74 62	22, 83, 131, 172	0

All (335) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
25	BA	1509	C	9.1
22	AY	34	SER	7.2
25	BA	2801(A)	A	5.9
1	CA	1286	A	5.8
25	BA	1508	A	5.7
22	AY	38	HIS	5.5

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Mol	Chain	Res	Type	RSRZ
25	DA	1509	C	5.2
19	CS	53	ASN	5.2
25	DA	2802	G	5.1
19	CS	12	ASP	5.0
10	CJ	10	GLY	4.9
22	AY	104	ALA	4.9
2	CB	232	PRO	4.8
25	BA	2802	G	4.8
22	AY	114	SER	4.7
1	CA	1043	C	4.6
22	AY	126	SER	4.6
25	DA	280	C	4.5
7	CG	82	GLY	4.5
1	AA	1532	U	4.4
25	DA	2896	C	4.4
22	AY	105	ARG	4.4
20	CT	105	SER	4.4
22	AY	116	GLU	4.4
25	BA	652(G)	G	4.4
23	AV	47	U	4.4
9	AI	8	GLY	4.4
25	DA	2790	A	4.3
25	DA	1508	A	4.2
10	CJ	34	VAL	4.2
31	DH	96	ALA	4.2
25	DA	888	C	4.2
2	CB	132	LYS	4.2
9	CI	124	GLN	4.2
10	AJ	10	GLY	4.2
1	AA	78	G	4.1
25	DA	2803	C	4.1
9	CI	115	GLY	4.1
25	BA	652(J)	G	4.1
25	DA	2805	G	4.1
25	DA	652(C)	G	4.0
25	BA	652(B)	A	4.0
1	CA	1021	G	4.0
10	CJ	20	ALA	4.0
10	CJ	73	ASP	4.0
47	D1	2	SER	4.0
22	AY	125	LYS	4.0
21	CU	24	ARG	4.0

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Mol	Chain	Res	Type	RSRZ
7	CG	155	ARG	3.9
25	BA	652(H)	C	3.9
25	DA	2801(A)	A	3.9
55	D9	12	ASP	3.9
3	CC	154	SER	3.8
10	AJ	73	ASP	3.8
1	AA	1531	A	3.8
22	AY	11	PRO	3.8
25	BA	2896	C	3.7
25	DA	2105	C	3.7
22	AY	75	GLN	3.7
7	CG	80	VAL	3.7
14	CN	8	GLU	3.7
25	DA	6	A	3.7
21	CU	17	THR	3.7
7	CG	154	TYR	3.7
7	CG	81	GLY	3.6
3	CC	160	ALA	3.6
25	DA	652(T)	C	3.6
19	CS	10	PHE	3.6
9	CI	9	ARG	3.5
25	DA	2894	G	3.5
19	CS	52	TYR	3.5
25	DA	2106	G	3.5
22	AY	119	LEU	3.5
10	CJ	27	ALA	3.5
25	BA	652(I)	C	3.5
25	DA	1536	C	3.5
3	CC	155	GLY	3.5
7	CG	83	ALA	3.4
10	AJ	72	VAL	3.4
7	AG	85	TYR	3.4
25	DA	272(A)	U	3.4
14	AN	8	GLU	3.4
7	AG	154	TYR	3.4
22	AY	35	THR	3.4
45	DZ	179	ASP	3.4
22	AY	122	LYS	3.4
14	CN	25	VAL	3.4
1	CA	1042	G	3.3
1	CA	1129	C	3.3
25	BA	1176	G	3.3

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Mol	Chain	Res	Type	RSRZ
3	CC	159	GLY	3.3
22	AY	127	SER	3.3
1	CA	999	C	3.3
22	AY	124	GLN	3.3
2	AB	37	ASN	3.3
20	CT	106	ALA	3.3
1	CA	630	G	3.3
21	CU	18	TYR	3.3
1	AA	91	C	3.2
10	CJ	47	PHE	3.2
22	AY	106	ARG	3.2
1	AA	1019	C	3.2
25	DA	652(B)	A	3.2
7	CG	78	ARG	3.2
25	DA	2807	G	3.2
1	AA	204	U	3.2
1	CA	1020	U	3.2
1	AA	1286	A	3.2
31	DH	2	SER	3.2
1	CA	1044	A	3.2
7	AG	82	GLY	3.2
25	BA	2106	G	3.2
10	CJ	35	SER	3.2
24	AX	1	A	3.2
25	DA	229	A	3.2
25	BA	2803	C	3.1
25	DA	2897	U	3.1
9	CI	123	PRO	3.1
25	DA	2793	G	3.1
19	CS	11	VAL	3.1
10	CJ	72	VAL	3.1
44	DY	80	GLY	3.1
22	AY	22	ALA	3.1
44	DY	90	LEU	3.1
25	BA	652(C)	G	3.1
22	AY	31	ASN	3.1
42	DW	94	ASP	3.1
1	CA	1018	C	3.1
1	CA	1019	C	3.0
22	AY	12	ASP	3.0
25	BA	892	G	3.0
25	BA	2805	G	3.0

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Mol	Chain	Res	Type	RSRZ
44	DY	89	PHE	3.0
1	AA	1129	C	3.0
22	AY	74	ALA	3.0
9	CI	21	PRO	3.0
9	CI	30	GLY	3.0
32	DI	85	GLU	3.0
22	AY	79	SER	3.0
1	AA	92	C	3.0
2	CB	133	LYS	3.0
25	DA	1043	C	3.0
25	BA	2105	C	3.0
25	DA	2804	C	3.0
22	AY	2	ILE	3.0
1	AA	1020	U	3.0
3	CC	81	GLY	3.0
3	AC	189	ALA	3.0
44	DY	1	MET	3.0
25	DA	281	G	3.0
25	DA	2794	C	2.9
22	AY	115	LYS	2.9
10	CJ	38	ILE	2.9
2	CB	229	VAL	2.9
2	CB	48	MET	2.9
10	AJ	37	PRO	2.9
1	CA	1261	A	2.9
1	CA	1275	A	2.9
1	CA	998	G	2.9
24	CX	1	A	2.9
10	CJ	48	THR	2.9
7	AG	78	ARG	2.8
36	DQ	33	GLY	2.8
25	DA	1533	G	2.8
25	BA	652(F)	G	2.8
10	CJ	19	SER	2.8
55	D9	14	CYS	2.8
55	D9	15	LYS	2.8
22	AY	77	TYR	2.8
25	DA	890	A	2.8
3	CC	66	VAL	2.8
44	DY	58	GLY	2.7
1	CA	1124	G	2.7
22	AY	117	ARG	2.7

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Mol	Chain	Res	Type	RSRZ
25	BA	652(Q)	G	2.7
27	BD	276	LYS	2.7
25	BA	652(S)	C	2.7
1	CA	1531	A	2.7
25	DA	889	C	2.7
25	DA	653	A	2.7
22	AY	121	SER	2.7
1	AA	630	G	2.7
48	D2	1	MET	2.7
19	AS	12	ASP	2.7
25	DA	2792	G	2.7
1	AA	1044	A	2.6
10	AJ	8	LEU	2.6
1	AA	73	G	2.6
25	DA	1042	G	2.6
25	DA	2104	G	2.6
10	AJ	69	ASN	2.6
7	AG	81	GLY	2.6
22	AY	99	THR	2.6
1	AA	999	C	2.6
25	DA	652(U)	G	2.6
2	CB	99	GLY	2.6
1	AA	71	C	2.6
25	BA	885	C	2.6
36	DQ	80	GLU	2.6
31	DH	61	HIS	2.5
25	DA	879	G	2.5
20	CT	3	GLN	2.5
1	AA	1137	C	2.5
7	CG	85	TYR	2.5
27	DD	38	LYS	2.5
1	CA	1045	C	2.5
22	AY	128	VAL	2.5
23	CV	1	C	2.5
44	DY	55	TYR	2.5
22	AY	102	LYS	2.5
25	BA	2897	U	2.5
25	DA	652(V)	C	2.5
10	AJ	35	SER	2.5
1	CA	1284	C	2.5
14	CN	35	ARG	2.5
1	CA	73	G	2.5

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Mol	Chain	Res	Type	RSRZ
1	AA	1447	A	2.5
7	CG	74	GLU	2.4
10	AJ	38	ILE	2.4
1	CA	1257	U	2.4
21	CU	14	TRP	2.4
25	BA	1175	U	2.4
1	CA	994	A	2.4
14	CN	17	LYS	2.4
4	AD	38	TYR	2.4
1	CA	204	U	2.4
25	DA	2895	U	2.4
9	CI	99	LEU	2.4
47	D1	23	LYS	2.4
22	AY	19	ALA	2.4
45	DZ	113	ALA	2.4
9	CI	7	THR	2.4
10	CJ	63	PHE	2.4
18	AR	85	LEU	2.4
1	CA	1447	A	2.4
3	CC	206	GLU	2.4
12	CL	18	VAL	2.4
25	DA	2791	C	2.3
8	CH	1	MET	2.3
13	CM	43	THR	2.3
31	DH	101	ARG	2.3
1	AA	201	C	2.3
9	CI	126	SER	2.3
1	CA	72	C	2.3
17	AQ	98	LEU	2.3
10	CJ	6	ILE	2.3
1	CA	1131	G	2.3
1	CA	1140	C	2.3
25	DA	2190	G	2.3
22	AY	27	GLY	2.3
45	DZ	114	GLY	2.3
22	AY	103	LYS	2.3
5	AE	6	PHE	2.3
1	CA	1271	G	2.3
1	CA	1285	A	2.3
2	AB	232	PRO	2.3
24	CX	2	A	2.3
25	BA	890	A	2.3

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Mol	Chain	Res	Type	RSRZ
31	DH	110	SER	2.3
31	DH	102	ALA	2.2
30	DG	27	ASN	2.2
10	CJ	85	LEU	2.2
40	DU	89	GLU	2.2
2	CB	15	VAL	2.2
45	DZ	1	MET	2.2
5	CE	94	ALA	2.2
7	CG	77	SER	2.2
22	AY	107	PRO	2.2
25	BA	652(R)	C	2.2
1	AA	1042	G	2.2
2	CB	33	TYR	2.2
2	CB	101	MET	2.2
16	CP	48	TRP	2.2
19	AS	39	THR	2.2
13	CM	7	VAL	2.2
25	BA	2104	G	2.2
25	DA	652(D)	C	2.2
25	DA	1537	G	2.2
10	CJ	97	GLU	2.2
9	CI	61	ALA	2.2
26	DB	120	A	2.2
1	CA	1219	U	2.2
1	CA	1260	C	2.2
25	BA	2804	C	2.2
25	DA	885	C	2.2
1	AA	1274	G	2.2
40	BU	117	GLN	2.2
31	DH	82	GLY	2.2
3	AC	193	TYR	2.1
45	DZ	156	LYS	2.1
10	CJ	8	LEU	2.1
14	CN	38	GLY	2.1
25	DA	2833	G	2.1
9	CI	62	TYR	2.1
10	AJ	89	ASP	2.1
11	CK	91	ARG	2.1
25	DA	11	G	2.1
4	AD	37	PRO	2.1
22	AY	37	ILE	2.1
22	AY	76	GLU	2.1

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Mol	Chain	Res	Type	RSRZ
9	CI	125	TYR	2.1
2	AB	118	LEU	2.1
9	CI	110	GLU	2.1
25	DA	10	G	2.1
7	CG	79	ARG	2.1
1	CA	995	C	2.1
22	AY	101	GLU	2.1
54	D8	2	PRO	2.1
3	CC	56	ASP	2.1
1	AA	98	G	2.1
1	AA	841	U	2.1
22	AY	49	PRO	2.1
25	BA	272(A)	U	2.1
28	DE	204	ALA	2.1
44	DY	48	ALA	2.1
25	DA	2808	U	2.1
31	DH	103	LEU	2.1
25	DA	652(E)	G	2.0
25	DA	1114	G	2.0
27	DD	276	LYS	2.0
1	AA	77	G	2.0
7	CG	152	ALA	2.0
9	AI	62	TYR	2.0
3	CC	77	ILE	2.0
9	AI	15	ALA	2.0
25	BA	2792	G	2.0
3	AC	56	ASP	2.0
53	B7	46	VAL	2.0
1	CA	1311	G	2.0
3	CC	189	ALA	2.0
7	CG	73	MET	2.0
10	CJ	23	ILE	2.0
25	BA	2793	G	2.0
25	DA	2100	G	2.0
32	DI	86	THR	2.0

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

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

6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

6.4 Ligands ⓘ

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	MG	BA	3367	1/1	0.85	0.81	93.45	50,50,50,50	0
56	MG	BA	3043	1/1	0.92	0.95	77.49	42,42,42,42	0
56	MG	AA	1735	1/1	0.92	0.72	55.22	84,84,84,84	0
56	MG	BA	3156	1/1	0.90	0.76	54.38	54,54,54,54	0
56	MG	DA	3153	1/1	0.90	0.79	47.18	66,66,66,66	0
56	MG	DA	3274	1/1	0.85	0.75	45.59	70,70,70,70	0
56	MG	BA	3076	1/1	0.93	0.51	42.66	39,39,39,39	0
56	MG	DA	3284	1/1	0.92	0.43	38.83	75,75,75,75	0
56	MG	BA	3250	1/1	0.92	0.41	38.06	27,27,27,27	0
56	MG	DA	3124	1/1	0.95	0.51	37.41	50,50,50,50	0
56	MG	BA	3614	1/1	0.94	0.44	36.40	58,58,58,58	0
56	MG	BA	3243	1/1	0.95	0.42	35.70	35,35,35,35	0
56	MG	BA	3488	1/1	0.85	0.69	32.53	35,35,35,35	0
56	MG	DA	3321	1/1	0.95	0.64	30.79	50,50,50,50	0
56	MG	BA	3227	1/1	0.94	0.36	30.71	41,41,41,41	0
56	MG	BA	3166	1/1	0.97	0.46	30.42	30,30,30,30	0
56	MG	BA	3252	1/1	0.97	0.49	30.08	20,20,20,20	0
56	MG	BA	3455	1/1	0.92	0.48	30.00	22,22,22,22	0
56	MG	DA	3537	1/1	0.96	0.51	28.37	68,68,68,68	0
56	MG	DD	302	1/1	0.97	0.52	28.19	48,48,48,48	0
56	MG	BA	3200	1/1	0.93	0.45	28.16	35,35,35,35	0
56	MG	DA	3347	1/1	0.71	0.57	27.29	77,77,77,77	0
56	MG	AA	1650	1/1	0.78	0.50	26.66	65,65,65,65	0
56	MG	BA	3853	1/1	0.79	0.30	26.52	76,76,76,76	0
56	MG	BA	3199	1/1	0.94	0.34	25.63	29,29,29,29	0
56	MG	DA	3192	1/1	0.80	0.59	25.21	71,71,71,71	0
56	MG	BA	3165	1/1	0.96	0.47	24.89	17,17,17,17	0
56	MG	BA	3220	1/1	0.96	0.37	24.50	27,27,27,27	0
56	MG	DA	3341	1/1	0.80	0.53	24.19	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3366	1/1	0.90	0.37	23.82	52,52,52,52	0
56	MG	BA	3437	1/1	0.88	0.52	23.61	63,63,63,63	0
56	MG	BA	3317	1/1	0.80	0.37	23.30	61,61,61,61	0
56	MG	D6	102	1/1	0.80	0.95	23.21	82,82,82,82	0
56	MG	CA	1682	1/1	0.94	0.49	22.60	73,73,73,73	0
56	MG	DA	3030	1/1	0.87	0.52	22.30	66,66,66,66	0
56	MG	BA	3782	1/1	0.91	0.44	22.01	75,75,75,75	0
56	MG	DA	3059	1/1	0.89	0.38	21.94	67,67,67,67	0
56	MG	CA	1605	1/1	0.83	0.52	21.93	59,59,59,59	0
56	MG	DA	3273	1/1	0.89	0.37	21.18	62,62,62,62	0
56	MG	BA	3453	1/1	0.95	0.59	21.17	63,63,63,63	0
56	MG	DA	3325	1/1	0.75	0.38	21.02	62,62,62,62	0
56	MG	BA	3051	1/1	0.94	0.37	20.24	41,41,41,41	0
56	MG	BA	3169	1/1	0.97	0.44	20.21	14,14,14,14	0
56	MG	DA	3156	1/1	0.88	0.48	19.31	57,57,57,57	0
56	MG	DA	3080	1/1	0.96	0.35	19.14	36,36,36,36	0
56	MG	AA	1728	1/1	0.95	0.50	18.99	81,81,81,81	0
56	MG	DA	3403	1/1	0.97	0.43	18.03	60,60,60,60	0
56	MG	BA	3059	1/1	0.98	0.34	17.59	25,25,25,25	0
56	MG	AA	1842	1/1	0.89	0.64	17.30	89,89,89,89	0
56	MG	BA	3183	1/1	0.98	0.40	17.13	22,22,22,22	0
56	MG	AA	1645	1/1	0.92	0.30	16.96	54,54,54,54	0
56	MG	DA	3041	1/1	0.96	0.48	16.96	54,54,54,54	0
56	MG	BD	303	1/1	0.95	0.40	16.78	29,29,29,29	0
56	MG	DA	3178	1/1	0.88	0.41	16.67	77,77,77,77	0
56	MG	DA	3536	1/1	0.97	0.33	16.42	54,54,54,54	0
56	MG	DA	3459	1/1	0.98	0.37	16.04	46,46,46,46	0
56	MG	BA	3188	1/1	0.87	0.33	15.06	74,74,74,74	0
56	MG	BA	3069	1/1	0.95	0.33	15.05	42,42,42,42	0
56	MG	DA	3172	1/1	0.91	0.44	15.05	51,51,51,51	0
56	MG	DA	3353	1/1	0.96	0.62	15.01	80,80,80,80	0
56	MG	AA	1607	1/1	0.91	0.29	14.90	44,44,44,44	0
56	MG	AA	1687	1/1	0.78	0.55	14.85	105,105,105,105	0
56	MG	BA	3875	1/1	0.94	0.38	14.60	74,74,74,74	0
56	MG	DA	3024	1/1	0.78	0.40	14.48	60,60,60,60	0
56	MG	DA	3087	1/1	0.82	0.36	14.44	40,40,40,40	0
56	MG	BE	301	1/1	0.96	0.42	14.43	36,36,36,36	0
56	MG	BA	3887	1/1	0.98	0.27	14.39	17,17,17,17	0
56	MG	BA	3450	1/1	0.96	0.26	13.85	42,42,42,42	0
56	MG	BA	3700	1/1	0.95	0.28	13.72	26,26,26,26	0
56	MG	DA	3419	1/1	0.94	0.25	13.69	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1625	1/1	0.94	0.42	13.67	71,71,71,71	0
56	MG	BA	3477	1/1	0.94	0.31	13.61	45,45,45,45	0
56	MG	BA	3098	1/1	0.85	0.28	13.60	51,51,51,51	0
56	MG	BV	201	1/1	0.96	0.38	13.55	39,39,39,39	0
56	MG	DA	3123	1/1	0.84	0.43	13.27	61,61,61,61	0
56	MG	AA	1619	1/1	0.90	0.41	13.24	68,68,68,68	0
56	MG	DA	3054	1/1	0.98	0.30	13.22	78,78,78,78	0
56	MG	BA	3340	1/1	0.91	0.31	13.16	55,55,55,55	0
56	MG	BP	201	1/1	0.94	0.34	13.14	33,33,33,33	0
56	MG	AA	1644	1/1	0.98	0.29	13.09	48,48,48,48	0
56	MG	AA	1636	1/1	0.94	0.42	12.99	65,65,65,65	0
56	MG	BA	3484	1/1	0.91	0.32	12.94	49,49,49,49	0
56	MG	BA	3084	1/1	0.95	0.26	12.88	43,43,43,43	0
56	MG	CA	1692	1/1	0.89	0.69	12.80	84,84,84,84	0
56	MG	CA	1628	1/1	0.91	0.38	12.70	51,51,51,51	0
56	MG	B3	101	1/1	0.91	0.51	12.70	57,57,57,57	0
56	MG	DA	3285	1/1	0.90	0.42	12.66	62,62,62,62	0
56	MG	BA	3154	1/1	0.84	0.33	12.58	53,53,53,53	0
56	MG	CA	1697	1/1	0.95	0.57	12.42	117,117,117,117	0
56	MG	DA	3097	1/1	0.98	0.46	12.37	31,31,31,31	0
56	MG	BA	3254	1/1	0.97	0.39	12.30	21,21,21,21	0
56	MG	AA	1822	1/1	0.80	0.41	12.15	77,77,77,77	0
56	MG	DA	3417	1/1	0.99	0.37	12.08	46,46,46,46	0
56	MG	DE	303	1/1	0.96	0.45	11.91	63,63,63,63	0
56	MG	CA	1737	1/1	0.82	0.29	11.88	90,90,90,90	0
56	MG	BA	3221	1/1	0.98	0.33	11.85	17,17,17,17	0
56	MG	BA	3218	1/1	0.97	0.23	11.79	20,20,20,20	0
56	MG	BA	3092	1/1	0.95	0.27	11.62	34,34,34,34	0
56	MG	DA	3017	1/1	0.83	0.32	11.32	69,69,69,69	0
56	MG	AA	1800	1/1	0.87	0.73	11.19	76,76,76,76	0
56	MG	DA	3452	1/1	0.95	0.35	11.18	60,60,60,60	0
56	MG	BA	3687	1/1	0.98	0.21	11.14	23,23,23,23	0
56	MG	BA	3048	1/1	0.77	0.35	11.01	54,54,54,54	0
56	MG	DA	3666	1/1	0.86	0.42	10.96	100,100,100,100	0
56	MG	DA	3045	1/1	0.97	0.23	10.83	62,62,62,62	0
56	MG	AA	1685	1/1	0.72	0.62	10.79	91,91,91,91	0
56	MG	DA	3244	1/1	0.94	0.33	10.58	64,64,64,64	0
56	MG	AA	1659	1/1	0.92	0.46	10.50	97,97,97,97	0
56	MG	CA	1743	1/1	0.94	0.59	10.37	86,86,86,86	0
56	MG	DA	3218	1/1	0.85	0.55	10.29	71,71,71,71	0
56	MG	DA	3399	1/1	0.96	0.38	10.29	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3548	1/1	0.96	0.25	10.27	39,39,39,39	0
56	MG	BB	201	1/1	0.94	0.38	10.06	57,57,57,57	0
56	MG	CA	1679	1/1	0.92	0.26	9.87	65,65,65,65	0
56	MG	DA	3250	1/1	0.92	0.41	9.79	62,62,62,62	0
56	MG	BA	3374	1/1	0.98	0.37	9.79	24,24,24,24	0
56	MG	BU	201	1/1	0.91	0.35	9.77	38,38,38,38	0
56	MG	BA	3073	1/1	0.95	0.66	9.76	39,39,39,39	0
56	MG	BA	3408	1/1	0.81	0.28	9.62	44,44,44,44	0
56	MG	DA	3393	1/1	0.97	0.31	9.59	63,63,63,63	0
56	MG	BA	3410	1/1	0.95	0.50	9.52	54,54,54,54	0
56	MG	D7	101	1/1	0.87	0.69	9.50	63,63,63,63	0
56	MG	BA	3419	1/1	0.93	0.25	9.50	62,62,62,62	0
56	MG	DA	3029	1/1	0.80	0.78	9.48	68,68,68,68	0
56	MG	DA	3068	1/1	0.97	0.33	9.43	44,44,44,44	0
56	MG	DA	3198	1/1	0.91	0.33	9.38	80,80,80,80	0
56	MG	BA	3210	1/1	0.92	0.28	9.36	36,36,36,36	0
56	MG	DA	3450	1/1	0.97	0.32	9.26	59,59,59,59	0
56	MG	DA	3552	1/1	0.98	0.28	9.14	39,39,39,39	0
56	MG	AA	1628	1/1	0.99	0.28	9.11	22,22,22,22	0
56	MG	DA	3598	1/1	0.96	0.34	9.01	69,69,69,69	0
56	MG	CA	1706	1/1	0.89	0.88	9.01	75,75,75,75	0
56	MG	DA	3277	1/1	0.86	0.26	8.88	67,67,67,67	0
56	MG	BA	3124	1/1	0.91	0.23	8.80	34,34,34,34	0
56	MG	AA	1782	1/1	0.96	0.23	8.68	51,51,51,51	0
56	MG	BA	3209	1/1	0.92	0.28	8.67	25,25,25,25	0
56	MG	BA	3123	1/1	0.87	0.25	8.65	58,58,58,58	0
56	MG	BA	3211	1/1	0.98	0.29	8.51	46,46,46,46	0
56	MG	BA	3759	1/1	0.95	0.22	8.46	40,40,40,40	0
56	MG	BB	213	1/1	0.93	0.39	8.38	58,58,58,58	0
56	MG	BA	3791	1/1	0.97	0.24	8.30	29,29,29,29	0
56	MG	DA	3079	1/1	0.94	0.39	8.23	57,57,57,57	0
56	MG	BA	3045	1/1	0.82	0.30	8.21	35,35,35,35	0
56	MG	DA	3286	1/1	0.83	0.35	8.21	69,69,69,69	0
56	MG	AA	1845	1/1	0.99	0.55	8.06	59,59,59,59	0
56	MG	DA	3515	1/1	0.98	0.23	8.04	51,51,51,51	0
56	MG	AA	1806	1/1	0.92	0.39	7.93	59,59,59,59	0
56	MG	DA	3051	1/1	0.93	0.40	7.91	60,60,60,60	0
56	MG	BA	3753	1/1	0.97	0.26	7.80	31,31,31,31	0
56	MG	BA	3375	1/1	0.94	0.27	7.74	47,47,47,47	0
56	MG	DA	3550	1/1	0.99	0.42	7.74	42,42,42,42	0
56	MG	DA	3576	1/1	0.90	0.31	7.71	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1778	1/1	0.97	0.35	7.64	81,81,81,81	0
56	MG	BA	3014	1/1	0.87	0.43	7.59	49,49,49,49	0
56	MG	DA	3433	1/1	0.97	0.26	7.59	46,46,46,46	0
56	MG	BA	3602	1/1	0.93	0.22	7.57	22,22,22,22	0
56	MG	DE	302	1/1	0.96	0.52	7.54	55,55,55,55	0
56	MG	DA	3121	1/1	0.95	0.32	7.43	37,37,37,37	0
56	MG	AA	1771	1/1	0.85	0.27	7.42	68,68,68,68	0
56	MG	DA	3146	1/1	0.89	0.25	7.36	66,66,66,66	0
56	MG	DA	3018	1/1	0.89	0.29	7.35	51,51,51,51	0
56	MG	DQ	202	1/1	0.92	0.38	7.34	77,77,77,77	0
56	MG	BA	3145	1/1	0.98	0.26	7.15	26,26,26,26	0
56	MG	DA	3601	1/1	0.95	0.31	7.09	53,53,53,53	0
56	MG	BA	3224	1/1	0.94	0.22	7.04	33,33,33,33	0
56	MG	DA	3142	1/1	0.93	0.26	7.00	50,50,50,50	0
56	MG	DA	3127	1/1	0.98	0.29	6.95	37,37,37,37	0
56	MG	AA	1739	1/1	0.82	0.54	6.92	99,99,99,99	0
56	MG	BA	3383	1/1	0.88	0.21	6.92	45,45,45,45	0
56	MG	BA	3550	1/1	0.99	0.26	6.88	27,27,27,27	0
56	MG	DA	3021	1/1	0.88	0.24	6.87	58,58,58,58	0
56	MG	DA	3572	1/1	0.98	0.26	6.80	45,45,45,45	0
56	MG	DA	3100	1/1	0.95	0.28	6.77	45,45,45,45	0
56	MG	BA	3582	1/1	0.93	0.20	6.70	30,30,30,30	0
56	MG	DA	3369	1/1	0.82	0.21	6.70	94,94,94,94	0
56	MG	AA	1663	1/1	0.94	0.22	6.69	76,76,76,76	0
56	MG	DA	3632	1/1	0.97	0.31	6.59	69,69,69,69	0
56	MG	DA	3625	1/1	0.77	0.27	6.58	80,80,80,80	0
56	MG	BA	3248	1/1	0.95	0.24	6.54	24,24,24,24	0
56	MG	AA	1711	1/1	0.75	0.42	6.45	76,76,76,76	0
56	MG	BA	3732	1/1	0.96	0.18	6.43	36,36,36,36	0
56	MG	DA	3101	1/1	0.94	0.33	6.30	53,53,53,53	0
56	MG	BA	3056	1/1	0.96	0.28	6.24	50,50,50,50	0
56	MG	BA	3052	1/1	0.94	0.28	6.24	35,35,35,35	0
56	MG	DA	3553	1/1	0.99	0.22	6.19	46,46,46,46	0
56	MG	DA	3427	1/1	0.98	0.29	6.14	45,45,45,45	0
56	MG	DA	3451	1/1	0.95	0.28	6.08	39,39,39,39	0
56	MG	DA	3460	1/1	0.92	0.28	6.07	67,67,67,67	0
56	MG	CA	1691	1/1	0.95	0.45	5.90	53,53,53,53	0
56	MG	DA	3510	1/1	0.80	0.23	5.89	77,77,77,77	0
56	MG	AA	1626	1/1	0.91	0.43	5.89	62,62,62,62	0
56	MG	CA	1656	1/1	0.90	0.28	5.85	77,77,77,77	0
56	MG	BA	3390	1/1	0.98	0.19	5.78	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1786	1/1	0.86	0.31	5.66	69,69,69,69	0
56	MG	CA	1693	1/1	0.89	0.35	5.59	83,83,83,83	0
56	MG	DA	3530	1/1	0.94	0.31	5.56	72,72,72,72	0
56	MG	DB	201	1/1	0.96	0.20	5.55	61,61,61,61	0
56	MG	DA	3486	1/1	0.99	0.24	5.45	42,42,42,42	0
56	MG	CA	1608	1/1	0.86	0.51	5.45	80,80,80,80	0
56	MG	DA	3624	1/1	0.86	0.24	5.44	82,82,82,82	0
56	MG	CA	1606	1/1	0.86	0.26	5.38	77,77,77,77	0
56	MG	DA	3251	1/1	0.91	0.27	5.20	62,62,62,62	0
56	MG	BA	3134	1/1	0.95	0.22	5.17	35,35,35,35	0
56	MG	DA	3461	1/1	0.96	0.28	5.14	50,50,50,50	0
56	MG	AA	1604	1/1	0.99	0.23	5.11	42,42,42,42	0
56	MG	CA	1690	1/1	0.97	0.30	5.07	74,74,74,74	0
56	MG	DA	3386	1/1	0.94	0.30	5.02	47,47,47,47	0
56	MG	BA	3225	1/1	0.90	0.23	5.01	46,46,46,46	0
56	MG	DA	3197	1/1	0.82	0.27	4.95	82,82,82,82	0
56	MG	BA	3581	1/1	0.96	0.18	4.92	29,29,29,29	0
56	MG	DA	3168	1/1	0.94	0.31	4.85	53,53,53,53	0
56	MG	BA	3193	1/1	0.93	0.25	4.76	45,45,45,45	0
56	MG	BA	3038	1/1	0.95	0.20	4.75	33,33,33,33	0
56	MG	BA	3467	1/1	0.92	0.32	4.73	56,56,56,56	0
56	MG	DA	3540	1/1	0.99	0.26	4.59	57,57,57,57	0
56	MG	CA	1726	1/1	0.93	0.26	4.56	70,70,70,70	0
56	MG	DT	203	1/1	0.91	0.19	4.55	73,73,73,73	0
56	MG	CA	1637	1/1	0.87	0.26	4.44	80,80,80,80	0
56	MG	AA	1797	1/1	0.93	0.34	4.34	65,65,65,65	0
56	MG	DA	3539	1/1	0.70	0.26	4.31	102,102,102,102	0
56	MG	BD	301	1/1	0.86	0.27	4.24	65,65,65,65	0
56	MG	AA	1776	1/1	0.96	0.22	4.24	89,89,89,89	0
56	MG	BA	3766	1/1	0.96	0.19	4.23	38,38,38,38	0
56	MG	DD	303	1/1	0.90	0.28	4.18	59,59,59,59	0
56	MG	DA	3615	1/1	0.91	0.20	4.17	77,77,77,77	0
56	MG	BA	3654	1/1	0.97	0.19	4.15	59,59,59,59	0
56	MG	BA	3868	1/1	0.92	0.20	4.13	34,34,34,34	0
56	MG	BA	3411	1/1	0.84	0.22	4.11	55,55,55,55	0
56	MG	BD	302	1/1	0.84	0.39	4.11	51,51,51,51	0
56	MG	DA	3175	1/1	0.90	0.22	4.08	75,75,75,75	0
56	MG	AA	1631	1/1	0.97	0.31	4.01	59,59,59,59	0
56	MG	DA	3677	1/1	0.98	0.26	3.99	51,51,51,51	0
56	MG	BA	3233	1/1	0.95	0.24	3.94	22,22,22,22	0
56	MG	CA	1788	1/1	0.73	0.28	3.94	118,118,118,118	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3376	1/1	0.96	0.35	3.92	43,43,43,43	0
56	MG	AD	302	1/1	0.96	0.39	3.92	79,79,79,79	0
56	MG	DA	3264	1/1	0.93	0.21	3.90	74,74,74,74	0
56	MG	DA	3075	1/1	0.94	0.42	3.88	84,84,84,84	0
56	MG	BA	3077	1/1	0.95	0.34	3.85	45,45,45,45	0
56	MG	AA	1635	1/1	0.90	0.20	3.83	65,65,65,65	0
56	MG	D6	103	1/1	0.96	0.32	3.83	93,93,93,93	0
56	MG	BA	3682	1/1	0.98	0.20	3.81	28,28,28,28	0
56	MG	BA	3702	1/1	0.97	0.22	3.79	49,49,49,49	0
56	MG	B2	102	1/1	0.77	0.35	3.74	66,66,66,66	0
56	MG	DA	3627	1/1	0.92	0.21	3.73	81,81,81,81	0
56	MG	CA	1761	1/1	0.96	0.29	3.70	68,68,68,68	0
56	MG	BG	201	1/1	0.82	0.32	3.70	54,54,54,54	0
56	MG	CA	1722	1/1	0.75	0.33	3.66	76,76,76,76	0
56	MG	DA	3558	1/1	0.96	0.25	3.66	59,59,59,59	0
56	MG	DA	3249	1/1	0.92	0.26	3.66	55,55,55,55	0
56	MG	DA	3567	1/1	0.86	0.29	3.64	77,77,77,77	0
56	MG	DA	3317	1/1	0.88	0.21	3.64	84,84,84,84	0
56	MG	DA	3692	1/1	0.91	0.24	3.58	46,46,46,46	0
56	MG	DA	3447	1/1	0.97	0.19	3.58	62,62,62,62	0
56	MG	DA	3141	1/1	0.91	0.24	3.57	60,60,60,60	0
56	MG	DA	3586	1/1	0.94	0.28	3.57	50,50,50,50	0
56	MG	BA	3203	1/1	0.94	0.19	3.55	44,44,44,44	0
56	MG	BF	305	1/1	0.93	0.22	3.43	52,52,52,52	0
56	MG	AA	1726	1/1	0.83	0.24	3.42	55,55,55,55	0
56	MG	DA	3357	1/1	0.92	0.24	3.38	51,51,51,51	0
56	MG	CA	1753	1/1	0.96	0.22	3.33	61,61,61,61	0
56	MG	DA	3312	1/1	0.84	0.29	3.30	52,52,52,52	0
56	MG	BA	3854	1/1	0.98	0.18	3.30	25,25,25,25	0
56	MG	DA	3585	1/1	0.92	0.23	3.30	104,104,104,104	0
56	MG	BA	3837	1/1	0.94	0.24	3.26	33,33,33,33	0
56	MG	BA	3872	1/1	0.92	0.19	3.25	24,24,24,24	0
56	MG	BA	3770	1/1	0.89	0.18	3.24	49,49,49,49	0
56	MG	DA	3599	1/1	0.98	0.26	3.23	50,50,50,50	0
56	MG	AA	1683	1/1	0.95	0.28	3.21	106,106,106,106	0
56	MG	CA	1602	1/1	0.96	0.25	3.21	72,72,72,72	0
56	MG	DA	3629	1/1	0.77	0.37	3.09	104,104,104,104	0
56	MG	CA	1647	1/1	0.84	0.24	3.07	71,71,71,71	0
56	MG	DF	302	1/1	0.96	0.34	3.06	75,75,75,75	0
56	MG	DA	3047	1/1	0.94	0.27	3.01	65,65,65,65	0
56	MG	BA	3030	1/1	0.95	0.18	2.97	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1630	1/1	0.96	0.21	2.97	98,98,98,98	0
56	MG	D0	101	1/1	0.91	0.21	2.96	79,79,79,79	0
56	MG	BA	3204	1/1	0.97	0.20	2.94	52,52,52,52	0
56	MG	BA	3029	1/1	0.94	0.21	2.89	33,33,33,33	0
56	MG	DA	3074	1/1	0.94	0.30	2.84	69,69,69,69	0
56	MG	BR	201	1/1	0.99	0.24	2.81	19,19,19,19	0
56	MG	CA	1621	1/1	0.95	0.20	2.81	100,100,100,100	0
56	MG	BA	3064	1/1	0.98	0.16	2.77	41,41,41,41	0
56	MG	DA	3044	1/1	0.96	0.21	2.75	62,62,62,62	0
56	MG	BA	3061	1/1	0.90	0.27	2.73	45,45,45,45	0
56	MG	DB	203	1/1	0.85	0.27	2.73	105,105,105,105	0
56	MG	BA	3805	1/1	0.93	0.19	2.65	63,63,63,63	0
56	MG	BA	3648	1/1	0.96	0.17	2.60	49,49,49,49	0
56	MG	D1	101	1/1	0.94	0.30	2.58	61,61,61,61	0
56	MG	BA	3809	1/1	0.97	0.17	2.54	40,40,40,40	0
56	MG	AA	1754	1/1	0.83	0.35	2.54	59,59,59,59	0
56	MG	DA	3646	1/1	0.94	0.17	2.43	62,62,62,62	0
56	MG	CA	1705	1/1	0.92	0.44	2.42	112,112,112,112	0
56	MG	AA	1648	1/1	0.91	0.21	2.40	65,65,65,65	0
56	MG	AA	1809	1/1	0.81	0.20	2.36	83,83,83,83	0
56	MG	DA	3109	1/1	0.92	0.20	2.36	74,74,74,74	0
56	MG	AA	1897	1/1	0.90	0.22	2.36	74,74,74,74	0
56	MG	DA	3354	1/1	0.97	0.22	2.36	43,43,43,43	0
56	MG	B1	101	1/1	0.85	0.29	2.33	60,60,60,60	0
56	MG	BA	3676	1/1	0.97	0.17	2.33	20,20,20,20	0
56	MG	AA	1874	1/1	0.92	0.24	2.32	95,95,95,95	0
56	MG	BA	3675	1/1	0.96	0.19	2.30	33,33,33,33	0
56	MG	AA	1838	1/1	0.80	0.20	2.30	72,72,72,72	0
56	MG	BA	3571	1/1	0.80	0.17	2.27	31,31,31,31	0
56	MG	DV	201	1/1	0.91	0.25	2.26	62,62,62,62	0
56	MG	DA	3679	1/1	0.95	0.21	2.26	76,76,76,76	0
56	MG	BA	3894	1/1	0.95	0.19	2.25	52,52,52,52	0
56	MG	DA	3525	1/1	0.93	0.18	2.22	77,77,77,77	0
56	MG	AA	1919	1/1	0.93	0.22	2.22	63,63,63,63	0
56	MG	CA	1745	1/1	0.65	0.23	2.17	99,99,99,99	0
56	MG	CA	1612	1/1	0.73	0.24	2.10	84,84,84,84	0
56	MG	AV	101	1/1	0.98	0.34	2.09	48,48,48,48	0
56	MG	CA	1732	1/1	0.89	0.23	2.09	81,81,81,81	0
56	MG	DA	3600	1/1	0.97	0.21	2.08	57,57,57,57	0
56	MG	AA	1872	1/1	0.97	0.18	2.06	41,41,41,41	0
56	MG	BA	3035	1/1	0.56	0.24	2.05	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1642	1/1	0.84	0.31	2.03	73,73,73,73	0
56	MG	BF	307	1/1	0.97	0.22	1.98	42,42,42,42	0
56	MG	CA	1758	1/1	0.99	0.21	1.95	56,56,56,56	0
56	MG	DA	3094	1/1	0.94	0.17	1.93	34,34,34,34	0
56	MG	DA	3596	1/1	0.94	0.19	1.93	67,67,67,67	0
56	MG	AA	1706	1/1	0.84	0.23	1.91	62,62,62,62	0
56	MG	BA	3611	1/1	0.95	0.14	1.85	43,43,43,43	0
56	MG	B2	101	1/1	0.88	0.21	1.84	63,63,63,63	0
56	MG	DA	3064	1/1	0.85	0.26	1.84	66,66,66,66	0
56	MG	DA	3518	1/1	0.98	0.23	1.84	46,46,46,46	0
56	MG	BA	3247	1/1	0.99	0.19	1.81	20,20,20,20	0
56	MG	CA	1615	1/1	0.91	0.23	1.78	74,74,74,74	0
56	MG	BA	3817	1/1	0.98	0.18	1.76	22,22,22,22	0
56	MG	BA	3106	1/1	0.95	0.17	1.74	28,28,28,28	0
56	MG	DA	3015	1/1	0.96	0.15	1.74	66,66,66,66	0
56	MG	AA	1660	1/1	0.98	0.22	1.73	59,59,59,59	0
56	MG	DA	3532	1/1	0.69	0.21	1.71	90,90,90,90	0
56	MG	AA	1652	1/1	0.97	0.28	1.71	69,69,69,69	0
56	MG	BA	3798	1/1	0.94	0.20	1.68	45,45,45,45	0
56	MG	DA	3441	1/1	0.89	0.18	1.68	72,72,72,72	0
56	MG	AA	1640	1/1	0.96	0.19	1.65	43,43,43,43	0
56	MG	BA	3413	1/1	0.92	0.19	1.65	58,58,58,58	0
56	MG	DA	3496	1/1	0.97	0.19	1.64	47,47,47,47	0
56	MG	AD	303	1/1	0.90	0.19	1.62	93,93,93,93	0
56	MG	CA	1701	1/1	0.72	0.20	1.62	109,109,109,109	0
56	MG	BA	3063	1/1	0.88	0.14	1.62	53,53,53,53	0
56	MG	BA	3784	1/1	0.97	0.21	1.60	88,88,88,88	0
56	MG	BA	3012	1/1	0.89	0.52	1.58	69,69,69,69	0
56	MG	DA	3425	1/1	0.93	0.18	1.56	50,50,50,50	0
56	MG	BA	3283	1/1	0.87	0.23	1.55	47,47,47,47	0
56	MG	BA	3127	1/1	0.92	0.17	1.55	41,41,41,41	0
56	MG	AI	201	1/1	0.93	0.26	1.54	66,66,66,66	0
56	MG	DA	3475	1/1	0.97	0.20	1.51	78,78,78,78	0
56	MG	DA	3531	1/1	0.99	0.23	1.46	66,66,66,66	0
56	MG	AA	1935	1/1	0.98	0.18	1.39	56,56,56,56	0
56	MG	DA	3594	1/1	0.96	0.22	1.38	44,44,44,44	0
56	MG	BA	3673	1/1	0.98	0.17	1.36	43,43,43,43	0
56	MG	DA	3384	1/1	0.96	0.20	1.35	51,51,51,51	0
56	MG	BA	3749	1/1	0.91	0.18	1.32	76,76,76,76	0
56	MG	BA	3540	1/1	0.97	0.16	1.26	19,19,19,19	0
56	MG	BA	3121	1/1	0.92	0.15	1.20	40,40,40,40	0
56	MG	BA	3836	1/1	0.97	0.20	1.19	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3120	1/1	0.87	0.26	1.14	51,51,51,51	0
56	MG	AA	1810	1/1	0.93	0.28	1.13	84,84,84,84	0
56	MG	BF	301	1/1	0.96	0.21	1.06	40,40,40,40	0
56	MG	AA	1601	1/1	0.93	0.21	1.02	65,65,65,65	0
56	MG	CA	1759	1/1	0.94	0.18	1.00	76,76,76,76	0
56	MG	BA	3879	1/1	0.89	0.18	0.99	53,53,53,53	0
56	MG	DA	3391	1/1	0.93	0.17	0.94	48,48,48,48	0
56	MG	BA	3011	1/1	0.90	0.34	0.94	54,54,54,54	0
56	MG	BA	3432	1/1	0.97	0.17	0.93	29,29,29,29	0
56	MG	BA	3859	1/1	0.97	0.15	0.88	31,31,31,31	0
56	MG	DA	3434	1/1	0.96	0.20	0.85	48,48,48,48	0
56	MG	DA	3385	1/1	0.97	0.18	0.85	48,48,48,48	0
56	MG	BA	3711	1/1	0.99	0.16	0.84	24,24,24,24	0
56	MG	BA	3132	1/1	0.97	0.14	0.84	44,44,44,44	0
56	MG	DA	3493	1/1	0.90	0.21	0.83	80,80,80,80	0
56	MG	DA	3042	1/1	0.92	0.16	0.76	47,47,47,47	0
56	MG	BA	3757	1/1	0.96	0.15	0.69	28,28,28,28	0
56	MG	AA	1821	1/1	0.85	0.22	0.69	78,78,78,78	0
57	ZN	AD	301	1/1	0.97	0.29	0.67	93,93,93,93	0
56	MG	DA	3308	1/1	0.97	0.16	0.65	60,60,60,60	0
56	MG	DA	3032	1/1	0.92	0.16	0.64	51,51,51,51	0
56	MG	CA	1618	1/1	0.89	0.15	0.60	78,78,78,78	0
56	MG	DA	3043	1/1	0.87	0.18	0.57	61,61,61,61	0
56	MG	BA	3748	1/1	0.89	0.15	0.53	28,28,28,28	0
56	MG	BA	3747	1/1	0.99	0.15	0.49	20,20,20,20	0
56	MG	DA	3067	1/1	0.95	0.17	0.44	45,45,45,45	0
56	MG	BA	3537	1/1	0.98	0.15	0.43	47,47,47,47	0
56	MG	DA	3503	1/1	0.95	0.15	0.40	80,80,80,80	0
56	MG	DA	3437	1/1	0.97	0.17	0.39	70,70,70,70	0
56	MG	DB	215	1/1	0.90	0.17	0.37	94,94,94,94	0
56	MG	CV	101	1/1	0.93	0.19	0.36	59,59,59,59	0
56	MG	BA	3100	1/1	0.96	0.16	0.33	48,48,48,48	0
56	MG	BB	205	1/1	0.99	0.13	0.33	29,29,29,29	0
56	MG	BA	3893	1/1	0.89	0.15	0.32	30,30,30,30	0
56	MG	DA	3513	1/1	0.93	0.17	0.31	59,59,59,59	0
56	MG	DE	304	1/1	0.92	0.22	0.30	70,70,70,70	0
56	MG	AA	1895	1/1	0.97	0.18	0.30	87,87,87,87	0
56	MG	BA	3845	1/1	0.99	0.14	0.25	37,37,37,37	0
56	MG	BA	3624	1/1	0.96	0.15	0.22	57,57,57,57	0
56	MG	CA	1773	1/1	0.41	0.15	0.18	124,124,124,124	0
56	MG	BA	3734	1/1	0.97	0.12	0.15	40,40,40,40	0
56	MG	CA	1607	1/1	0.90	0.16	0.11	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
57	ZN	CD	301	1/1	0.96	0.28	0.11	90,90,90,90	0
56	MG	BA	3044	1/1	0.94	0.13	0.10	46,46,46,46	0
56	MG	DA	3446	1/1	0.97	0.14	0.10	40,40,40,40	0
56	MG	CA	1644	1/1	0.86	0.17	0.09	69,69,69,69	0
56	MG	BA	3672	1/1	0.94	0.15	0.08	41,41,41,41	0
56	MG	DA	3431	1/1	0.98	0.14	0.07	33,33,33,33	0
56	MG	BA	3019	1/1	0.97	0.22	0.07	33,33,33,33	0
56	MG	BA	3865	1/1	0.94	0.14	0.05	97,97,97,97	0
56	MG	B0	103	1/1	0.94	0.17	0.05	68,68,68,68	0
56	MG	DA	3001	1/1	0.96	0.14	0.05	58,58,58,58	0
56	MG	DA	3506	1/1	0.99	0.14	0.05	66,66,66,66	0
56	MG	BA	3066	1/1	0.94	0.17	0.01	35,35,35,35	0
56	MG	CA	1678	1/1	0.93	0.19	0.01	84,84,84,84	0
56	MG	AA	1614	1/1	0.89	0.15	-0.03	72,72,72,72	0
56	MG	BA	3065	1/1	0.97	0.12	-0.07	28,28,28,28	0
56	MG	BA	3168	1/1	0.98	0.16	-0.11	27,27,27,27	0
56	MG	BA	3443	1/1	0.98	0.15	-0.14	41,41,41,41	0
56	MG	CA	1813	1/1	0.92	0.20	-0.14	113,113,113,113	0
56	MG	DA	3040	1/1	0.80	0.17	-0.17	78,78,78,78	0
56	MG	CA	1728	1/1	0.83	0.16	-0.18	83,83,83,83	0
56	MG	CA	1710	1/1	0.93	0.17	-0.22	95,95,95,95	0
56	MG	AA	1611	1/1	0.76	0.16	-0.24	97,97,97,97	0
56	MG	BA	3754	1/1	0.94	0.15	-0.26	68,68,68,68	0
56	MG	BA	3731	1/1	0.95	0.14	-0.29	53,53,53,53	0
56	MG	BA	3593	1/1	0.91	0.12	-0.29	54,54,54,54	0
56	MG	BA	3804	1/1	0.96	0.14	-0.31	59,59,59,59	0
56	MG	DT	201	1/1	0.80	0.20	-0.34	73,73,73,73	0
56	MG	DA	3472	1/1	0.85	0.14	-0.37	78,78,78,78	0
56	MG	CA	1658	1/1	0.89	0.18	-0.40	91,91,91,91	0
56	MG	AA	1864	1/1	0.96	0.14	-0.40	67,67,67,67	0
56	MG	DA	3561	1/1	0.99	0.17	-0.43	70,70,70,70	0
56	MG	AA	1608	1/1	0.92	0.17	-0.44	80,80,80,80	0
56	MG	BA	3831	1/1	0.97	0.14	-0.44	22,22,22,22	0
56	MG	BA	3062	1/1	0.97	0.14	-0.46	34,34,34,34	0
56	MG	BA	3856	1/1	0.96	0.14	-0.52	68,68,68,68	0
56	MG	BA	3630	1/1	0.98	0.13	-0.53	23,23,23,23	0
56	MG	BA	3576	1/1	0.97	0.13	-0.53	66,66,66,66	0
56	MG	AA	1873	1/1	0.92	0.15	-0.60	60,60,60,60	0
56	MG	BA	3601	1/1	0.98	0.15	-0.62	24,24,24,24	0
56	MG	BQ	204	1/1	0.97	0.15	-0.66	41,41,41,41	0
56	MG	DA	3387	1/1	0.99	0.16	-0.66	40,40,40,40	0
56	MG	BA	3037	1/1	0.96	0.14	-0.77	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3707	1/1	0.96	0.14	-0.79	25,25,25,25	0
57	ZN	D4	101	1/1	0.95	0.13	-0.80	178,178,178,178	0
56	MG	CA	1620	1/1	0.96	0.14	-0.84	70,70,70,70	0
56	MG	BA	3678	1/1	0.99	0.14	-0.85	22,22,22,22	0
56	MG	DA	3643	1/1	0.94	0.14	-0.88	89,89,89,89	0
56	MG	BA	3851	1/1	0.94	0.14	-0.89	35,35,35,35	0
56	MG	AA	1732	1/1	0.95	0.10	-0.90	65,65,65,65	0
56	MG	AA	1852	1/1	0.94	0.13	-0.96	93,93,93,93	0
56	MG	BA	3819	1/1	0.83	0.13	-0.97	71,71,71,71	0
56	MG	BA	3396	1/1	0.88	0.15	-0.98	95,95,95,95	0
56	MG	DA	3033	1/1	0.81	0.12	-1.00	74,74,74,74	0
56	MG	DF	303	1/1	0.95	0.12	-1.01	77,77,77,77	0
56	MG	BA	3664	1/1	0.98	0.14	-1.03	31,31,31,31	0
56	MG	CV	105	1/1	0.86	0.15	-1.03	106,106,106,106	0
57	ZN	B6	101	1/1	0.98	0.11	-1.11	48,48,48,48	0
57	ZN	AN	101	1/1	0.97	0.15	-1.13	164,164,164,164	0
56	MG	DA	3046	1/1	0.84	0.12	-1.16	79,79,79,79	0
56	MG	DA	3672	1/1	0.94	0.10	-1.19	87,87,87,87	0
57	ZN	B5	104	1/1	0.98	0.09	-1.20	75,75,75,75	0
56	MG	AA	1876	1/1	0.96	0.07	-1.21	89,89,89,89	0
57	ZN	D9	101	1/1	0.93	0.16	-1.27	117,117,117,117	0
57	ZN	DY	201	1/1	0.97	0.07	-1.28	123,123,123,123	0
57	ZN	D5	102	1/1	0.98	0.08	-1.29	88,88,88,88	0
56	MG	AA	1933	1/1	0.96	0.13	-1.29	54,54,54,54	0
56	MG	DA	3013	1/1	0.83	0.13	-1.32	97,97,97,97	0
56	MG	DA	3421	1/1	0.87	0.12	-1.36	52,52,52,52	0
56	MG	DA	3484	1/1	0.97	0.12	-1.37	45,45,45,45	0
56	MG	BA	3688	1/1	0.98	0.12	-1.44	25,25,25,25	0
56	MG	BG	202	1/1	0.91	0.07	-1.46	82,82,82,82	0
57	ZN	D6	101	1/1	0.97	0.09	-1.47	106,106,106,106	0
56	MG	DA	3022	1/1	0.97	0.10	-1.48	46,46,46,46	0
57	ZN	B4	101	1/1	0.97	0.05	-1.51	137,137,137,137	0
56	MG	AA	1943	1/1	0.80	0.14	-1.54	92,92,92,92	0
56	MG	DA	3563	1/1	0.88	0.11	-1.55	73,73,73,73	0
56	MG	BA	3767	1/1	0.94	0.12	-1.56	51,51,51,51	0
57	ZN	B9	101	1/1	0.99	0.08	-1.57	51,51,51,51	0
56	MG	B5	103	1/1	0.96	0.12	-1.60	61,61,61,61	0
56	MG	AA	1908	1/1	0.97	0.11	-1.63	97,97,97,97	0
56	MG	AA	1799	1/1	0.96	0.13	-1.68	95,95,95,95	0
56	MG	AA	1637	1/1	0.78	0.12	-1.74	73,73,73,73	0
56	MG	DA	3019	1/1	0.91	0.10	-1.74	65,65,65,65	0
56	MG	BE	305	1/1	0.92	0.11	-1.77	22,22,22,22	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3638	1/1	0.98	0.11	-1.81	48,48,48,48	0
56	MG	BA	3041	1/1	0.95	0.10	-1.86	43,43,43,43	0
56	MG	CA	1649	1/1	0.90	0.13	-1.87	78,78,78,78	0
56	MG	DA	3301	1/1	0.97	0.11	-1.88	62,62,62,62	0
56	MG	BA	3667	1/1	0.99	0.10	-1.90	27,27,27,27	0
56	MG	DA	3389	1/1	0.99	0.09	-1.93	66,66,66,66	0
56	MG	DA	3634	1/1	0.89	0.13	-1.95	70,70,70,70	0
56	MG	DA	3523	1/1	0.96	0.09	-1.96	86,86,86,86	0
56	MG	BA	3553	1/1	0.95	0.11	-2.01	29,29,29,29	0
56	MG	DA	3485	1/1	0.96	0.12	-2.03	42,42,42,42	0
56	MG	DA	3501	1/1	0.96	0.12	-2.10	81,81,81,81	0
56	MG	DA	3397	1/1	0.89	0.11	-2.13	35,35,35,35	0
57	ZN	CN	101	1/1	0.93	0.10	-2.13	165,165,165,165	0
57	ZN	BY	201	1/1	0.98	0.06	-2.15	70,70,70,70	0
56	MG	BA	3686	1/1	0.96	0.13	-2.26	26,26,26,26	0
56	MG	BA	3555	1/1	0.97	0.10	-2.29	47,47,47,47	0
56	MG	BB	222	1/1	0.91	0.11	-2.29	70,70,70,70	0
56	MG	DA	3038	1/1	0.92	0.11	-2.30	50,50,50,50	0
56	MG	CA	1748	1/1	0.81	0.15	-2.32	75,75,75,75	0
56	MG	DA	3398	1/1	0.79	0.12	-2.35	58,58,58,58	0
56	MG	BA	3680	1/1	0.96	0.08	-2.41	46,46,46,46	0
56	MG	DA	3597	1/1	0.98	0.10	-2.42	57,57,57,57	0
56	MG	DA	3665	1/1	0.92	0.09	-2.42	87,87,87,87	0
56	MG	DA	3489	1/1	0.90	0.10	-2.45	68,68,68,68	0
56	MG	AA	1878	1/1	0.89	0.14	-2.48	46,46,46,46	0
56	MG	BB	228	1/1	0.94	0.09	-2.49	69,69,69,69	0
56	MG	DA	3640	1/1	0.93	0.11	-2.55	63,63,63,63	0
56	MG	BA	3040	1/1	0.88	0.09	-2.55	46,46,46,46	0
56	MG	BA	3007	1/1	0.96	0.10	-2.56	91,91,91,91	0
56	MG	BA	3692	1/1	0.98	0.11	-2.59	30,30,30,30	0
56	MG	BA	3525	1/1	0.96	0.10	-2.61	40,40,40,40	0
56	MG	BA	3691	1/1	0.98	0.10	-2.62	31,31,31,31	0
56	MG	BA	3694	1/1	0.96	0.13	-2.66	29,29,29,29	0
56	MG	DA	3428	1/1	0.94	0.14	-2.68	53,53,53,53	0
56	MG	DA	3477	1/1	0.98	0.09	-2.69	78,78,78,78	0
56	MG	AA	1921	1/1	0.90	0.12	-2.77	97,97,97,97	0
56	MG	BA	3646	1/1	0.98	0.13	-2.88	44,44,44,44	0
56	MG	BA	3698	1/1	0.97	0.08	-2.88	44,44,44,44	0
56	MG	AA	1892	1/1	0.97	0.08	-2.90	84,84,84,84	0
56	MG	CA	1736	1/1	0.85	0.09	-2.92	97,97,97,97	0
56	MG	BA	3690	1/1	0.96	0.10	-3.00	27,27,27,27	0
56	MG	BA	3660	1/1	0.98	0.08	-3.02	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3420	1/1	0.98	0.10	-3.02	38,38,38,38	0
56	MG	DA	3416	1/1	0.97	0.11	-3.09	53,53,53,53	0
56	MG	DA	3455	1/1	0.98	0.14	-3.12	61,61,61,61	0
56	MG	DA	3252	1/1	0.92	0.11	-3.15	58,58,58,58	0
56	MG	DA	3584	1/1	0.96	0.10	-3.16	76,76,76,76	0
56	MG	AA	1938	1/1	0.96	0.10	-3.17	84,84,84,84	0
56	MG	BA	3544	1/1	0.97	0.11	-3.18	45,45,45,45	0
56	MG	DA	3402	1/1	0.98	0.11	-3.20	38,38,38,38	0
56	MG	BA	3539	1/1	0.97	0.10	-3.21	22,22,22,22	0
56	MG	BA	3810	1/1	0.93	0.12	-3.21	27,27,27,27	0
56	MG	BA	3669	1/1	0.99	0.09	-3.28	34,34,34,34	0
56	MG	BA	3087	1/1	0.83	0.10	-3.32	77,77,77,77	0
56	MG	DA	3444	1/1	0.93	0.08	-3.43	54,54,54,54	0
56	MG	DA	3466	1/1	0.84	0.07	-3.53	75,75,75,75	0
56	MG	BA	3643	1/1	0.98	0.05	-3.56	54,54,54,54	0
56	MG	BA	3723	1/1	0.94	0.09	-3.61	51,51,51,51	0
56	MG	DA	3556	1/1	0.95	0.07	-3.94	58,58,58,58	0
56	MG	DA	3439	1/1	0.93	0.08	-4.02	42,42,42,42	0
56	MG	BA	3585	1/1	0.98	0.06	-4.06	35,35,35,35	0
56	MG	DA	3463	1/1	0.96	0.10	-4.07	68,68,68,68	0
56	MG	BA	3021	1/1	0.96	0.11	-4.13	35,35,35,35	0
56	MG	DA	3495	1/1	0.93	0.10	-4.13	62,62,62,62	0
56	MG	DA	3407	1/1	0.99	0.11	-4.16	44,44,44,44	0
56	MG	DA	3504	1/1	0.93	0.08	-4.17	94,94,94,94	0
56	MG	DA	3406	1/1	0.97	0.11	-4.19	48,48,48,48	0
56	MG	BA	3671	1/1	0.97	0.06	-4.58	41,41,41,41	0
56	MG	BA	3547	1/1	0.98	0.04	-4.73	49,49,49,49	0
56	MG	BA	3631	1/1	0.99	0.08	-4.79	25,25,25,25	0
56	MG	BA	3689	1/1	0.98	0.09	-5.51	25,25,25,25	0
56	MG	BA	3666	1/1	0.97	0.06	-5.62	28,28,28,28	0
56	MG	BA	3575	1/1	0.95	0.11	-5.74	44,44,44,44	0
56	MG	BA	3552	1/1	0.97	0.06	-6.31	39,39,39,39	0
56	MG	BA	3559	1/1	0.99	0.09	-6.67	53,53,53,53	0
56	MG	DA	3408	1/1	0.99	0.07	-7.54	71,71,71,71	0
56	MG	DA	3555	1/1	0.96	0.05	-7.60	94,94,94,94	0
56	MG	BA	3695	1/1	0.99	0.07	-7.91	29,29,29,29	0
56	MG	DA	3487	1/1	0.94	0.05	-8.38	70,70,70,70	0
56	MG	BA	3534	1/1	0.99	0.06	-9.24	44,44,44,44	0
56	MG	BA	3590	1/1	0.98	0.07	-11.63	56,56,56,56	0
56	MG	B6	102	1/1	0.97	0.07	-13.49	73,73,73,73	0
56	MG	BA	3670	1/1	0.96	0.07	-14.40	57,57,57,57	0
56	MG	DA	3554	1/1	0.96	0.30	-	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3709	1/1	0.98	0.13	-	49,49,49,49	0
56	MG	DA	3573	1/1	0.95	0.17	-	42,42,42,42	0
56	MG	DB	207	1/1	0.88	0.12	-	79,79,79,79	0
56	MG	CD	302	1/1	0.93	0.38	-	53,53,53,53	0
56	MG	CA	1782	1/1	0.78	0.38	-	96,96,96,96	0
56	MG	BA	3185	1/1	0.95	0.11	-	57,57,57,57	0
56	MG	BA	3618	1/1	0.97	0.10	-	46,46,46,46	0
56	MG	BA	3768	1/1	0.97	0.04	-	90,90,90,90	0
56	MG	DA	3411	1/1	0.95	0.37	-	55,55,55,55	0
56	MG	AA	1811	1/1	0.85	0.27	-	120,120,120,120	0
56	MG	DA	3326	1/1	0.71	0.42	-	62,62,62,62	0
56	MG	BA	3293	1/1	0.90	0.32	-	45,45,45,45	0
56	MG	DA	3105	1/1	0.86	0.45	-	52,52,52,52	0
56	MG	BA	3806	1/1	0.94	0.21	-	57,57,57,57	0
56	MG	BA	3758	1/1	0.96	0.09	-	60,60,60,60	0
56	MG	DA	3331	1/1	0.82	0.50	-	77,77,77,77	0
56	MG	BA	3507	1/1	0.92	0.32	-	53,53,53,53	0
56	MG	CA	1764	1/1	0.92	0.11	-	75,75,75,75	0
56	MG	DA	3012	1/1	0.93	0.10	-	76,76,76,76	0
56	MG	BA	3882	1/1	0.79	0.09	-	73,73,73,73	0
56	MG	BA	3764	1/1	0.82	0.07	-	85,85,85,85	0
56	MG	CA	1657	1/1	0.84	0.14	-	64,64,64,64	0
56	MG	BA	3824	1/1	0.90	0.27	-	90,90,90,90	0
56	MG	AA	1778	1/1	0.74	0.60	-	83,83,83,83	0
56	MG	BA	3439	1/1	0.85	0.30	-	82,82,82,82	0
56	MG	DA	3225	1/1	0.98	0.38	-	43,43,43,43	0
56	MG	BA	3627	1/1	0.97	0.07	-	56,56,56,56	0
56	MG	BQ	201	1/1	0.95	0.17	-	18,18,18,18	0
56	MG	CA	1720	1/1	0.96	0.24	-	84,84,84,84	0
56	MG	BA	3258	1/1	0.68	0.40	-	71,71,71,71	0
56	MG	BA	3459	1/1	0.93	0.20	-	49,49,49,49	0
56	MG	BA	3463	1/1	0.73	0.34	-	57,57,57,57	0
56	MG	CA	1652	1/1	0.89	0.40	-	75,75,75,75	0
56	MG	BA	3117	1/1	0.92	0.34	-	46,46,46,46	0
56	MG	BA	3192	1/1	0.78	0.33	-	53,53,53,53	0
56	MG	AA	1796	1/1	0.77	0.33	-	77,77,77,77	0
56	MG	BA	3237	1/1	0.63	0.36	-	59,59,59,59	0
56	MG	BA	3685	1/1	0.98	0.07	-	40,40,40,40	0
56	MG	DA	3287	1/1	0.88	0.40	-	62,62,62,62	0
56	MG	DA	3401	1/1	0.97	0.29	-	36,36,36,36	0
56	MG	AA	1830	1/1	0.85	0.40	-	57,57,57,57	0
56	MG	CA	1683	1/1	0.74	0.32	-	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3281	1/1	0.87	0.52	-	72,72,72,72	0
56	MG	DA	3246	1/1	0.96	0.17	-	48,48,48,48	0
56	MG	BA	3832	1/1	0.97	0.15	-	40,40,40,40	0
56	MG	AA	1753	1/1	0.90	0.34	-	86,86,86,86	0
56	MG	DA	3422	1/1	0.99	0.10	-	47,47,47,47	0
56	MG	BA	3403	1/1	0.90	0.47	-	51,51,51,51	0
56	MG	BA	3885	1/1	0.68	0.28	-	91,91,91,91	0
56	MG	BF	303	1/1	0.94	0.11	-	41,41,41,41	0
56	MG	BA	3191	1/1	0.84	0.39	-	78,78,78,78	0
56	MG	BA	3781	1/1	0.90	0.12	-	84,84,84,84	0
56	MG	AA	1904	1/1	0.86	0.07	-	118,118,118,118	0
56	MG	DA	3304	1/1	0.71	0.44	-	67,67,67,67	0
56	MG	BA	3728	1/1	0.72	0.24	-	68,68,68,68	0
56	MG	DA	3608	1/1	0.94	0.07	-	82,82,82,82	0
56	MG	CA	1707	1/1	0.94	1.37	-	72,72,72,72	0
56	MG	BA	3570	1/1	0.96	0.12	-	60,60,60,60	0
56	MG	BA	3840	1/1	0.97	0.06	-	41,41,41,41	0
56	MG	BA	3278	1/1	0.96	0.10	-	59,59,59,59	0
56	MG	DA	3548	1/1	0.93	0.16	-	72,72,72,72	0
56	MG	DA	3077	1/1	0.92	0.24	-	74,74,74,74	0
56	MG	BA	3239	1/1	0.94	0.16	-	49,49,49,49	0
56	MG	BA	3640	1/1	0.91	0.10	-	33,33,33,33	0
56	MG	AA	1941	1/1	0.94	0.17	-	94,94,94,94	0
56	MG	BA	3417	1/1	0.95	0.43	-	44,44,44,44	0
56	MG	DA	3061	1/1	0.87	0.76	-	78,78,78,78	0
56	MG	BF	304	1/1	0.94	0.39	-	44,44,44,44	0
56	MG	BA	3111	1/1	0.92	0.26	-	66,66,66,66	0
56	MG	BA	3594	1/1	0.97	0.15	-	44,44,44,44	0
56	MG	AA	1790	1/1	0.91	0.17	-	70,70,70,70	0
56	MG	DA	3693	1/1	0.87	0.34	-	103,103,103,103	0
56	MG	DA	3159	1/1	0.90	0.26	-	66,66,66,66	0
56	MG	BA	3586	1/1	0.98	0.12	-	52,52,52,52	0
56	MG	BA	3226	1/1	0.87	0.22	-	36,36,36,36	0
56	MG	AA	1824	1/1	0.98	0.28	-	33,33,33,33	0
56	MG	AA	1670	1/1	0.88	0.29	-	88,88,88,88	0
56	MG	DA	3511	1/1	0.92	0.22	-	77,77,77,77	0
56	MG	DA	3371	1/1	0.93	0.20	-	65,65,65,65	0
56	MG	BA	3241	1/1	0.94	0.31	-	38,38,38,38	0
56	MG	DA	3645	1/1	0.95	0.06	-	93,93,93,93	0
56	MG	BA	3883	1/1	0.90	0.29	-	43,43,43,43	0
56	MG	BA	3877	1/1	0.98	0.21	-	21,21,21,21	0
56	MG	BA	3090	1/1	0.89	0.40	-	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CV	109	1/1	0.86	0.09	-	102,102,102,102	0
56	MG	DA	3143	1/1	0.95	0.22	-	50,50,50,50	0
56	MG	DA	3281	1/1	0.93	0.26	-	70,70,70,70	0
56	MG	DA	3351	1/1	0.90	0.37	-	57,57,57,57	0
56	MG	DA	3135	1/1	0.77	0.39	-	66,66,66,66	0
56	MG	BA	3565	1/1	0.99	0.13	-	34,34,34,34	0
56	MG	BA	3713	1/1	0.88	0.11	-	85,85,85,85	0
56	MG	BA	3442	1/1	0.95	0.30	-	45,45,45,45	0
56	MG	DA	3155	1/1	0.89	0.29	-	56,56,56,56	0
56	MG	DA	3227	1/1	0.83	0.32	-	79,79,79,79	0
56	MG	AA	1879	1/1	0.92	0.22	-	71,71,71,71	0
56	MG	BA	3658	1/1	0.96	0.26	-	44,44,44,44	0
56	MG	BA	3828	1/1	0.86	0.16	-	99,99,99,99	0
56	MG	DA	3258	1/1	0.44	0.43	-	91,91,91,91	0
56	MG	BA	3028	1/1	0.93	0.16	-	33,33,33,33	0
56	MG	DA	3473	1/1	0.96	0.14	-	81,81,81,81	0
56	MG	AA	1632	1/1	0.95	0.50	-	51,51,51,51	0
56	MG	DA	3367	1/1	0.92	0.11	-	75,75,75,75	0
56	MG	BA	3137	1/1	0.95	0.33	-	55,55,55,55	0
56	MG	CA	1751	1/1	0.83	0.10	-	86,86,86,86	0
56	MG	BA	3235	1/1	0.94	0.06	-	55,55,55,55	0
56	MG	BA	3800	1/1	0.71	0.14	-	111,111,111,111	0
56	MG	BB	217	1/1	0.93	0.10	-	80,80,80,80	0
56	MG	DA	3270	1/1	0.94	0.22	-	70,70,70,70	0
56	MG	BA	3128	1/1	0.95	0.35	-	60,60,60,60	0
56	MG	CA	1696	1/1	0.97	0.11	-	99,99,99,99	0
56	MG	BA	3635	1/1	0.97	0.14	-	75,75,75,75	0
56	MG	CA	1695	1/1	0.92	0.13	-	94,94,94,94	0
56	MG	BA	3771	1/1	0.92	0.17	-	79,79,79,79	0
56	MG	BA	3179	1/1	0.94	0.26	-	45,45,45,45	0
56	MG	BA	3131	1/1	0.98	0.16	-	34,34,34,34	0
56	MG	DA	3315	1/1	0.94	0.52	-	47,47,47,47	0
56	MG	DA	3257	1/1	0.92	0.73	-	51,51,51,51	0
56	MG	BA	3873	1/1	0.85	0.08	-	74,74,74,74	0
56	MG	DA	3200	1/1	0.94	0.64	-	53,53,53,53	0
56	MG	BA	3155	1/1	0.87	0.44	-	58,58,58,58	0
56	MG	AA	1613	1/1	0.89	0.55	-	68,68,68,68	0
56	MG	AA	1694	1/1	0.82	0.32	-	74,74,74,74	0
56	MG	AA	1875	1/1	0.97	0.22	-	59,59,59,59	0
56	MG	B0	101	1/1	0.96	0.35	-	43,43,43,43	0
56	MG	DA	3230	1/1	0.89	0.13	-	68,68,68,68	0
56	MG	BA	3129	1/1	0.96	0.29	-	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3816	1/1	0.96	0.14	-	85,85,85,85	0
56	MG	BA	3144	1/1	0.92	0.11	-	34,34,34,34	0
56	MG	BA	3506	1/1	0.93	0.29	-	61,61,61,61	0
56	MG	BA	3017	1/1	0.89	0.21	-	64,64,64,64	0
56	MG	DA	3588	1/1	0.55	0.11	-	109,109,109,109	0
56	MG	AA	1629	1/1	0.86	0.38	-	68,68,68,68	0
56	MG	DA	3658	1/1	0.94	0.18	-	79,79,79,79	0
56	MG	BA	3113	1/1	0.92	0.18	-	46,46,46,46	0
56	MG	BA	3057	1/1	0.89	0.23	-	30,30,30,30	0
56	MG	CA	1631	1/1	0.83	0.59	-	66,66,66,66	0
56	MG	BA	3404	1/1	0.89	0.17	-	52,52,52,52	0
56	MG	B1	102	1/1	0.95	0.15	-	45,45,45,45	0
56	MG	BA	3342	1/1	0.74	0.46	-	66,66,66,66	0
56	MG	BA	3801	1/1	0.79	0.38	-	93,93,93,93	0
56	MG	BA	3591	1/1	0.90	0.28	-	64,64,64,64	0
56	MG	AA	1680	1/1	0.86	0.12	-	65,65,65,65	0
56	MG	DA	3508	1/1	0.96	0.17	-	87,87,87,87	0
56	MG	AA	1795	1/1	0.84	0.54	-	70,70,70,70	0
56	MG	CA	1642	1/1	0.70	0.54	-	84,84,84,84	0
56	MG	AA	1649	1/1	0.94	0.15	-	60,60,60,60	0
56	MG	BA	3652	1/1	0.92	0.14	-	53,53,53,53	0
56	MG	CA	1704	1/1	0.57	0.23	-	93,93,93,93	0
56	MG	BA	3360	1/1	0.96	0.21	-	51,51,51,51	0
56	MG	BA	3841	1/1	0.89	0.28	-	91,91,91,91	0
56	MG	BA	3163	1/1	0.98	0.16	-	40,40,40,40	0
56	MG	CA	1806	1/1	0.89	0.06	-	102,102,102,102	0
56	MG	DA	3593	1/1	0.97	0.07	-	75,75,75,75	0
56	MG	DA	3058	1/1	0.72	0.43	-	83,83,83,83	0
56	MG	DA	3583	1/1	0.92	0.18	-	96,96,96,96	0
56	MG	DA	3276	1/1	0.87	0.22	-	63,63,63,63	0
56	MG	DA	3502	1/1	0.95	0.17	-	68,68,68,68	0
56	MG	DB	211	1/1	0.93	0.07	-	83,83,83,83	0
56	MG	AA	1911	1/1	0.58	0.30	-	106,106,106,106	0
56	MG	AA	1913	1/1	0.82	0.14	-	109,109,109,109	0
56	MG	DA	3687	1/1	0.96	0.08	-	64,64,64,64	0
56	MG	CA	1769	1/1	0.95	0.20	-	93,93,93,93	0
56	MG	BA	3864	1/1	0.88	0.10	-	79,79,79,79	0
56	MG	AA	1762	1/1	0.70	0.31	-	74,74,74,74	0
56	MG	BB	227	1/1	0.76	0.06	-	81,81,81,81	0
56	MG	AA	1622	1/1	0.94	0.70	-	56,56,56,56	0
56	MG	BA	3834	1/1	0.96	0.19	-	27,27,27,27	0
56	MG	AA	1720	1/1	0.73	0.42	-	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3304	1/1	0.95	0.22	-	45,45,45,45	0
56	MG	DA	3465	1/1	0.94	0.14	-	104,104,104,104	0
56	MG	CA	1712	1/1	0.89	0.25	-	83,83,83,83	0
56	MG	BB	230	1/1	0.96	0.18	-	56,56,56,56	0
56	MG	DA	3306	1/1	0.94	0.07	-	106,106,106,106	0
56	MG	BA	3406	1/1	0.77	0.21	-	64,64,64,64	0
56	MG	DA	3340	1/1	0.96	0.46	-	55,55,55,55	0
56	MG	AA	1787	1/1	0.85	0.27	-	66,66,66,66	0
56	MG	BA	3368	1/1	0.89	0.24	-	63,63,63,63	0
56	MG	BA	3122	1/1	0.91	0.31	-	56,56,56,56	0
56	MG	DB	205	1/1	0.80	0.22	-	79,79,79,79	0
56	MG	BA	3632	1/1	0.94	0.12	-	59,59,59,59	0
56	MG	AA	1785	1/1	0.81	0.31	-	68,68,68,68	0
56	MG	BA	3461	1/1	0.94	0.16	-	58,58,58,58	0
56	MG	CA	1765	1/1	0.92	0.34	-	61,61,61,61	0
56	MG	BA	3228	1/1	0.92	0.23	-	59,59,59,59	0
56	MG	DA	3436	1/1	0.98	0.29	-	50,50,50,50	0
56	MG	DA	3231	1/1	0.93	0.25	-	74,74,74,74	0
56	MG	BQ	203	1/1	0.98	0.24	-	62,62,62,62	0
56	MG	CA	1791	1/1	0.87	0.24	-	85,85,85,85	0
56	MG	DA	3184	1/1	0.97	0.43	-	57,57,57,57	0
56	MG	DA	3675	1/1	0.96	0.11	-	75,75,75,75	0
56	MG	AA	1917	1/1	0.84	0.17	-	71,71,71,71	0
56	MG	BA	3434	1/1	0.99	0.48	-	22,22,22,22	0
56	MG	AA	1755	1/1	0.90	0.30	-	70,70,70,70	0
56	MG	BA	3433	1/1	0.91	0.27	-	30,30,30,30	0
56	MG	BA	3615	1/1	0.97	0.23	-	68,68,68,68	0
56	MG	DA	3568	1/1	0.95	0.17	-	82,82,82,82	0
56	MG	BA	3316	1/1	0.94	0.21	-	48,48,48,48	0
56	MG	DA	3527	1/1	0.86	0.27	-	81,81,81,81	0
56	MG	BA	3844	1/1	0.85	0.17	-	99,99,99,99	0
56	MG	AA	1679	1/1	0.64	0.28	-	84,84,84,84	0
56	MG	CV	107	1/1	0.81	0.30	-	70,70,70,70	0
56	MG	DA	3498	1/1	0.98	0.07	-	51,51,51,51	0
56	MG	AA	1804	1/1	0.94	0.19	-	115,115,115,115	0
56	MG	BA	3067	1/1	0.96	0.11	-	40,40,40,40	0
56	MG	AA	1885	1/1	0.91	0.24	-	90,90,90,90	0
56	MG	BA	3080	1/1	0.95	0.19	-	44,44,44,44	0
56	MG	AA	1808	1/1	0.89	0.38	-	75,75,75,75	0
56	MG	CA	1626	1/1	0.93	0.31	-	50,50,50,50	0
56	MG	CA	1804	1/1	0.87	0.23	-	103,103,103,103	0
56	MG	BA	3704	1/1	0.95	0.15	-	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3112	1/1	0.92	0.31	-	61,61,61,61	0
56	MG	CA	1717	1/1	0.86	0.50	-	77,77,77,77	0
56	MG	AA	1690	1/1	0.86	0.35	-	65,65,65,65	0
56	MG	DA	3368	1/1	0.87	0.13	-	80,80,80,80	0
56	MG	BA	3491	1/1	0.84	0.32	-	41,41,41,41	0
56	MG	BA	3182	1/1	0.96	0.41	-	25,25,25,25	0
56	MG	AA	1763	1/1	0.91	0.24	-	54,54,54,54	0
56	MG	DA	3655	1/1	0.90	0.23	-	75,75,75,75	0
56	MG	AA	1843	1/1	0.83	0.12	-	73,73,73,73	0
56	MG	DA	3637	1/1	0.95	0.09	-	57,57,57,57	0
56	MG	DA	3160	1/1	0.84	0.31	-	69,69,69,69	0
56	MG	AA	1859	1/1	0.96	0.11	-	91,91,91,91	0
56	MG	AA	1834	1/1	0.81	0.39	-	76,76,76,76	0
56	MG	BA	3173	1/1	0.98	0.18	-	31,31,31,31	0
56	MG	BA	3216	1/1	0.94	0.14	-	28,28,28,28	0
56	MG	DA	3390	1/1	0.94	0.14	-	55,55,55,55	0
56	MG	BA	3026	1/1	0.91	0.31	-	92,92,92,92	0
56	MG	BB	204	1/1	0.94	0.36	-	57,57,57,57	0
56	MG	BA	3426	1/1	0.94	0.14	-	46,46,46,46	0
56	MG	BA	3229	1/1	0.93	0.17	-	41,41,41,41	0
56	MG	DA	3199	1/1	0.76	1.06	-	81,81,81,81	0
56	MG	AA	1641	1/1	0.84	0.49	-	44,44,44,44	0
56	MG	CA	1686	1/1	0.96	0.14	-	72,72,72,72	0
56	MG	DO	203	1/1	0.98	0.17	-	79,79,79,79	0
56	MG	BA	3324	1/1	0.90	0.59	-	62,62,62,62	0
56	MG	CA	1673	1/1	0.87	0.27	-	54,54,54,54	0
56	MG	DA	3470	1/1	0.97	0.27	-	73,73,73,73	0
56	MG	CA	1738	1/1	0.91	0.19	-	98,98,98,98	0
56	MG	BA	3365	1/1	0.91	0.20	-	69,69,69,69	0
56	MG	BA	3270	1/1	0.97	0.40	-	53,53,53,53	0
56	MG	DA	3529	1/1	0.92	0.13	-	82,82,82,82	0
56	MG	AA	1923	1/1	0.75	0.15	-	115,115,115,115	0
56	MG	CA	1650	1/1	0.91	0.38	-	61,61,61,61	0
56	MG	BA	3240	1/1	0.91	0.20	-	57,57,57,57	0
56	MG	DA	3002	1/1	0.79	0.31	-	69,69,69,69	0
56	MG	DA	3661	1/1	0.97	0.17	-	61,61,61,61	0
56	MG	BQ	202	1/1	0.95	0.18	-	46,46,46,46	0
56	MG	CA	1724	1/1	0.93	0.29	-	88,88,88,88	0
56	MG	BA	3850	1/1	0.93	0.27	-	82,82,82,82	0
56	MG	BA	3284	1/1	0.90	0.22	-	41,41,41,41	0
56	MG	DA	3405	1/1	0.95	0.24	-	43,43,43,43	0
56	MG	AA	1713	1/1	0.96	0.31	-	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3789	1/1	0.97	0.12	-	41,41,41,41	0
56	MG	BA	3337	1/1	0.92	0.20	-	51,51,51,51	0
56	MG	DA	3482	1/1	0.85	0.20	-	63,63,63,63	0
56	MG	AA	1686	1/1	0.68	0.43	-	112,112,112,112	0
56	MG	BA	3563	1/1	0.96	0.12	-	45,45,45,45	0
56	MG	DA	3377	1/1	0.72	0.44	-	89,89,89,89	0
56	MG	CA	1783	1/1	0.83	0.06	-	78,78,78,78	0
56	MG	DA	3086	1/1	0.94	0.33	-	32,32,32,32	0
56	MG	DA	3288	1/1	0.76	0.31	-	83,83,83,83	0
56	MG	BA	3620	1/1	0.93	0.06	-	49,49,49,49	0
56	MG	BA	3110	1/1	0.93	0.29	-	51,51,51,51	0
56	MG	BB	225	1/1	0.98	0.14	-	56,56,56,56	0
56	MG	DA	3547	1/1	0.96	0.10	-	83,83,83,83	0
56	MG	BA	3637	1/1	0.95	0.09	-	62,62,62,62	0
56	MG	AF	201	1/1	0.80	0.36	-	79,79,79,79	0
56	MG	DA	3454	1/1	0.95	0.14	-	91,91,91,91	0
56	MG	DA	3375	1/1	0.71	0.14	-	84,84,84,84	0
56	MG	BA	3839	1/1	0.97	0.12	-	33,33,33,33	0
56	MG	CA	1616	1/1	0.97	0.67	-	54,54,54,54	0
56	MG	BA	3004	1/1	0.89	0.25	-	57,57,57,57	0
56	MG	DA	3299	1/1	0.74	0.69	-	57,57,57,57	0
56	MG	DA	3524	1/1	0.90	0.19	-	99,99,99,99	0
56	MG	BA	3256	1/1	0.49	0.21	-	77,77,77,77	0
56	MG	BA	3820	1/1	0.84	0.41	-	93,93,93,93	0
56	MG	BA	3531	1/1	0.96	0.04	-	59,59,59,59	0
56	MG	D0	102	1/1	0.56	0.37	-	99,99,99,99	0
56	MG	DA	3641	1/1	0.98	0.15	-	50,50,50,50	0
56	MG	BA	3788	1/1	0.94	0.15	-	48,48,48,48	0
56	MG	BA	3078	1/1	0.89	0.53	-	49,49,49,49	0
56	MG	AA	1721	1/1	0.87	0.27	-	84,84,84,84	0
56	MG	DA	3630	1/1	0.97	0.21	-	47,47,47,47	0
56	MG	BA	3393	1/1	0.97	0.14	-	28,28,28,28	0
56	MG	AV	116	1/1	0.97	0.15	-	84,84,84,84	0
56	MG	CA	1808	1/1	0.59	0.29	-	102,102,102,102	0
56	MG	DA	3262	1/1	0.90	0.66	-	67,67,67,67	0
56	MG	AV	111	1/1	0.94	0.26	-	85,85,85,85	0
56	MG	DA	3691	1/1	0.72	0.10	-	91,91,91,91	0
56	MG	DA	3410	1/1	0.98	0.24	-	55,55,55,55	0
56	MG	BA	3352	1/1	0.89	0.31	-	68,68,68,68	0
56	MG	DA	3266	1/1	0.91	0.22	-	62,62,62,62	0
56	MG	DO	201	1/1	0.85	0.30	-	80,80,80,80	0
56	MG	D0	103	1/1	0.93	0.17	-	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3161	1/1	0.89	0.31	-	49,49,49,49	0
56	MG	DA	3642	1/1	0.97	0.10	-	71,71,71,71	0
56	MG	DB	208	1/1	0.87	0.12	-	98,98,98,98	0
56	MG	BA	3752	1/1	0.98	0.23	-	28,28,28,28	0
56	MG	BA	3265	1/1	0.87	0.24	-	67,67,67,67	0
56	MG	CA	1801	1/1	0.89	0.13	-	83,83,83,83	0
56	MG	BA	3148	1/1	0.91	0.21	-	50,50,50,50	0
56	MG	BA	3448	1/1	0.77	0.36	-	60,60,60,60	0
56	MG	DA	3310	1/1	0.84	0.90	-	72,72,72,72	0
56	MG	DA	3060	1/1	0.93	0.19	-	90,90,90,90	0
56	MG	BA	3501	1/1	0.81	0.36	-	80,80,80,80	0
56	MG	BA	3715	1/1	0.97	0.14	-	21,21,21,21	0
56	MG	DA	3349	1/1	0.88	0.44	-	72,72,72,72	0
56	MG	BA	3520	1/1	0.96	0.36	-	38,38,38,38	0
56	MG	BA	3339	1/1	0.78	0.36	-	70,70,70,70	0
56	MG	BA	3619	1/1	0.96	0.06	-	86,86,86,86	0
56	MG	DA	3157	1/1	0.86	0.32	-	82,82,82,82	0
56	MG	BA	3321	1/1	0.91	0.33	-	52,52,52,52	0
56	MG	BA	3414	1/1	0.93	0.15	-	72,72,72,72	0
56	MG	DA	3426	1/1	0.92	0.16	-	42,42,42,42	0
56	MG	BA	3033	1/1	0.92	0.34	-	55,55,55,55	0
56	MG	BA	3855	1/1	0.76	0.48	-	103,103,103,103	0
56	MG	BA	3290	1/1	0.86	0.26	-	63,63,63,63	0
56	MG	DA	3318	1/1	0.85	0.19	-	83,83,83,83	0
56	MG	BA	3395	1/1	0.81	0.17	-	100,100,100,100	0
56	MG	DA	3081	1/1	0.76	0.41	-	65,65,65,65	0
56	MG	AA	1714	1/1	0.90	0.23	-	74,74,74,74	0
56	MG	AV	118	1/1	0.87	0.09	-	83,83,83,83	0
56	MG	CA	1757	1/1	0.77	0.29	-	94,94,94,94	0
56	MG	CA	1718	1/1	0.92	0.37	-	88,88,88,88	0
56	MG	DA	3128	1/1	0.83	0.48	-	59,59,59,59	0
56	MG	BB	206	1/1	0.81	0.17	-	61,61,61,61	0
56	MG	DA	3007	1/1	0.83	0.14	-	82,82,82,82	0
56	MG	BA	3874	1/1	0.82	0.30	-	90,90,90,90	0
56	MG	BA	3896	1/1	0.89	0.16	-	72,72,72,72	0
56	MG	BA	3372	1/1	0.94	0.16	-	77,77,77,77	0
56	MG	BA	3823	1/1	0.90	0.17	-	78,78,78,78	0
56	MG	BA	3863	1/1	0.95	0.09	-	72,72,72,72	0
56	MG	BA	3299	1/1	0.94	0.24	-	58,58,58,58	0
56	MG	BA	3180	1/1	0.95	0.36	-	41,41,41,41	0
56	MG	CA	1723	1/1	0.92	0.08	-	96,96,96,96	0
56	MG	BA	3359	1/1	0.75	0.47	-	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1645	1/1	0.83	0.40	-	74,74,74,74	0
56	MG	BA	3331	1/1	0.86	0.26	-	66,66,66,66	0
56	MG	BA	3005	1/1	0.95	0.13	-	59,59,59,59	0
56	MG	CA	1603	1/1	0.83	0.68	-	72,72,72,72	0
56	MG	BA	3189	1/1	0.91	0.28	-	49,49,49,49	0
56	MG	CA	1708	1/1	0.76	1.02	-	91,91,91,91	0
56	MG	AA	1717	1/1	0.87	0.18	-	76,76,76,76	0
56	MG	CA	1796	1/1	0.56	0.16	-	102,102,102,102	0
56	MG	DA	3613	1/1	0.97	0.11	-	60,60,60,60	0
56	MG	BA	3436	1/1	0.94	0.08	-	70,70,70,70	0
56	MG	DA	3490	1/1	0.98	0.25	-	45,45,45,45	0
56	MG	DA	3302	1/1	0.81	0.32	-	76,76,76,76	0
56	MG	BA	3476	1/1	0.96	0.12	-	50,50,50,50	0
56	MG	BA	3603	1/1	0.96	0.12	-	32,32,32,32	0
56	MG	BA	3638	1/1	0.94	0.25	-	54,54,54,54	0
56	MG	BA	3107	1/1	0.96	0.14	-	44,44,44,44	0
56	MG	DA	3336	1/1	0.92	0.41	-	71,71,71,71	0
56	MG	DA	3078	1/1	0.90	0.42	-	75,75,75,75	0
56	MG	DA	3545	1/1	0.75	0.11	-	83,83,83,83	0
56	MG	BT	201	1/1	0.90	0.14	-	53,53,53,53	0
56	MG	BA	3847	1/1	0.93	0.30	-	82,82,82,82	0
56	MG	DA	3102	1/1	0.87	0.24	-	60,60,60,60	0
56	MG	B0	105	1/1	0.98	0.15	-	76,76,76,76	0
56	MG	DA	3526	1/1	0.94	0.09	-	64,64,64,64	0
56	MG	DA	3469	1/1	0.86	0.09	-	84,84,84,84	0
56	MG	DB	209	1/1	0.72	0.40	-	86,86,86,86	0
56	MG	AA	1846	1/1	0.84	0.34	-	90,90,90,90	0
56	MG	BA	3639	1/1	0.95	0.09	-	63,63,63,63	0
56	MG	AA	1664	1/1	0.95	0.13	-	51,51,51,51	0
56	MG	BA	3112	1/1	0.87	0.24	-	56,56,56,56	0
56	MG	CA	1636	1/1	0.90	0.45	-	50,50,50,50	0
56	MG	CA	1785	1/1	0.88	0.10	-	87,87,87,87	0
56	MG	DA	3660	1/1	0.95	0.11	-	78,78,78,78	0
56	MG	DA	3678	1/1	0.59	0.27	-	89,89,89,89	0
56	MG	BA	3807	1/1	0.92	0.17	-	64,64,64,64	0
56	MG	AA	1924	1/1	0.98	0.10	-	80,80,80,80	0
56	MG	BA	3799	1/1	0.72	0.10	-	72,72,72,72	0
56	MG	BA	3812	1/1	0.82	0.10	-	87,87,87,87	0
56	MG	AA	1868	1/1	0.94	0.28	-	62,62,62,62	0
56	MG	DA	3667	1/1	0.88	0.13	-	74,74,74,74	0
56	MG	BA	3465	1/1	0.93	0.28	-	40,40,40,40	0
56	MG	BA	3114	1/1	0.95	0.40	-	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1934	1/1	0.97	0.08	-	48,48,48,48	0
56	MG	DA	3541	1/1	0.88	0.11	-	106,106,106,106	0
56	MG	DA	3694	1/1	0.72	0.13	-	95,95,95,95	0
56	MG	DB	214	1/1	0.84	0.29	-	83,83,83,83	0
56	MG	DA	3443	1/1	0.85	0.13	-	70,70,70,70	0
56	MG	DA	3048	1/1	0.97	0.13	-	74,74,74,74	0
56	MG	AA	1707	1/1	0.89	0.18	-	64,64,64,64	0
56	MG	AA	1634	1/1	0.95	0.34	-	47,47,47,47	0
56	MG	CA	1640	1/1	0.85	0.23	-	72,72,72,72	0
56	MG	AA	1775	1/1	0.83	0.11	-	77,77,77,77	0
56	MG	BA	3236	1/1	0.93	0.15	-	50,50,50,50	0
56	MG	BA	3351	1/1	0.93	0.12	-	51,51,51,51	0
56	MG	BA	3458	1/1	0.94	0.31	-	44,44,44,44	0
56	MG	AA	1749	1/1	0.71	0.75	-	69,69,69,69	0
56	MG	BE	302	1/1	0.98	0.54	-	51,51,51,51	0
56	MG	AA	1733	1/1	0.78	0.15	-	94,94,94,94	0
56	MG	BA	3610	1/1	0.99	0.10	-	41,41,41,41	0
56	MG	AI	202	1/1	0.81	0.40	-	90,90,90,90	0
56	MG	BA	3519	1/1	0.97	0.40	-	53,53,53,53	0
56	MG	BA	3651	1/1	0.90	0.16	-	49,49,49,49	0
56	MG	BA	3370	1/1	0.90	0.15	-	64,64,64,64	0
56	MG	CA	1681	1/1	0.89	0.28	-	70,70,70,70	0
56	MG	CA	1733	1/1	0.94	0.08	-	90,90,90,90	0
56	MG	DA	3260	1/1	0.87	0.22	-	71,71,71,71	0
56	MG	AA	1756	1/1	0.96	0.24	-	90,90,90,90	0
56	MG	B0	102	1/1	0.91	0.17	-	50,50,50,50	0
56	MG	AA	1850	1/1	0.95	0.47	-	85,85,85,85	0
56	MG	DA	3376	1/1	0.79	0.30	-	69,69,69,69	0
56	MG	AA	1877	1/1	0.95	0.08	-	70,70,70,70	0
56	MG	BA	3779	1/1	0.92	0.39	-	80,80,80,80	0
56	MG	AA	1931	1/1	0.81	0.25	-	103,103,103,103	0
56	MG	DA	3228	1/1	0.86	0.33	-	90,90,90,90	0
56	MG	AA	1831	1/1	0.92	0.17	-	63,63,63,63	0
56	MG	BA	3325	1/1	0.81	0.23	-	83,83,83,83	0
56	MG	AV	107	1/1	0.90	0.33	-	87,87,87,87	0
56	MG	BA	3027	1/1	0.97	0.19	-	44,44,44,44	0
56	MG	BB	229	1/1	0.98	0.04	-	67,67,67,67	0
56	MG	BA	3605	1/1	0.89	0.19	-	75,75,75,75	0
56	MG	AA	1656	1/1	0.94	0.08	-	72,72,72,72	0
56	MG	BA	3599	1/1	0.94	0.10	-	52,52,52,52	0
56	MG	BA	3769	1/1	0.96	0.17	-	55,55,55,55	0
56	MG	DA	3207	1/1	0.87	0.15	-	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3521	1/1	0.91	0.42	-	68,68,68,68	0
56	MG	DA	3587	1/1	0.95	0.18	-	86,86,86,86	0
56	MG	DA	3130	1/1	0.98	0.10	-	52,52,52,52	0
56	MG	CA	1731	1/1	0.92	0.43	-	84,84,84,84	0
56	MG	DA	3517	1/1	0.99	0.17	-	64,64,64,64	0
56	MG	BA	3826	1/1	0.90	0.47	-	92,92,92,92	0
56	MG	BA	3573	1/1	0.97	0.07	-	54,54,54,54	0
56	MG	CA	1792	1/1	0.92	0.12	-	82,82,82,82	0
56	MG	BA	3523	1/1	0.69	0.42	-	76,76,76,76	0
56	MG	DA	3589	1/1	0.97	0.07	-	81,81,81,81	0
56	MG	BA	3478	1/1	0.87	0.25	-	67,67,67,67	0
56	MG	BA	3609	1/1	0.96	0.07	-	53,53,53,53	0
56	MG	DA	3211	1/1	0.81	0.34	-	83,83,83,83	0
56	MG	BA	3710	1/1	0.98	0.17	-	58,58,58,58	0
56	MG	DA	3026	1/1	0.96	0.29	-	64,64,64,64	0
56	MG	BA	3438	1/1	0.87	0.37	-	62,62,62,62	0
56	MG	CA	1663	1/1	0.91	0.47	-	63,63,63,63	0
56	MG	BA	3445	1/1	0.96	0.14	-	68,68,68,68	0
56	MG	AA	1731	1/1	0.83	0.17	-	70,70,70,70	0
56	MG	CA	1700	1/1	0.78	0.74	-	90,90,90,90	0
56	MG	BA	3054	1/1	0.82	0.25	-	58,58,58,58	0
56	MG	CA	1643	1/1	0.97	0.40	-	53,53,53,53	0
56	MG	BA	3212	1/1	0.96	0.15	-	35,35,35,35	0
56	MG	BA	3745	1/1	0.94	0.13	-	75,75,75,75	0
56	MG	BA	3813	1/1	0.89	0.08	-	66,66,66,66	0
56	MG	CA	1641	1/1	0.96	0.24	-	80,80,80,80	0
56	MG	BA	3629	1/1	0.98	0.09	-	64,64,64,64	0
56	MG	DA	3052	1/1	0.65	1.02	-	79,79,79,79	0
56	MG	AA	1605	1/1	0.92	0.28	-	81,81,81,81	0
56	MG	BA	3230	1/1	0.88	0.09	-	57,57,57,57	0
56	MG	BA	3429	1/1	0.95	0.24	-	54,54,54,54	0
56	MG	BA	3829	1/1	0.95	0.38	-	82,82,82,82	0
56	MG	BA	3862	1/1	0.98	0.11	-	59,59,59,59	0
56	MG	BA	3508	1/1	0.94	0.25	-	41,41,41,41	0
56	MG	BA	3197	1/1	0.91	0.23	-	41,41,41,41	0
56	MG	DA	3621	1/1	0.98	0.07	-	73,73,73,73	0
56	MG	DA	3183	1/1	0.94	0.17	-	106,106,106,106	0
56	MG	DA	3544	1/1	0.87	0.11	-	79,79,79,79	0
56	MG	DA	3628	1/1	0.96	0.11	-	80,80,80,80	0
56	MG	DA	3137	1/1	0.92	0.21	-	39,39,39,39	0
56	MG	DA	3345	1/1	0.92	0.10	-	67,67,67,67	0
56	MG	DA	3129	1/1	0.87	0.17	-	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3303	1/1	0.93	0.61	-	51,51,51,51	0
56	MG	DA	3396	1/1	0.97	0.13	-	37,37,37,37	0
56	MG	AA	1841	1/1	0.98	0.11	-	75,75,75,75	0
56	MG	AA	1912	1/1	0.87	0.14	-	106,106,106,106	0
56	MG	DA	3578	1/1	0.94	0.16	-	50,50,50,50	0
56	MG	CA	1639	1/1	0.87	0.77	-	96,96,96,96	0
56	MG	AA	1823	1/1	0.67	0.99	-	77,77,77,77	0
56	MG	CA	1684	1/1	0.86	0.16	-	70,70,70,70	0
56	MG	DA	3256	1/1	0.83	0.36	-	73,73,73,73	0
56	MG	BA	3423	1/1	0.87	0.18	-	85,85,85,85	0
56	MG	AA	1616	1/1	0.95	0.13	-	65,65,65,65	0
56	MG	AA	1803	1/1	0.76	0.91	-	92,92,92,92	0
56	MG	BA	3298	1/1	0.88	0.24	-	50,50,50,50	0
56	MG	DA	3108	1/1	0.95	0.28	-	45,45,45,45	0
56	MG	BA	3251	1/1	0.94	0.47	-	51,51,51,51	0
56	MG	BA	3760	1/1	0.93	0.08	-	68,68,68,68	0
56	MG	AA	1801	1/1	0.84	0.38	-	65,65,65,65	0
56	MG	DA	3535	1/1	0.90	0.36	-	96,96,96,96	0
56	MG	CA	1613	1/1	0.85	0.42	-	75,75,75,75	0
56	MG	AA	1857	1/1	0.95	0.22	-	62,62,62,62	0
56	MG	BA	3560	1/1	0.97	0.18	-	39,39,39,39	0
56	MG	BA	3473	1/1	0.99	0.33	-	22,22,22,22	0
56	MG	BA	3282	1/1	0.95	0.17	-	59,59,59,59	0
56	MG	BA	3389	1/1	0.89	0.60	-	38,38,38,38	0
56	MG	AA	1894	1/1	0.85	0.40	-	83,83,83,83	0
56	MG	AA	1747	1/1	0.93	0.31	-	93,93,93,93	0
56	MG	BA	3871	1/1	0.84	0.12	-	46,46,46,46	0
56	MG	BA	3334	1/1	0.86	0.42	-	51,51,51,51	0
56	MG	BA	3207	1/1	0.92	0.30	-	41,41,41,41	0
56	MG	BA	3232	1/1	0.95	0.16	-	40,40,40,40	0
56	MG	BA	3294	1/1	0.80	0.13	-	67,67,67,67	0
56	MG	BA	3679	1/1	0.97	0.05	-	34,34,34,34	0
56	MG	AA	1945	1/1	0.90	0.08	-	107,107,107,107	0
56	MG	BA	3095	1/1	0.88	0.16	-	48,48,48,48	0
56	MG	CA	1800	1/1	0.92	0.05	-	105,105,105,105	0
56	MG	AA	1744	1/1	0.91	0.23	-	68,68,68,68	0
56	MG	DA	3320	1/1	0.87	0.24	-	56,56,56,56	0
56	MG	DA	3243	1/1	0.95	0.07	-	78,78,78,78	0
56	MG	DA	3219	1/1	0.92	0.17	-	67,67,67,67	0
56	MG	DA	3167	1/1	0.97	0.36	-	67,67,67,67	0
56	MG	BA	3341	1/1	0.85	0.25	-	53,53,53,53	0
56	MG	DB	213	1/1	0.79	0.35	-	115,115,115,115	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BB	220	1/1	0.92	0.11	-	44,44,44,44	0
56	MG	AA	1758	1/1	0.91	0.26	-	72,72,72,72	0
56	MG	BA	3533	1/1	0.97	0.11	-	61,61,61,61	0
56	MG	B0	104	1/1	0.99	0.19	-	58,58,58,58	0
56	MG	AA	1839	1/1	0.98	0.06	-	69,69,69,69	0
56	MG	CA	1674	1/1	0.81	0.35	-	79,79,79,79	0
56	MG	AA	1942	1/1	0.92	0.26	-	93,93,93,93	0
56	MG	DA	3091	1/1	0.96	0.11	-	47,47,47,47	0
56	MG	CA	1750	1/1	0.92	0.18	-	56,56,56,56	0
56	MG	AA	1623	1/1	0.95	0.19	-	59,59,59,59	0
56	MG	BA	3010	1/1	0.92	0.59	-	56,56,56,56	0
56	MG	BA	3574	1/1	0.97	0.18	-	36,36,36,36	0
56	MG	DA	3110	1/1	0.91	0.31	-	60,60,60,60	0
56	MG	AA	1910	1/1	0.95	0.18	-	87,87,87,87	0
56	MG	DA	3220	1/1	0.94	0.17	-	83,83,83,83	0
56	MG	BA	3697	1/1	0.95	0.15	-	51,51,51,51	0
56	MG	CA	1781	1/1	0.96	0.18	-	103,103,103,103	0
56	MG	BA	3706	1/1	0.95	0.21	-	29,29,29,29	0
56	MG	DA	3328	1/1	0.96	0.15	-	59,59,59,59	0
56	MG	BA	3633	1/1	0.96	0.11	-	52,52,52,52	0
56	MG	DQ	201	1/1	0.87	0.47	-	43,43,43,43	0
56	MG	BA	3431	1/1	0.77	0.28	-	75,75,75,75	0
56	MG	BA	3717	1/1	0.95	0.17	-	21,21,21,21	0
56	MG	DA	3072	1/1	0.68	0.38	-	65,65,65,65	0
56	MG	CA	1680	1/1	0.76	0.33	-	70,70,70,70	0
56	MG	BA	3086	1/1	0.93	0.34	-	51,51,51,51	0
56	MG	DA	3065	1/1	0.92	1.02	-	59,59,59,59	0
56	MG	CA	1646	1/1	0.89	0.10	-	73,73,73,73	0
56	MG	AA	1676	1/1	0.94	0.58	-	72,72,72,72	0
56	MG	DA	3154	1/1	0.90	0.34	-	65,65,65,65	0
56	MG	BA	3796	1/1	0.92	0.38	-	83,83,83,83	0
56	MG	DA	3543	1/1	0.99	0.05	-	74,74,74,74	0
56	MG	DA	3358	1/1	0.93	0.22	-	60,60,60,60	0
56	MG	BA	3094	1/1	0.92	0.21	-	45,45,45,45	0
56	MG	BA	3657	1/1	0.95	0.26	-	51,51,51,51	0
56	MG	CA	1669	1/1	0.96	0.83	-	78,78,78,78	0
56	MG	CA	1775	1/1	0.71	0.14	-	99,99,99,99	0
56	MG	BA	3335	1/1	0.97	0.32	-	47,47,47,47	0
56	MG	DA	3232	1/1	0.70	0.39	-	91,91,91,91	0
56	MG	CA	1799	1/1	0.90	0.13	-	94,94,94,94	0
56	MG	DA	3571	1/1	0.94	0.11	-	57,57,57,57	0
56	MG	BA	3589	1/1	0.83	0.13	-	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3878	1/1	0.98	0.12	-	81,81,81,81	0
56	MG	BA	3031	1/1	0.95	0.22	-	29,29,29,29	0
56	MG	BA	3146	1/1	0.97	0.30	-	49,49,49,49	0
56	MG	AA	1643	1/1	0.87	0.56	-	59,59,59,59	0
56	MG	DA	3179	1/1	0.91	0.25	-	67,67,67,67	0
56	MG	BA	3811	1/1	0.94	0.12	-	85,85,85,85	0
56	MG	AA	1723	1/1	0.80	0.23	-	102,102,102,102	0
56	MG	DA	3271	1/1	0.70	0.45	-	68,68,68,68	0
56	MG	AA	1657	1/1	0.85	0.46	-	67,67,67,67	0
56	MG	BA	3509	1/1	0.80	0.50	-	54,54,54,54	0
56	MG	DA	3004	1/1	0.86	0.42	-	75,75,75,75	0
56	MG	DA	3186	1/1	0.89	0.32	-	76,76,76,76	0
56	MG	AA	1928	1/1	0.90	0.10	-	71,71,71,71	0
56	MG	BA	3139	1/1	0.76	0.42	-	56,56,56,56	0
56	MG	BA	3072	1/1	0.97	0.64	-	48,48,48,48	0
56	MG	BA	3172	1/1	0.96	0.49	-	44,44,44,44	0
56	MG	BA	3178	1/1	0.95	0.34	-	43,43,43,43	0
56	MG	CA	1689	1/1	0.88	0.85	-	84,84,84,84	0
56	MG	DA	3435	1/1	0.88	0.09	-	70,70,70,70	0
56	MG	DA	3674	1/1	0.67	0.24	-	105,105,105,105	0
56	MG	BA	3587	1/1	0.98	0.14	-	48,48,48,48	0
56	MG	BA	3532	1/1	0.95	0.23	-	34,34,34,34	0
56	MG	DA	3322	1/1	0.93	0.33	-	52,52,52,52	0
56	MG	DA	3296	1/1	0.69	0.31	-	80,80,80,80	0
56	MG	DA	3695	1/1	0.80	0.14	-	107,107,107,107	0
56	MG	DA	3564	1/1	0.91	0.12	-	88,88,88,88	0
56	MG	DA	3445	1/1	0.97	0.14	-	43,43,43,43	0
56	MG	CA	1665	1/1	0.82	0.64	-	64,64,64,64	0
56	MG	CA	1622	1/1	0.80	0.76	-	80,80,80,80	0
56	MG	DA	3348	1/1	0.85	0.31	-	77,77,77,77	0
56	MG	AA	1646	1/1	0.85	0.45	-	64,64,64,64	0
56	MG	CA	1635	1/1	0.86	0.44	-	72,72,72,72	0
56	MG	BA	3774	1/1	0.94	0.28	-	72,72,72,72	0
56	MG	BA	3880	1/1	0.84	0.09	-	84,84,84,84	0
56	MG	CV	110	1/1	0.89	0.10	-	100,100,100,100	0
56	MG	BA	3756	1/1	0.92	0.12	-	56,56,56,56	0
56	MG	AA	1625	1/1	0.90	0.17	-	69,69,69,69	0
56	MG	BA	3656	1/1	0.88	0.17	-	63,63,63,63	0
56	MG	AA	1816	1/1	0.94	0.19	-	107,107,107,107	0
56	MG	BA	3273	1/1	0.93	0.29	-	63,63,63,63	0
56	MG	DA	3412	1/1	0.96	0.12	-	52,52,52,52	0
56	MG	CA	1810	1/1	0.82	0.08	-	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1697	1/1	0.84	0.30	-	75,75,75,75	0
56	MG	BA	3703	1/1	0.95	0.08	-	65,65,65,65	0
56	MG	AA	1665	1/1	0.78	0.29	-	73,73,73,73	0
56	MG	AT	201	1/1	0.91	0.26	-	111,111,111,111	0
56	MG	CA	1784	1/1	0.92	0.15	-	96,96,96,96	0
56	MG	BA	3884	1/1	0.93	0.08	-	66,66,66,66	0
56	MG	AA	1888	1/1	0.87	0.20	-	97,97,97,97	0
56	MG	BA	3257	1/1	0.92	0.26	-	48,48,48,48	0
56	MG	AA	1906	1/1	0.91	0.22	-	89,89,89,89	0
56	MG	AA	1725	1/1	0.94	0.19	-	65,65,65,65	0
56	MG	BA	3362	1/1	0.89	0.44	-	51,51,51,51	0
56	MG	BA	3527	1/1	0.93	0.09	-	90,90,90,90	0
56	MG	BA	3082	1/1	0.80	0.27	-	45,45,45,45	0
56	MG	CA	1802	1/1	0.57	0.10	-	115,115,115,115	0
56	MG	DA	3164	1/1	0.91	0.41	-	87,87,87,87	0
56	MG	BA	3157	1/1	0.91	0.43	-	42,42,42,42	0
56	MG	AA	1915	1/1	0.59	0.17	-	121,121,121,121	0
56	MG	BA	3486	1/1	0.93	0.33	-	60,60,60,60	0
56	MG	BA	3515	1/1	0.92	0.46	-	49,49,49,49	0
56	MG	BA	3398	1/1	0.93	0.22	-	62,62,62,62	0
56	MG	DA	3342	1/1	0.84	0.31	-	70,70,70,70	0
56	MG	DA	3185	1/1	0.85	0.29	-	58,58,58,58	0
56	MG	AA	1621	1/1	0.92	0.15	-	54,54,54,54	0
56	MG	DA	3293	1/1	0.36	0.16	-	94,94,94,94	0
56	MG	BA	3418	1/1	0.96	0.25	-	59,59,59,59	0
56	MG	AV	106	1/1	0.80	0.24	-	68,68,68,68	0
56	MG	BA	3595	1/1	0.95	0.12	-	45,45,45,45	0
56	MG	DA	3309	1/1	0.73	0.41	-	88,88,88,88	0
56	MG	AA	1766	1/1	0.91	0.17	-	53,53,53,53	0
56	MG	BA	3693	1/1	0.97	0.10	-	38,38,38,38	0
56	MG	BA	3009	1/1	0.89	0.18	-	83,83,83,83	0
56	MG	DA	3085	1/1	0.88	0.31	-	64,64,64,64	0
56	MG	CA	1766	1/1	0.96	0.10	-	106,106,106,106	0
56	MG	DB	212	1/1	0.82	0.13	-	111,111,111,111	0
56	MG	CA	1604	1/1	0.81	0.45	-	114,114,114,114	0
56	MG	DA	3606	1/1	0.87	0.08	-	76,76,76,76	0
56	MG	DA	3370	1/1	0.92	0.54	-	67,67,67,67	0
56	MG	BA	3402	1/1	0.88	0.44	-	55,55,55,55	0
56	MG	D0	104	1/1	0.87	0.26	-	86,86,86,86	0
56	MG	BA	3888	1/1	0.68	0.13	-	99,99,99,99	0
56	MG	DO	202	1/1	0.93	0.13	-	95,95,95,95	0
56	MG	BA	3777	1/1	0.90	0.33	-	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1716	1/1	0.96	0.24	-	66,66,66,66	0
56	MG	BA	3416	1/1	0.83	0.21	-	58,58,58,58	0
56	MG	BA	3636	1/1	0.97	0.07	-	63,63,63,63	0
56	MG	DA	3027	1/1	0.79	0.41	-	72,72,72,72	0
56	MG	BA	3608	1/1	0.96	0.14	-	81,81,81,81	0
56	MG	DA	3190	1/1	0.93	0.38	-	70,70,70,70	0
56	MG	BA	3783	1/1	0.96	0.23	-	74,74,74,74	0
56	MG	BA	3849	1/1	0.85	0.20	-	83,83,83,83	0
56	MG	AA	1862	1/1	0.97	0.08	-	45,45,45,45	0
56	MG	BA	3175	1/1	0.94	0.38	-	34,34,34,34	0
56	MG	CA	1610	1/1	0.92	0.11	-	63,63,63,63	0
56	MG	AA	1734	1/1	0.88	0.27	-	80,80,80,80	0
56	MG	CA	1744	1/1	0.94	0.06	-	80,80,80,80	0
56	MG	AA	1698	1/1	0.88	0.19	-	97,97,97,97	0
56	MG	BA	3604	1/1	0.98	0.06	-	80,80,80,80	0
56	MG	B9	102	1/1	0.95	0.28	-	43,43,43,43	0
56	MG	AA	1651	1/1	0.86	0.24	-	80,80,80,80	0
56	MG	BA	3818	1/1	0.96	0.28	-	86,86,86,86	0
56	MG	DA	3062	1/1	0.92	0.24	-	65,65,65,65	0
56	MG	AV	104	1/1	0.76	0.29	-	81,81,81,81	0
56	MG	CV	103	1/1	0.92	0.19	-	88,88,88,88	0
56	MG	BA	3384	1/1	0.61	0.77	-	72,72,72,72	0
56	MG	BA	3543	1/1	0.96	0.11	-	56,56,56,56	0
56	MG	BA	3259	1/1	0.87	0.32	-	66,66,66,66	0
56	MG	BA	3483	1/1	0.81	0.30	-	70,70,70,70	0
56	MG	BA	3468	1/1	0.95	0.21	-	54,54,54,54	0
56	MG	AA	1869	1/1	0.99	0.30	-	81,81,81,81	0
56	MG	DA	3076	1/1	0.93	0.19	-	51,51,51,51	0
56	MG	BA	3474	1/1	0.94	0.32	-	56,56,56,56	0
56	MG	CT	201	1/1	0.89	0.36	-	67,67,67,67	0
56	MG	BA	3034	1/1	0.94	0.21	-	23,23,23,23	0
56	MG	CA	1735	1/1	0.98	0.07	-	78,78,78,78	0
56	MG	DA	3528	1/1	0.84	0.22	-	88,88,88,88	0
56	MG	DA	3557	1/1	0.83	0.54	-	93,93,93,93	0
56	MG	BA	3262	1/1	0.92	0.28	-	57,57,57,57	0
56	MG	CA	1795	1/1	0.65	0.13	-	100,100,100,100	0
56	MG	BA	3665	1/1	0.92	0.14	-	44,44,44,44	0
56	MG	BB	219	1/1	0.63	0.21	-	85,85,85,85	0
56	MG	AA	1722	1/1	0.82	0.39	-	68,68,68,68	0
56	MG	BA	3296	1/1	0.90	0.30	-	43,43,43,43	0
56	MG	BA	3330	1/1	0.93	0.22	-	57,57,57,57	0
56	MG	DA	3323	1/1	0.94	0.13	-	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3018	1/1	0.91	0.38	-	53,53,53,53	0
56	MG	DA	3492	1/1	0.97	0.12	-	63,63,63,63	0
56	MG	BA	3363	1/1	0.77	0.39	-	63,63,63,63	0
56	MG	DA	3392	1/1	0.97	0.10	-	42,42,42,42	0
56	MG	DA	3343	1/1	0.87	0.65	-	70,70,70,70	0
56	MG	AA	1602	1/1	0.84	0.18	-	104,104,104,104	0
56	MG	CA	1714	1/1	0.87	0.14	-	74,74,74,74	0
56	MG	BA	3400	1/1	0.87	0.06	-	122,122,122,122	0
56	MG	DA	3235	1/1	0.91	0.25	-	53,53,53,53	0
56	MG	BB	208	1/1	0.93	0.32	-	54,54,54,54	0
56	MG	AA	1832	1/1	0.98	0.40	-	75,75,75,75	0
56	MG	DA	3664	1/1	0.86	0.22	-	97,97,97,97	0
56	MG	AA	1777	1/1	0.94	0.36	-	61,61,61,61	0
56	MG	CA	1756	1/1	0.93	0.85	-	84,84,84,84	0
56	MG	AA	1674	1/1	0.78	0.44	-	74,74,74,74	0
56	MG	DA	3395	1/1	0.86	0.15	-	58,58,58,58	0
56	MG	BA	3006	1/1	0.91	0.20	-	55,55,55,55	0
56	MG	AA	1692	1/1	0.92	0.29	-	67,67,67,67	0
56	MG	BA	3516	1/1	0.97	0.33	-	56,56,56,56	0
56	MG	AA	1783	1/1	0.88	0.26	-	61,61,61,61	0
56	MG	CA	1817	1/1	0.57	0.24	-	111,111,111,111	0
56	MG	BA	3726	1/1	0.98	0.36	-	48,48,48,48	0
56	MG	CA	1611	1/1	0.96	0.14	-	74,74,74,74	0
56	MG	BA	3264	1/1	0.88	0.25	-	59,59,59,59	0
56	MG	DA	3169	1/1	0.98	0.20	-	51,51,51,51	0
56	MG	DA	3037	1/1	0.94	0.14	-	83,83,83,83	0
56	MG	DA	3380	1/1	0.87	0.18	-	84,84,84,84	0
56	MG	DA	3031	1/1	0.94	0.11	-	49,49,49,49	0
56	MG	AA	1865	1/1	0.88	0.20	-	81,81,81,81	0
56	MG	AV	103	1/1	0.87	0.30	-	53,53,53,53	0
56	MG	DA	3082	1/1	0.64	0.12	-	89,89,89,89	0
56	MG	DA	3311	1/1	0.92	0.36	-	68,68,68,68	0
56	MG	BA	3500	1/1	0.92	0.19	-	93,93,93,93	0
56	MG	BA	3269	1/1	0.91	0.20	-	55,55,55,55	0
56	MG	BA	3032	1/1	0.90	0.13	-	45,45,45,45	0
56	MG	DB	202	1/1	0.90	0.43	-	73,73,73,73	0
56	MG	BA	3079	1/1	0.93	0.51	-	54,54,54,54	0
56	MG	BA	3205	1/1	0.88	0.39	-	43,43,43,43	0
56	MG	DA	3372	1/1	0.85	0.33	-	78,78,78,78	0
56	MG	CA	1815	1/1	0.92	0.14	-	119,119,119,119	0
56	MG	BA	3042	1/1	0.93	0.23	-	37,37,37,37	0
56	MG	BB	223	1/1	0.98	0.18	-	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3657	1/1	0.94	0.07	-	89,89,89,89	0
56	MG	CA	1667	1/1	0.91	0.32	-	66,66,66,66	0
56	MG	AA	1861	1/1	0.98	0.13	-	71,71,71,71	0
56	MG	DA	3300	1/1	0.93	0.29	-	55,55,55,55	0
56	MG	BA	3238	1/1	0.90	0.30	-	55,55,55,55	0
56	MG	AA	1738	1/1	0.94	0.14	-	84,84,84,84	0
56	MG	AA	1681	1/1	0.95	0.24	-	91,91,91,91	0
56	MG	BA	3721	1/1	0.95	0.23	-	23,23,23,23	0
56	MG	DA	3229	1/1	0.94	0.43	-	52,52,52,52	0
56	MG	AA	1647	1/1	0.92	0.30	-	77,77,77,77	0
56	MG	BA	3075	1/1	0.94	0.18	-	47,47,47,47	0
56	MG	BA	3023	1/1	0.97	0.13	-	46,46,46,46	0
56	MG	BA	3348	1/1	0.94	0.26	-	62,62,62,62	0
56	MG	BA	3460	1/1	0.92	0.41	-	52,52,52,52	0
56	MG	CA	1789	1/1	0.94	0.23	-	66,66,66,66	0
56	MG	AA	1883	1/1	0.87	0.06	-	86,86,86,86	0
56	MG	DA	3226	1/1	0.86	0.76	-	62,62,62,62	0
56	MG	CA	1819	1/1	0.81	0.25	-	96,96,96,96	0
56	MG	BA	3424	1/1	0.84	0.21	-	42,42,42,42	0
56	MG	CA	1617	1/1	0.93	0.47	-	61,61,61,61	0
56	MG	DA	3464	1/1	0.88	0.17	-	82,82,82,82	0
56	MG	BA	3274	1/1	0.89	0.21	-	35,35,35,35	0
56	MG	DA	3681	1/1	0.90	0.12	-	71,71,71,71	0
56	MG	DA	3388	1/1	0.95	0.09	-	74,74,74,74	0
56	MG	AA	1609	1/1	0.96	0.69	-	61,61,61,61	0
56	MG	BA	3377	1/1	0.82	0.45	-	50,50,50,50	0
56	MG	AA	1682	1/1	0.91	0.31	-	118,118,118,118	0
56	MG	AA	1700	1/1	0.94	0.22	-	116,116,116,116	0
56	MG	DA	3162	1/1	0.85	0.77	-	54,54,54,54	0
56	MG	BA	3584	1/1	0.95	0.14	-	54,54,54,54	0
56	MG	BA	3724	1/1	0.89	0.19	-	88,88,88,88	0
56	MG	DA	3424	1/1	0.96	0.15	-	72,72,72,72	0
56	MG	BA	3356	1/1	0.93	0.17	-	66,66,66,66	0
56	MG	BB	202	1/1	0.94	0.15	-	57,57,57,57	0
56	MG	BA	3891	1/1	0.93	0.20	-	74,74,74,74	0
56	MG	BA	3130	1/1	0.95	0.08	-	30,30,30,30	0
56	MG	CA	1675	1/1	0.77	0.46	-	77,77,77,77	0
56	MG	BA	3674	1/1	0.97	0.12	-	27,27,27,27	0
56	MG	BA	3118	1/1	0.93	0.58	-	44,44,44,44	0
56	MG	BA	3472	1/1	0.82	0.68	-	58,58,58,58	0
56	MG	AA	1930	1/1	0.82	0.13	-	58,58,58,58	0
56	MG	BA	3315	1/1	0.85	0.41	-	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3008	1/1	0.91	0.28	-	108,108,108,108	0
56	MG	BA	3579	1/1	0.95	0.17	-	64,64,64,64	0
56	MG	AA	1617	1/1	0.91	0.06	-	58,58,58,58	0
56	MG	BA	3181	1/1	0.89	0.33	-	69,69,69,69	0
56	MG	DA	3023	1/1	0.91	0.20	-	56,56,56,56	0
56	MG	BA	3015	1/1	0.93	0.53	-	59,59,59,59	0
56	MG	BA	3202	1/1	0.96	0.16	-	42,42,42,42	0
56	MG	BA	3696	1/1	0.97	0.07	-	30,30,30,30	0
56	MG	AA	1940	1/1	0.95	0.14	-	92,92,92,92	0
56	MG	BA	3790	1/1	0.89	0.20	-	75,75,75,75	0
56	MG	AA	1818	1/1	0.93	0.19	-	73,73,73,73	0
56	MG	BA	3645	1/1	0.95	0.14	-	46,46,46,46	0
56	MG	BA	3481	1/1	0.91	0.15	-	87,87,87,87	0
56	MG	DA	3119	1/1	0.91	0.44	-	39,39,39,39	0
56	MG	BB	218	1/1	0.95	0.12	-	57,57,57,57	0
56	MG	DA	3248	1/1	0.95	0.22	-	53,53,53,53	0
56	MG	CV	102	1/1	0.88	0.21	-	85,85,85,85	0
56	MG	CA	1760	1/1	0.93	0.75	-	103,103,103,103	0
56	MG	BA	3510	1/1	0.80	0.26	-	60,60,60,60	0
56	MG	BA	3892	1/1	0.83	0.21	-	94,94,94,94	0
56	MG	BA	3822	1/1	0.90	0.17	-	66,66,66,66	0
56	MG	BA	3497	1/1	0.95	0.20	-	61,61,61,61	0
56	MG	BA	3838	1/1	0.98	0.20	-	28,28,28,28	0
56	MG	BA	3386	1/1	0.97	0.17	-	54,54,54,54	0
56	MG	BA	3617	1/1	0.99	0.07	-	58,58,58,58	0
56	MG	DA	3313	1/1	0.92	0.24	-	74,74,74,74	0
56	MG	AA	1870	1/1	0.88	0.14	-	85,85,85,85	0
56	MG	BA	3001	1/1	0.88	0.18	-	35,35,35,35	0
56	MG	CA	1812	1/1	0.65	0.28	-	114,114,114,114	0
56	MG	BA	3568	1/1	0.94	0.16	-	70,70,70,70	0
56	MG	DA	3208	1/1	0.82	0.29	-	91,91,91,91	0
56	MG	DA	3236	1/1	0.81	0.47	-	68,68,68,68	0
56	MG	BA	3136	1/1	0.97	0.26	-	32,32,32,32	0
56	MG	DA	3194	1/1	0.91	0.52	-	65,65,65,65	0
56	MG	BA	3449	1/1	0.97	0.50	-	34,34,34,34	0
56	MG	DA	3619	1/1	0.95	0.12	-	39,39,39,39	0
56	MG	BA	3381	1/1	0.95	0.37	-	19,19,19,19	0
56	MG	BA	3184	1/1	0.97	0.29	-	31,31,31,31	0
56	MG	BA	3174	1/1	0.91	0.25	-	62,62,62,62	0
56	MG	DD	304	1/1	0.92	0.38	-	65,65,65,65	0
56	MG	DA	3158	1/1	0.92	0.65	-	82,82,82,82	0
56	MG	AA	1926	1/1	0.91	0.10	-	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3148	1/1	0.86	0.57	-	80,80,80,80	0
56	MG	DA	3111	1/1	0.94	0.28	-	51,51,51,51	0
56	MG	BD	304	1/1	0.98	0.42	-	20,20,20,20	0
56	MG	DA	3365	1/1	0.94	0.12	-	71,71,71,71	0
56	MG	BA	3869	1/1	0.94	0.10	-	64,64,64,64	0
56	MG	BA	3577	1/1	0.91	0.12	-	78,78,78,78	0
56	MG	BA	3275	1/1	0.91	0.24	-	55,55,55,55	0
56	MG	BA	3835	1/1	0.91	0.29	-	86,86,86,86	0
56	MG	BA	3843	1/1	0.90	0.13	-	78,78,78,78	0
56	MG	AA	1719	1/1	0.81	0.26	-	70,70,70,70	0
56	MG	BA	3588	1/1	0.97	0.18	-	78,78,78,78	0
56	MG	BA	3409	1/1	0.94	0.16	-	45,45,45,45	0
56	MG	BA	3613	1/1	0.94	0.25	-	40,40,40,40	0
56	MG	CA	1742	1/1	0.88	0.27	-	89,89,89,89	0
56	MG	BA	3785	1/1	0.91	0.17	-	69,69,69,69	0
56	MG	AA	1884	1/1	0.80	0.16	-	82,82,82,82	0
56	MG	CA	1780	1/1	0.58	0.15	-	90,90,90,90	0
56	MG	AA	1937	1/1	0.58	0.14	-	79,79,79,79	0
56	MG	DA	3438	1/1	0.96	0.09	-	66,66,66,66	0
56	MG	CA	1614	1/1	0.94	0.11	-	81,81,81,81	0
56	MG	DA	3456	1/1	0.97	0.18	-	56,56,56,56	0
56	MG	DA	3180	1/1	0.89	0.11	-	75,75,75,75	0
56	MG	DA	3116	1/1	0.89	0.26	-	79,79,79,79	0
56	MG	BA	3276	1/1	0.92	0.23	-	57,57,57,57	0
56	MG	DA	3210	1/1	0.81	0.36	-	74,74,74,74	0
56	MG	BA	3150	1/1	0.94	0.49	-	54,54,54,54	0
56	MG	DA	3582	1/1	0.83	0.12	-	85,85,85,85	0
56	MG	DA	3280	1/1	0.83	0.39	-	80,80,80,80	0
56	MG	AA	1742	1/1	0.81	0.20	-	93,93,93,93	0
56	MG	AA	1655	1/1	0.92	0.27	-	77,77,77,77	0
56	MG	AA	1606	1/1	0.97	0.27	-	35,35,35,35	0
56	MG	BA	3420	1/1	0.85	0.23	-	65,65,65,65	0
56	MG	BA	3765	1/1	0.98	0.06	-	59,59,59,59	0
56	MG	BA	3263	1/1	0.97	0.16	-	41,41,41,41	0
56	MG	DA	3414	1/1	0.96	0.17	-	50,50,50,50	0
56	MG	AA	1752	1/1	0.87	0.38	-	88,88,88,88	0
56	MG	BA	3312	1/1	0.91	0.28	-	54,54,54,54	0
56	MG	DA	3209	1/1	0.97	0.20	-	89,89,89,89	0
56	MG	DA	3305	1/1	0.94	0.19	-	76,76,76,76	0
56	MG	CA	1725	1/1	0.95	0.17	-	79,79,79,79	0
56	MG	DA	3688	1/1	0.81	0.15	-	80,80,80,80	0
56	MG	DA	3346	1/1	0.91	0.27	-	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3737	1/1	0.94	0.08	-	60,60,60,60	0
56	MG	BA	3567	1/1	0.94	0.15	-	55,55,55,55	0
56	MG	DA	3093	1/1	0.96	0.29	-	77,77,77,77	0
56	MG	DA	3057	1/1	0.90	0.31	-	66,66,66,66	0
56	MG	BA	3116	1/1	0.98	0.29	-	37,37,37,37	0
56	MG	BA	3050	1/1	0.89	0.29	-	60,60,60,60	0
56	MG	DA	3690	1/1	0.68	0.07	-	107,107,107,107	0
56	MG	CA	1752	1/1	0.90	0.20	-	58,58,58,58	0
56	MG	AA	1702	1/1	0.92	0.24	-	71,71,71,71	0
56	MG	DA	3653	1/1	0.97	0.19	-	59,59,59,59	0
56	MG	BA	3268	1/1	0.97	0.14	-	52,52,52,52	0
56	MG	AA	1669	1/1	0.85	0.37	-	84,84,84,84	0
56	MG	B7	101	1/1	0.89	0.22	-	51,51,51,51	0
56	MG	BA	3684	1/1	0.95	0.20	-	42,42,42,42	0
56	MG	AA	1828	1/1	0.76	0.41	-	70,70,70,70	0
56	MG	BA	3750	1/1	0.93	0.12	-	65,65,65,65	0
56	MG	DA	3269	1/1	0.83	0.17	-	85,85,85,85	0
56	MG	AA	1709	1/1	0.86	0.12	-	86,86,86,86	0
56	MG	AA	1718	1/1	0.75	0.22	-	70,70,70,70	0
56	MG	DA	3644	1/1	0.96	0.05	-	80,80,80,80	0
56	MG	CA	1787	1/1	0.86	0.17	-	98,98,98,98	0
56	MG	DA	3538	1/1	0.77	0.25	-	96,96,96,96	0
56	MG	DA	3096	1/1	0.96	0.20	-	41,41,41,41	0
56	MG	BA	3349	1/1	0.91	0.20	-	52,52,52,52	0
56	MG	DA	3682	1/1	0.80	0.12	-	90,90,90,90	0
56	MG	DA	3247	1/1	0.85	0.30	-	58,58,58,58	0
56	MG	CA	1715	1/1	0.97	0.13	-	66,66,66,66	0
56	MG	BA	3447	1/1	0.97	0.11	-	45,45,45,45	0
56	MG	AA	1886	1/1	0.92	0.11	-	79,79,79,79	0
56	MG	BA	3735	1/1	0.96	0.05	-	58,58,58,58	0
56	MG	DA	3234	1/1	0.84	0.35	-	62,62,62,62	0
56	MG	DA	3279	1/1	0.85	0.24	-	74,74,74,74	0
56	MG	AA	1760	1/1	0.81	0.83	-	64,64,64,64	0
56	MG	BA	3194	1/1	0.82	0.30	-	70,70,70,70	0
56	MG	BA	3162	1/1	0.91	0.18	-	36,36,36,36	0
56	MG	CA	1677	1/1	0.91	0.13	-	88,88,88,88	0
56	MG	BA	3345	1/1	0.93	0.19	-	74,74,74,74	0
56	MG	BA	3842	1/1	0.88	0.16	-	85,85,85,85	0
56	MG	CA	1777	1/1	0.94	0.11	-	82,82,82,82	0
56	MG	BA	3513	1/1	0.83	0.14	-	60,60,60,60	0
56	MG	DA	3337	1/1	0.92	0.22	-	65,65,65,65	0
56	MG	BP	202	1/1	0.94	0.17	-	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1784	1/1	0.80	0.32	-	69,69,69,69	0
56	MG	CA	1638	1/1	0.48	0.56	-	99,99,99,99	0
56	MG	BA	3060	1/1	0.94	0.14	-	52,52,52,52	0
56	MG	AA	1678	1/1	0.74	0.27	-	90,90,90,90	0
56	MG	AV	113	1/1	0.66	0.54	-	84,84,84,84	0
56	MG	DA	3522	1/1	0.89	0.22	-	76,76,76,76	0
56	MG	BF	306	1/1	0.92	0.22	-	48,48,48,48	0
56	MG	DA	3133	1/1	0.91	0.52	-	51,51,51,51	0
56	MG	AA	1817	1/1	0.84	0.83	-	93,93,93,93	0
56	MG	CA	1687	1/1	0.87	0.26	-	81,81,81,81	0
56	MG	AA	1848	1/1	0.92	0.43	-	71,71,71,71	0
56	MG	BA	3492	1/1	0.88	0.25	-	61,61,61,61	0
56	MG	DA	3616	1/1	0.73	0.48	-	115,115,115,115	0
56	MG	DA	3113	1/1	0.85	0.23	-	59,59,59,59	0
56	MG	CA	1779	1/1	0.98	0.18	-	95,95,95,95	0
56	MG	AA	1691	1/1	0.93	0.32	-	121,121,121,121	0
56	MG	CA	1699	1/1	0.71	0.23	-	97,97,97,97	0
56	MG	DA	3204	1/1	0.86	0.38	-	76,76,76,76	0
56	MG	DA	3187	1/1	0.90	0.29	-	109,109,109,109	0
56	MG	AA	1896	1/1	0.99	0.10	-	88,88,88,88	0
56	MG	AA	1900	1/1	0.74	0.12	-	110,110,110,110	0
56	MG	DA	3212	1/1	0.96	0.28	-	66,66,66,66	0
56	MG	DA	3327	1/1	0.96	0.41	-	64,64,64,64	0
56	MG	DA	3259	1/1	0.54	0.53	-	78,78,78,78	0
56	MG	DA	3239	1/1	0.89	0.47	-	62,62,62,62	0
56	MG	DA	3603	1/1	0.81	0.51	-	100,100,100,100	0
56	MG	BA	3125	1/1	0.81	0.55	-	48,48,48,48	0
56	MG	AA	1840	1/1	0.96	0.16	-	83,83,83,83	0
56	MG	BA	3701	1/1	0.98	0.13	-	26,26,26,26	0
56	MG	CA	1798	1/1	0.88	0.16	-	94,94,94,94	0
56	MG	BA	3071	1/1	0.91	0.35	-	41,41,41,41	0
56	MG	CA	1762	1/1	0.89	0.22	-	76,76,76,76	0
56	MG	AA	1836	1/1	0.96	0.16	-	59,59,59,59	0
56	MG	AA	1916	1/1	0.97	0.07	-	82,82,82,82	0
56	MG	BB	209	1/1	0.83	0.36	-	79,79,79,79	0
56	MG	CA	1619	1/1	0.93	0.29	-	71,71,71,71	0
56	MG	BA	3743	1/1	0.97	0.32	-	71,71,71,71	0
56	MG	DA	3103	1/1	0.95	0.49	-	45,45,45,45	0
56	MG	BA	3830	1/1	0.97	0.15	-	31,31,31,31	0
56	MG	AA	1612	1/1	0.83	0.26	-	60,60,60,60	0
56	MG	AA	1798	1/1	0.86	0.41	-	54,54,54,54	0
56	MG	AA	1914	1/1	0.85	0.19	-	104,104,104,104	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	CA	1734	1/1	0.83	0.24	-	80,80,80,80	0
56	MG	BA	3085	1/1	0.96	0.29	-	35,35,35,35	0
56	MG	DA	3676	1/1	0.80	0.28	-	94,94,94,94	0
56	MG	DA	3166	1/1	0.77	0.66	-	66,66,66,66	0
56	MG	DA	3499	1/1	0.91	0.17	-	68,68,68,68	0
56	MG	BA	3297	1/1	0.91	0.24	-	53,53,53,53	0
56	MG	BA	3126	1/1	0.98	0.46	-	40,40,40,40	0
56	MG	DA	3242	1/1	0.92	0.28	-	77,77,77,77	0
56	MG	DA	3569	1/1	0.90	0.09	-	76,76,76,76	0
56	MG	DA	3237	1/1	0.90	0.25	-	61,61,61,61	0
56	MG	BB	214	1/1	0.92	0.21	-	51,51,51,51	0
56	MG	BA	3002	1/1	0.82	0.34	-	65,65,65,65	0
56	MG	BA	3234	1/1	0.91	0.29	-	43,43,43,43	0
56	MG	DA	3050	1/1	0.92	0.20	-	67,67,67,67	0
56	MG	DA	3442	1/1	0.96	0.19	-	56,56,56,56	0
56	MG	DD	301	1/1	0.93	0.17	-	84,84,84,84	0
56	MG	DA	3115	1/1	0.94	0.59	-	75,75,75,75	0
56	MG	DA	3534	1/1	0.98	0.12	-	73,73,73,73	0
56	MG	DA	3333	1/1	0.86	0.42	-	50,50,50,50	0
56	MG	BA	3308	1/1	0.94	0.20	-	51,51,51,51	0
56	MG	AA	1673	1/1	0.96	0.22	-	74,74,74,74	0
56	MG	BA	3231	1/1	0.97	0.20	-	31,31,31,31	0
56	MG	DA	3611	1/1	0.85	0.27	-	80,80,80,80	0
56	MG	AA	1624	1/1	0.93	0.50	-	57,57,57,57	0
56	MG	CA	1814	1/1	0.82	0.09	-	114,114,114,114	0
56	MG	DA	3126	1/1	0.85	0.24	-	69,69,69,69	0
56	MG	AA	1922	1/1	0.71	0.18	-	106,106,106,106	0
56	MG	AA	1757	1/1	0.94	0.20	-	58,58,58,58	0
56	MG	AA	1769	1/1	0.96	0.14	-	84,84,84,84	0
56	MG	DA	3009	1/1	0.63	0.10	-	90,90,90,90	0
56	MG	AA	1946	1/1	0.98	0.11	-	81,81,81,81	0
56	MG	CA	1671	1/1	0.81	0.20	-	82,82,82,82	0
56	MG	BA	3746	1/1	0.93	0.27	-	77,77,77,77	0
56	MG	BA	3712	1/1	0.99	0.21	-	48,48,48,48	0
56	MG	DA	3073	1/1	0.84	0.57	-	63,63,63,63	0
56	MG	AA	1802	1/1	0.78	0.40	-	67,67,67,67	0
56	MG	BA	3733	1/1	0.95	0.17	-	49,49,49,49	0
56	MG	DA	3546	1/1	0.91	0.10	-	73,73,73,73	0
56	MG	DA	3138	1/1	0.88	0.41	-	58,58,58,58	0
56	MG	CV	104	1/1	0.94	0.22	-	92,92,92,92	0
56	MG	BA	3068	1/1	0.93	0.10	-	56,56,56,56	0
56	MG	BA	3217	1/1	0.91	0.15	-	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3016	1/1	0.92	0.29	-	42,42,42,42	0
56	MG	BO	202	1/1	0.90	0.34	-	42,42,42,42	0
56	MG	CA	1655	1/1	0.90	0.51	-	66,66,66,66	0
56	MG	DA	3507	1/1	0.86	0.20	-	109,109,109,109	0
56	MG	BA	3223	1/1	0.82	0.24	-	59,59,59,59	0
56	MG	BA	3597	1/1	0.93	0.08	-	66,66,66,66	0
56	MG	AA	1847	1/1	0.97	0.28	-	98,98,98,98	0
56	MG	BA	3164	1/1	0.97	0.14	-	26,26,26,26	0
56	MG	BA	3380	1/1	0.95	0.19	-	44,44,44,44	0
56	MG	DA	3551	1/1	0.95	0.25	-	42,42,42,42	0
56	MG	DA	3415	1/1	0.98	0.43	-	33,33,33,33	0
56	MG	BA	3213	1/1	0.91	0.22	-	37,37,37,37	0
56	MG	BA	3761	1/1	0.96	0.21	-	77,77,77,77	0
56	MG	BA	3053	1/1	0.93	0.21	-	44,44,44,44	0
56	MG	DA	3607	1/1	0.87	0.14	-	90,90,90,90	0
56	MG	DA	3366	1/1	0.85	0.16	-	81,81,81,81	0
56	MG	BA	3578	1/1	0.97	0.16	-	68,68,68,68	0
56	MG	BA	3108	1/1	0.95	0.12	-	41,41,41,41	0
56	MG	BA	3332	1/1	0.69	0.36	-	74,74,74,74	0
56	MG	AA	1672	1/1	0.78	0.29	-	78,78,78,78	0
56	MG	BA	3719	1/1	0.94	0.12	-	71,71,71,71	0
56	MG	CA	1630	1/1	0.94	0.53	-	70,70,70,70	0
56	MG	BA	3379	1/1	0.88	0.29	-	39,39,39,39	0
56	MG	BA	3793	1/1	0.96	0.46	-	69,69,69,69	0
56	MG	DA	3217	1/1	0.75	0.18	-	68,68,68,68	0
56	MG	DA	3189	1/1	0.82	0.20	-	63,63,63,63	0
56	MG	BA	3361	1/1	0.95	0.23	-	60,60,60,60	0
56	MG	AA	1907	1/1	0.91	0.16	-	78,78,78,78	0
56	MG	DA	3181	1/1	0.92	0.22	-	59,59,59,59	0
56	MG	DA	3028	1/1	0.95	0.52	-	56,56,56,56	0
56	MG	CA	1653	1/1	0.80	0.39	-	78,78,78,78	0
56	MG	DA	3440	1/1	0.99	0.06	-	47,47,47,47	0
56	MG	AA	1905	1/1	0.78	0.15	-	130,130,130,130	0
56	MG	BA	3655	1/1	0.94	0.12	-	46,46,46,46	0
56	MG	DE	301	1/1	0.82	0.21	-	64,64,64,64	0
56	MG	BA	3253	1/1	0.96	0.38	-	20,20,20,20	0
56	MG	DA	3240	1/1	0.91	0.13	-	74,74,74,74	0
56	MG	AA	1927	1/1	0.97	0.11	-	85,85,85,85	0
56	MG	AA	1887	1/1	0.86	0.24	-	90,90,90,90	0
56	MG	CA	1774	1/1	0.88	0.17	-	111,111,111,111	0
56	MG	CA	1609	1/1	0.95	0.12	-	70,70,70,70	0
56	MG	DA	3617	1/1	0.95	0.10	-	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3786	1/1	0.95	0.16	-	44,44,44,44	0
56	MG	BA	3277	1/1	0.90	0.17	-	65,65,65,65	0
56	MG	BA	3399	1/1	0.85	0.09	-	95,95,95,95	0
56	MG	BA	3097	1/1	0.98	0.14	-	34,34,34,34	0
56	MG	DA	3193	1/1	0.91	0.15	-	67,67,67,67	0
56	MG	AA	1866	1/1	0.94	0.34	-	86,86,86,86	0
56	MG	BA	3499	1/1	0.71	0.30	-	73,73,73,73	0
56	MG	DA	3491	1/1	0.76	0.15	-	101,101,101,101	0
56	MG	CA	1651	1/1	0.93	0.37	-	54,54,54,54	0
56	MG	BA	3471	1/1	0.90	0.26	-	49,49,49,49	0
56	MG	AA	1603	1/1	0.87	0.12	-	78,78,78,78	0
56	MG	DA	3381	1/1	0.80	0.19	-	88,88,88,88	0
56	MG	DA	3497	1/1	0.72	0.20	-	70,70,70,70	0
56	MG	DA	3144	1/1	0.88	0.38	-	71,71,71,71	0
56	MG	AA	1671	1/1	0.93	0.64	-	94,94,94,94	0
56	MG	BA	3138	1/1	0.98	0.20	-	33,33,33,33	0
56	MG	DA	3253	1/1	0.96	0.36	-	67,67,67,67	0
56	MG	BA	3718	1/1	0.94	0.12	-	87,87,87,87	0
56	MG	BA	3493	1/1	0.70	0.40	-	62,62,62,62	0
56	MG	DB	206	1/1	0.86	0.29	-	77,77,77,77	0
56	MG	BX	101	1/1	0.64	0.44	-	78,78,78,78	0
56	MG	BA	3301	1/1	0.89	0.12	-	70,70,70,70	0
56	MG	AA	1826	1/1	0.75	0.14	-	63,63,63,63	0
56	MG	DA	3429	1/1	0.97	0.06	-	73,73,73,73	0
56	MG	AA	1932	1/1	0.55	0.26	-	116,116,116,116	0
56	MG	BA	3825	1/1	0.98	0.05	-	37,37,37,37	0
56	MG	BA	3526	1/1	0.97	0.08	-	40,40,40,40	0
56	MG	DA	3604	1/1	0.94	0.17	-	97,97,97,97	0
56	MG	DA	3125	1/1	0.95	0.19	-	65,65,65,65	0
56	MG	DA	3170	1/1	0.92	0.32	-	96,96,96,96	0
56	MG	BA	3242	1/1	0.96	0.24	-	47,47,47,47	0
56	MG	BA	3267	1/1	0.89	0.31	-	53,53,53,53	0
56	MG	BA	3626	1/1	0.95	0.08	-	70,70,70,70	0
56	MG	AA	1849	1/1	0.95	0.21	-	59,59,59,59	0
56	MG	BA	3170	1/1	0.97	0.19	-	43,43,43,43	0
56	MG	CA	1633	1/1	0.91	0.43	-	81,81,81,81	0
56	MG	DA	3591	1/1	0.91	0.18	-	86,86,86,86	0
56	MG	BA	3716	1/1	0.97	0.16	-	40,40,40,40	0
56	MG	DA	3648	1/1	0.91	0.23	-	53,53,53,53	0
56	MG	DA	3191	1/1	0.89	0.18	-	77,77,77,77	0
56	MG	DA	3430	1/1	0.85	0.21	-	83,83,83,83	0
56	MG	BA	3775	1/1	0.96	0.27	-	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1765	1/1	0.95	0.16	-	48,48,48,48	0
56	MG	DA	3174	1/1	0.85	0.53	-	68,68,68,68	0
56	MG	AA	1767	1/1	0.90	0.20	-	59,59,59,59	0
56	MG	CA	1623	1/1	0.92	0.26	-	68,68,68,68	0
56	MG	AA	1675	1/1	0.90	1.11	-	78,78,78,78	0
56	MG	DA	3614	1/1	0.81	0.38	-	98,98,98,98	0
56	MG	BA	3554	1/1	0.98	0.14	-	55,55,55,55	0
56	MG	BA	3115	1/1	0.95	0.24	-	52,52,52,52	0
56	MG	DA	3533	1/1	0.90	0.17	-	95,95,95,95	0
56	MG	D5	101	1/1	0.95	0.61	-	62,62,62,62	0
56	MG	DA	3283	1/1	0.87	0.56	-	76,76,76,76	0
56	MG	BA	3105	1/1	0.96	0.16	-	45,45,45,45	0
56	MG	BA	3338	1/1	0.91	0.35	-	63,63,63,63	0
56	MG	AA	1909	1/1	0.92	0.05	-	91,91,91,91	0
56	MG	BA	3046	1/1	0.92	0.14	-	49,49,49,49	0
56	MG	AA	1750	1/1	0.96	0.15	-	79,79,79,79	0
56	MG	BA	3314	1/1	0.87	0.31	-	65,65,65,65	0
56	MG	BA	3503	1/1	0.95	0.25	-	51,51,51,51	0
56	MG	BA	3206	1/1	0.92	0.32	-	31,31,31,31	0
56	MG	BB	203	1/1	0.79	0.35	-	63,63,63,63	0
56	MG	BA	3382	1/1	0.95	0.16	-	68,68,68,68	0
56	MG	AA	1729	1/1	0.94	0.18	-	79,79,79,79	0
56	MG	DA	3350	1/1	0.90	0.29	-	72,72,72,72	0
56	MG	DA	3205	1/1	0.79	0.23	-	68,68,68,68	0
56	MG	DA	3335	1/1	0.60	0.48	-	74,74,74,74	0
56	MG	BA	3662	1/1	0.98	0.15	-	30,30,30,30	0
56	MG	BA	3103	1/1	0.88	0.41	-	54,54,54,54	0
56	MG	AA	1677	1/1	0.89	0.55	-	84,84,84,84	0
56	MG	BB	216	1/1	0.89	0.19	-	38,38,38,38	0
56	MG	DA	3652	1/1	0.98	0.08	-	85,85,85,85	0
56	MG	BA	3142	1/1	0.92	0.36	-	44,44,44,44	0
56	MG	BA	3306	1/1	0.95	0.18	-	45,45,45,45	0
56	MG	BA	3415	1/1	0.82	0.31	-	50,50,50,50	0
56	MG	BA	3517	1/1	0.79	0.40	-	58,58,58,58	0
56	MG	AA	1947	1/1	0.96	0.07	-	63,63,63,63	0
56	MG	BA	3616	1/1	0.98	0.23	-	40,40,40,40	0
56	MG	AA	1772	1/1	0.92	0.33	-	77,77,77,77	0
56	MG	AA	1639	1/1	0.91	0.12	-	74,74,74,74	0
56	MG	BA	3623	1/1	0.97	0.05	-	75,75,75,75	0
56	MG	BA	3776	1/1	0.95	0.53	-	68,68,68,68	0
56	MG	AA	1791	1/1	0.89	0.26	-	99,99,99,99	0
56	MG	AA	1920	1/1	0.92	0.11	-	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	D8	201	1/1	0.92	0.22	-	67,67,67,67	0
56	MG	BA	3530	1/1	0.97	0.12	-	49,49,49,49	0
56	MG	BA	3485	1/1	0.84	0.24	-	52,52,52,52	0
56	MG	AE	201	1/1	0.79	0.47	-	83,83,83,83	0
56	MG	BA	3762	1/1	0.95	0.14	-	48,48,48,48	0
56	MG	CA	1807	1/1	0.74	0.13	-	100,100,100,100	0
56	MG	AA	1902	1/1	0.87	0.27	-	121,121,121,121	0
56	MG	BA	3036	1/1	0.96	0.33	-	54,54,54,54	0
56	MG	DA	3089	1/1	0.80	0.51	-	82,82,82,82	0
56	MG	DA	3684	1/1	0.91	0.19	-	98,98,98,98	0
56	MG	DA	3683	1/1	0.91	0.28	-	94,94,94,94	0
56	MG	BA	3857	1/1	0.63	0.22	-	78,78,78,78	0
56	MG	CA	1662	1/1	0.89	0.47	-	92,92,92,92	0
56	MG	CA	1627	1/1	0.96	0.56	-	50,50,50,50	0
56	MG	BA	3545	1/1	0.97	0.12	-	53,53,53,53	0
56	MG	BV	202	1/1	0.96	0.19	-	67,67,67,67	0
56	MG	BA	3272	1/1	0.68	0.41	-	72,72,72,72	0
56	MG	DA	3223	1/1	0.83	0.58	-	70,70,70,70	0
56	MG	BA	3890	1/1	0.95	0.08	-	70,70,70,70	0
56	MG	BA	3730	1/1	0.94	0.06	-	63,63,63,63	0
56	MG	AV	110	1/1	0.85	0.28	-	80,80,80,80	0
56	MG	AA	1708	1/1	0.81	0.28	-	79,79,79,79	0
56	MG	DA	3512	1/1	0.99	0.32	-	49,49,49,49	0
56	MG	CA	1601	1/1	0.91	0.83	-	79,79,79,79	0
56	MG	BA	3401	1/1	0.90	0.23	-	57,57,57,57	0
56	MG	DA	3363	1/1	0.82	0.24	-	64,64,64,64	0
56	MG	BA	3353	1/1	0.93	0.21	-	57,57,57,57	0
56	MG	BA	3661	1/1	0.97	0.24	-	53,53,53,53	0
56	MG	BA	3159	1/1	0.97	0.27	-	43,43,43,43	0
56	MG	AA	1780	1/1	0.97	0.23	-	55,55,55,55	0
56	MG	DA	3131	1/1	0.96	0.34	-	46,46,46,46	0
56	MG	BA	3538	1/1	0.90	0.14	-	33,33,33,33	0
56	MG	CA	1746	1/1	0.94	0.09	-	65,65,65,65	0
56	MG	DA	3011	1/1	0.90	0.15	-	66,66,66,66	0
56	MG	B5	101	1/1	0.90	0.27	-	50,50,50,50	0
56	MG	BA	3505	1/1	0.90	0.34	-	64,64,64,64	0
56	MG	CA	1747	1/1	0.88	0.17	-	96,96,96,96	0
56	MG	BA	3271	1/1	0.96	0.16	-	44,44,44,44	0
56	MG	AY	201	1/1	0.80	0.21	-	111,111,111,111	0
56	MG	BA	3451	1/1	0.95	0.21	-	47,47,47,47	0
56	MG	BZ	302	1/1	0.88	0.53	-	62,62,62,62	0
56	MG	DA	3056	1/1	0.86	0.30	-	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3196	1/1	0.93	0.13	-	77,77,77,77	0
56	MG	DA	3025	1/1	0.49	0.35	-	76,76,76,76	0
56	MG	CA	1672	1/1	0.91	0.34	-	76,76,76,76	0
56	MG	DA	3319	1/1	0.70	0.54	-	69,69,69,69	0
56	MG	AA	1699	1/1	0.67	0.21	-	109,109,109,109	0
56	MG	BA	3151	1/1	0.92	0.23	-	38,38,38,38	0
56	MG	BA	3266	1/1	0.88	0.45	-	59,59,59,59	0
56	MG	BA	3860	1/1	0.94	0.04	-	57,57,57,57	0
56	MG	DA	3685	1/1	0.82	0.20	-	96,96,96,96	0
56	MG	DA	3560	1/1	0.97	0.21	-	64,64,64,64	0
56	MG	BA	3354	1/1	0.93	0.11	-	34,34,34,34	0
56	MG	DA	3663	1/1	0.89	0.11	-	81,81,81,81	0
56	MG	AA	1741	1/1	0.78	0.49	-	85,85,85,85	0
56	MG	BA	3319	1/1	0.92	0.15	-	59,59,59,59	0
56	MG	BA	3861	1/1	0.90	0.08	-	66,66,66,66	0
56	MG	DA	3581	1/1	0.93	0.10	-	46,46,46,46	0
56	MG	BA	3091	1/1	0.91	0.33	-	60,60,60,60	0
56	MG	BZ	301	1/1	0.93	0.21	-	54,54,54,54	0
56	MG	BA	3039	1/1	0.91	0.18	-	34,34,34,34	0
56	MG	AA	1712	1/1	0.80	0.19	-	72,72,72,72	0
56	MG	BA	3133	1/1	0.94	0.54	-	27,27,27,27	0
56	MG	AA	1773	1/1	0.82	0.31	-	58,58,58,58	0
56	MG	AA	1854	1/1	0.96	0.17	-	73,73,73,73	0
56	MG	BA	3285	1/1	0.95	0.14	-	55,55,55,55	0
56	MG	BA	3870	1/1	0.90	0.28	-	100,100,100,100	0
56	MG	CA	1688	1/1	0.82	0.34	-	68,68,68,68	0
56	MG	BA	3329	1/1	0.83	0.14	-	85,85,85,85	0
56	MG	DA	3294	1/1	0.85	0.22	-	82,82,82,82	0
56	MG	BY	202	1/1	0.92	0.28	-	54,54,54,54	0
56	MG	BA	3208	1/1	0.96	0.12	-	57,57,57,57	0
56	MG	BA	3444	1/1	0.91	0.19	-	74,74,74,74	0
56	MG	BA	3322	1/1	0.93	0.23	-	54,54,54,54	0
56	MG	DA	3291	1/1	0.88	0.17	-	50,50,50,50	0
56	MG	DA	3362	1/1	0.93	0.42	-	75,75,75,75	0
56	MG	BA	3529	1/1	0.95	0.14	-	49,49,49,49	0
56	MG	CA	1811	1/1	0.78	0.07	-	102,102,102,102	0
56	MG	BA	3482	1/1	0.92	0.15	-	73,73,73,73	0
56	MG	BA	3055	1/1	0.91	0.15	-	37,37,37,37	0
56	MG	BA	3512	1/1	0.88	0.32	-	56,56,56,56	0
56	MG	AA	1654	1/1	0.95	0.34	-	80,80,80,80	0
56	MG	DA	3636	1/1	0.98	0.13	-	78,78,78,78	0
56	MG	BA	3641	1/1	0.97	0.11	-	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3725	1/1	0.94	0.13	-	69,69,69,69	0
56	MG	BA	3430	1/1	0.92	0.18	-	69,69,69,69	0
56	MG	AA	1768	1/1	0.88	0.26	-	88,88,88,88	0
56	MG	AA	1710	1/1	0.93	0.11	-	76,76,76,76	0
56	MG	BA	3795	1/1	0.97	0.17	-	84,84,84,84	0
56	MG	AA	1918	1/1	0.95	0.13	-	68,68,68,68	0
56	MG	CA	1713	1/1	0.86	0.11	-	71,71,71,71	0
56	MG	AA	1666	1/1	0.95	0.25	-	70,70,70,70	0
56	MG	BA	3364	1/1	0.89	0.20	-	69,69,69,69	0
56	MG	DA	3069	1/1	0.90	0.37	-	83,83,83,83	0
56	MG	CA	1659	1/1	0.82	0.11	-	85,85,85,85	0
56	MG	DA	3314	1/1	0.88	0.17	-	52,52,52,52	0
56	MG	BA	3388	1/1	0.86	0.32	-	77,77,77,77	0
56	MG	DA	3245	1/1	0.97	0.14	-	39,39,39,39	0
56	MG	AA	1899	1/1	0.58	0.22	-	115,115,115,115	0
56	MG	DU	201	1/1	0.87	0.31	-	72,72,72,72	0
56	MG	DA	3136	1/1	0.68	1.07	-	67,67,67,67	0
56	MG	DA	3478	1/1	0.95	0.35	-	90,90,90,90	0
56	MG	DA	3268	1/1	0.90	0.32	-	64,64,64,64	0
56	MG	AA	1851	1/1	0.85	0.14	-	80,80,80,80	0
56	MG	DA	3457	1/1	0.92	0.30	-	102,102,102,102	0
56	MG	CA	1664	1/1	0.59	0.36	-	76,76,76,76	0
56	MG	BA	3536	1/1	0.96	0.15	-	42,42,42,42	0
56	MG	CA	1654	1/1	0.76	0.48	-	74,74,74,74	0
56	MG	CV	108	1/1	0.91	0.29	-	79,79,79,79	0
56	MG	BA	3705	1/1	0.98	0.25	-	79,79,79,79	0
56	MG	DA	3221	1/1	0.90	0.38	-	82,82,82,82	0
56	MG	BA	3287	1/1	0.91	0.24	-	82,82,82,82	0
56	MG	BA	3457	1/1	0.87	0.20	-	59,59,59,59	0
56	MG	BA	3846	1/1	0.98	0.18	-	27,27,27,27	0
56	MG	BA	3343	1/1	0.95	0.26	-	37,37,37,37	0
56	MG	AA	1827	1/1	0.72	0.20	-	69,69,69,69	0
56	MG	BA	3751	1/1	0.95	0.08	-	56,56,56,56	0
56	MG	BA	3427	1/1	0.95	0.22	-	48,48,48,48	0
56	MG	DA	3364	1/1	0.85	0.17	-	94,94,94,94	0
56	MG	BA	3119	1/1	0.94	0.16	-	50,50,50,50	0
56	MG	DB	216	1/1	0.85	0.10	-	109,109,109,109	0
56	MG	BA	3606	1/1	0.98	0.09	-	63,63,63,63	0
56	MG	CA	1709	1/1	0.88	0.66	-	82,82,82,82	0
56	MG	DA	3120	1/1	0.96	0.15	-	42,42,42,42	0
56	MG	DA	3542	1/1	0.96	0.09	-	84,84,84,84	0
56	MG	BA	3295	1/1	0.96	0.23	-	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3500	1/1	0.96	0.10	-	68,68,68,68	0
56	MG	BA	3886	1/1	0.90	0.27	-	94,94,94,94	0
56	MG	CA	1771	1/1	0.97	0.21	-	78,78,78,78	0
56	MG	BA	3564	1/1	0.97	0.10	-	63,63,63,63	0
56	MG	BA	3291	1/1	0.83	0.35	-	61,61,61,61	0
56	MG	AA	1730	1/1	0.95	0.17	-	61,61,61,61	0
56	MG	BA	3195	1/1	0.97	0.35	-	19,19,19,19	0
56	MG	BA	3255	1/1	0.96	0.34	-	16,16,16,16	0
56	MG	DA	3374	1/1	0.92	0.41	-	75,75,75,75	0
56	MG	DA	3140	1/1	0.98	0.52	-	44,44,44,44	0
56	MG	BB	207	1/1	0.96	0.27	-	44,44,44,44	0
56	MG	BA	3244	1/1	0.89	0.40	-	60,60,60,60	0
56	MG	BA	3557	1/1	0.97	0.05	-	62,62,62,62	0
56	MG	AA	1615	1/1	0.92	0.09	-	75,75,75,75	0
56	MG	DF	301	1/1	0.88	0.30	-	71,71,71,71	0
56	MG	DA	3145	1/1	0.94	0.17	-	41,41,41,41	0
56	MG	AV	108	1/1	0.89	0.19	-	98,98,98,98	0
56	MG	CA	1818	1/1	0.67	0.25	-	87,87,87,87	0
56	MG	DA	3474	1/1	0.91	0.11	-	76,76,76,76	0
56	MG	DA	3673	1/1	0.85	0.39	-	111,111,111,111	0
56	MG	BA	3794	1/1	0.96	0.17	-	80,80,80,80	0
56	MG	DA	3339	1/1	0.75	0.34	-	74,74,74,74	0
56	MG	BA	3440	1/1	0.77	0.72	-	56,56,56,56	0
56	MG	CA	1770	1/1	0.74	0.15	-	93,93,93,93	0
56	MG	CA	1768	1/1	0.93	0.24	-	94,94,94,94	0
56	MG	BA	3528	1/1	0.96	0.09	-	71,71,71,71	0
56	MG	DA	3462	1/1	0.93	0.12	-	50,50,50,50	0
56	MG	AA	1633	1/1	0.95	0.49	-	32,32,32,32	0
56	MG	DA	3233	1/1	0.81	0.32	-	80,80,80,80	0
56	MG	DA	3039	1/1	0.91	0.21	-	50,50,50,50	0
56	MG	BA	3327	1/1	0.95	0.25	-	80,80,80,80	0
56	MG	CA	1754	1/1	0.94	0.21	-	70,70,70,70	0
56	MG	DA	3106	1/1	0.94	0.28	-	48,48,48,48	0
56	MG	BB	210	1/1	0.94	0.41	-	53,53,53,53	0
56	MG	BE	304	1/1	0.96	0.44	-	14,14,14,14	0
56	MG	BA	3047	1/1	0.97	0.32	-	32,32,32,32	0
56	MG	BA	3428	1/1	0.91	0.24	-	63,63,63,63	0
56	MG	DA	3010	1/1	0.84	0.23	-	78,78,78,78	0
56	MG	BB	224	1/1	0.92	0.12	-	57,57,57,57	0
56	MG	DA	3254	1/1	0.81	0.36	-	71,71,71,71	0
56	MG	AA	1889	1/1	0.97	0.17	-	71,71,71,71	0
56	MG	BA	3479	1/1	0.81	0.42	-	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3290	1/1	0.86	0.36	-	79,79,79,79	0
56	MG	AA	1618	1/1	0.90	0.30	-	61,61,61,61	0
56	MG	BA	3313	1/1	0.88	0.28	-	66,66,66,66	0
56	MG	BA	3668	1/1	0.93	0.13	-	29,29,29,29	0
56	MG	DA	3379	1/1	0.76	0.41	-	80,80,80,80	0
56	MG	BA	3736	1/1	0.80	0.21	-	59,59,59,59	0
56	MG	AA	1653	1/1	0.89	0.71	-	82,82,82,82	0
56	MG	BA	3596	1/1	0.97	0.06	-	39,39,39,39	0
56	MG	AA	1693	1/1	0.81	0.39	-	103,103,103,103	0
56	MG	AA	1704	1/1	0.85	0.29	-	79,79,79,79	0
56	MG	CA	1772	1/1	0.93	0.11	-	77,77,77,77	0
56	MG	BA	3385	1/1	0.95	0.16	-	58,58,58,58	0
56	MG	BA	3049	1/1	0.89	0.44	-	49,49,49,49	0
56	MG	BA	3772	1/1	0.92	0.10	-	26,26,26,26	0
56	MG	AA	1751	1/1	0.86	0.20	-	74,74,74,74	0
56	MG	AA	1667	1/1	0.75	0.34	-	71,71,71,71	0
56	MG	DA	3195	1/1	0.95	0.17	-	58,58,58,58	0
56	MG	BA	3549	1/1	0.99	0.24	-	19,19,19,19	0
56	MG	BA	3326	1/1	0.92	0.13	-	100,100,100,100	0
56	MG	CA	1721	1/1	0.95	0.10	-	75,75,75,75	0
56	MG	DA	3098	1/1	0.92	0.22	-	39,39,39,39	0
56	MG	DA	3453	1/1	0.95	0.15	-	77,77,77,77	0
56	MG	DB	204	1/1	0.92	0.26	-	107,107,107,107	0
56	MG	CA	1711	1/1	0.91	0.31	-	70,70,70,70	0
56	MG	AA	1898	1/1	0.86	0.13	-	98,98,98,98	0
56	MG	DA	3651	1/1	0.96	0.04	-	61,61,61,61	0
56	MG	DA	3577	1/1	0.98	0.21	-	95,95,95,95	0
56	MG	BA	3158	1/1	0.82	0.40	-	48,48,48,48	0
56	MG	DA	3671	1/1	0.81	0.11	-	92,92,92,92	0
56	MG	BA	3261	1/1	0.93	0.19	-	69,69,69,69	0
56	MG	DB	210	1/1	0.96	0.18	-	91,91,91,91	0
56	MG	CA	1685	1/1	0.84	0.31	-	64,64,64,64	0
56	MG	BA	3422	1/1	0.97	0.07	-	82,82,82,82	0
56	MG	B8	101	1/1	0.97	0.55	-	49,49,49,49	0
56	MG	AA	1746	1/1	0.72	0.36	-	81,81,81,81	0
56	MG	DA	3117	1/1	0.61	0.30	-	70,70,70,70	0
56	MG	BA	3498	1/1	0.89	0.20	-	54,54,54,54	0
56	MG	DA	3063	1/1	0.95	0.45	-	50,50,50,50	0
56	MG	BA	3135	1/1	0.89	0.31	-	58,58,58,58	0
56	MG	DA	3519	1/1	0.59	0.09	-	93,93,93,93	0
56	MG	BA	3452	1/1	0.97	0.33	-	55,55,55,55	0
56	MG	DA	3152	1/1	0.90	0.36	-	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3141	1/1	0.95	0.15	-	38,38,38,38	0
56	MG	DA	3005	1/1	0.80	0.37	-	73,73,73,73	0
56	MG	CA	1624	1/1	0.83	0.25	-	64,64,64,64	0
56	MG	DA	3649	1/1	0.91	0.12	-	73,73,73,73	0
56	MG	BA	3494	1/1	0.87	0.30	-	62,62,62,62	0
56	MG	AA	1701	1/1	0.88	0.28	-	57,57,57,57	0
56	MG	AA	1770	1/1	0.95	0.39	-	76,76,76,76	0
56	MG	BA	3803	1/1	0.92	0.21	-	71,71,71,71	0
56	MG	DA	3139	1/1	0.94	0.45	-	64,64,64,64	0
56	MG	DA	3272	1/1	0.92	0.19	-	68,68,68,68	0
56	MG	BA	3583	1/1	0.98	0.10	-	22,22,22,22	0
56	MG	CA	1698	1/1	0.92	0.72	-	114,114,114,114	0
56	MG	AK	201	1/1	0.66	0.47	-	107,107,107,107	0
56	MG	BA	3720	1/1	0.98	0.17	-	22,22,22,22	0
56	MG	DA	3448	1/1	0.86	0.16	-	73,73,73,73	0
56	MG	BA	3490	1/1	0.89	0.30	-	49,49,49,49	0
56	MG	AA	1789	1/1	0.69	0.37	-	77,77,77,77	0
56	MG	BA	3621	1/1	0.96	0.19	-	30,30,30,30	0
56	MG	DA	3092	1/1	0.89	0.19	-	92,92,92,92	0
56	MG	BA	3070	1/1	0.90	0.42	-	51,51,51,51	0
56	MG	DA	3360	1/1	0.84	0.25	-	61,61,61,61	0
56	MG	BA	3778	1/1	0.78	0.17	-	92,92,92,92	0
56	MG	BA	3456	1/1	0.64	0.42	-	73,73,73,73	0
56	MG	DA	3165	1/1	0.90	0.57	-	65,65,65,65	0
56	MG	DA	3182	1/1	0.88	0.28	-	68,68,68,68	0
56	MG	DA	3149	1/1	0.91	0.17	-	51,51,51,51	0
56	MG	BA	3190	1/1	0.92	0.22	-	42,42,42,42	0
56	MG	AA	1882	1/1	0.96	0.13	-	55,55,55,55	0
56	MG	BA	3435	1/1	0.88	0.14	-	84,84,84,84	0
56	MG	CA	1694	1/1	0.73	0.48	-	80,80,80,80	0
56	MG	DA	3330	1/1	0.91	0.65	-	78,78,78,78	0
56	MG	AV	114	1/1	0.88	0.22	-	67,67,67,67	0
56	MG	BA	3677	1/1	0.98	0.20	-	29,29,29,29	0
56	MG	BA	3024	1/1	0.96	0.27	-	36,36,36,36	0
56	MG	AA	1740	1/1	0.94	0.49	-	72,72,72,72	0
56	MG	BA	3867	1/1	0.93	0.19	-	60,60,60,60	0
56	MG	BA	3738	1/1	0.98	0.36	-	42,42,42,42	0
56	MG	DA	3134	1/1	0.91	0.16	-	61,61,61,61	0
56	MG	AA	1835	1/1	0.98	0.08	-	88,88,88,88	0
56	MG	AA	1627	1/1	0.73	0.67	-	83,83,83,83	0
56	MG	DA	3173	1/1	0.95	0.27	-	62,62,62,62	0
56	MG	BA	3187	1/1	0.89	0.21	-	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3522	1/1	0.92	0.32	-	62,62,62,62	0
56	MG	BF	302	1/1	0.90	0.41	-	41,41,41,41	0
56	MG	BA	3469	1/1	0.89	0.31	-	77,77,77,77	0
56	MG	BA	3025	1/1	0.71	0.50	-	68,68,68,68	0
56	MG	BB	215	1/1	0.94	0.16	-	62,62,62,62	0
56	MG	BA	3102	1/1	0.79	0.16	-	51,51,51,51	0
56	MG	BA	3634	1/1	0.94	0.08	-	46,46,46,46	0
56	MG	BE	303	1/1	0.95	0.18	-	32,32,32,32	0
56	MG	DA	3282	1/1	0.80	0.60	-	75,75,75,75	0
56	MG	BA	3355	1/1	0.95	0.34	-	62,62,62,62	0
56	MG	BA	3797	1/1	0.82	0.21	-	91,91,91,91	0
56	MG	BA	3323	1/1	0.93	0.28	-	45,45,45,45	0
56	MG	CA	1729	1/1	0.96	0.18	-	80,80,80,80	0
56	MG	DA	3575	1/1	0.84	0.11	-	65,65,65,65	0
56	MG	BA	3895	1/1	0.87	0.12	-	78,78,78,78	0
56	MG	BA	3167	1/1	0.94	0.25	-	31,31,31,31	0
56	MG	BA	3143	1/1	0.96	0.32	-	20,20,20,20	0
56	MG	BA	3008	1/1	0.83	0.20	-	84,84,84,84	0
56	MG	BA	3344	1/1	0.90	0.16	-	62,62,62,62	0
56	MG	DA	3383	1/1	0.84	0.44	-	76,76,76,76	0
56	MG	BA	3827	1/1	0.84	0.16	-	77,77,77,77	0
56	MG	BA	3058	1/1	0.93	0.29	-	46,46,46,46	0
56	MG	AA	1812	1/1	0.82	0.33	-	122,122,122,122	0
56	MG	DA	3216	1/1	0.84	0.23	-	46,46,46,46	0
56	MG	AA	1620	1/1	0.63	0.54	-	74,74,74,74	0
56	MG	AA	1929	1/1	0.95	0.15	-	48,48,48,48	0
56	MG	AA	1779	1/1	0.92	0.30	-	60,60,60,60	0
56	MG	AA	1745	1/1	0.97	0.28	-	64,64,64,64	0
56	MG	AA	1689	1/1	0.77	0.18	-	77,77,77,77	0
56	MG	BA	3371	1/1	0.85	0.18	-	66,66,66,66	0
56	MG	DA	3307	1/1	0.84	0.26	-	65,65,65,65	0
56	MG	BA	3336	1/1	0.89	0.26	-	46,46,46,46	0
56	MG	CA	1803	1/1	0.90	0.19	-	102,102,102,102	0
56	MG	DA	3099	1/1	0.98	0.42	-	42,42,42,42	0
56	MG	AA	1948	1/1	0.78	0.10	-	88,88,88,88	0
56	MG	BA	3722	1/1	0.96	0.05	-	61,61,61,61	0
56	MG	CA	1634	1/1	0.98	0.39	-	63,63,63,63	0
56	MG	BA	3305	1/1	0.92	0.16	-	35,35,35,35	0
56	MG	DA	3275	1/1	0.95	0.33	-	42,42,42,42	0
56	MG	BA	3742	1/1	0.69	0.22	-	72,72,72,72	0
56	MG	CA	1755	1/1	0.95	0.17	-	93,93,93,93	0
56	MG	BA	3808	1/1	0.90	0.13	-	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3572	1/1	0.97	0.07	-	66,66,66,66	0
56	MG	AA	1837	1/1	0.85	0.17	-	66,66,66,66	0
56	MG	AA	1737	1/1	0.68	0.42	-	88,88,88,88	0
56	MG	BA	3013	1/1	0.94	0.30	-	57,57,57,57	0
56	MG	BB	226	1/1	0.98	0.07	-	61,61,61,61	0
56	MG	DA	3297	1/1	0.92	0.21	-	81,81,81,81	0
56	MG	DA	3303	1/1	0.86	0.28	-	54,54,54,54	0
56	MG	AA	1825	1/1	0.86	0.28	-	64,64,64,64	0
56	MG	BA	3333	1/1	0.89	0.24	-	58,58,58,58	0
56	MG	AA	1814	1/1	0.93	0.30	-	81,81,81,81	0
56	MG	BA	3074	1/1	0.96	0.15	-	52,52,52,52	0
56	MG	DA	3036	1/1	0.83	0.18	-	57,57,57,57	0
56	MG	BA	3541	1/1	0.98	0.08	-	35,35,35,35	0
56	MG	BA	3773	1/1	0.96	0.07	-	44,44,44,44	0
56	MG	DA	3565	1/1	0.98	0.12	-	50,50,50,50	0
56	MG	DA	3570	1/1	0.80	0.22	-	79,79,79,79	0
56	MG	CA	1666	1/1	0.72	0.28	-	73,73,73,73	0
56	MG	DA	3201	1/1	0.90	0.58	-	80,80,80,80	0
56	MG	DA	3034	1/1	0.89	0.44	-	77,77,77,77	0
56	MG	DA	3206	1/1	0.82	0.17	-	92,92,92,92	0
56	MG	DA	3071	1/1	0.96	0.38	-	44,44,44,44	0
56	MG	BA	3487	1/1	0.91	0.20	-	53,53,53,53	0
56	MG	CA	1749	1/1	0.90	0.21	-	92,92,92,92	0
56	MG	BA	3147	1/1	0.87	0.14	-	54,54,54,54	0
56	MG	DA	3241	1/1	0.94	0.13	-	76,76,76,76	0
56	MG	DA	3595	1/1	0.97	0.14	-	43,43,43,43	0
56	MG	DA	3476	1/1	0.93	0.17	-	71,71,71,71	0
56	MG	DA	3659	1/1	0.89	0.22	-	77,77,77,77	0
56	MG	BA	3622	1/1	0.97	0.16	-	65,65,65,65	0
56	MG	BA	3502	1/1	0.97	0.27	-	33,33,33,33	0
56	MG	AA	1833	1/1	0.84	0.19	-	70,70,70,70	0
56	MG	BA	3518	1/1	0.96	0.24	-	33,33,33,33	0
56	MG	AA	1696	1/1	0.90	0.53	-	95,95,95,95	0
56	MG	BA	3496	1/1	0.94	0.25	-	61,61,61,61	0
56	MG	DR	201	1/1	0.95	0.23	-	44,44,44,44	0
56	MG	BA	3763	1/1	0.74	0.10	-	84,84,84,84	0
56	MG	BA	3016	1/1	0.95	0.43	-	52,52,52,52	0
56	MG	BA	3310	1/1	0.89	0.27	-	54,54,54,54	0
56	MG	BA	3140	1/1	0.87	0.24	-	53,53,53,53	0
56	MG	BA	3663	1/1	0.86	0.16	-	21,21,21,21	0
56	MG	AA	1759	1/1	0.92	0.30	-	60,60,60,60	0
56	MG	AA	1610	1/1	0.91	0.40	-	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3551	1/1	0.99	0.03	-	68,68,68,68	0
56	MG	BA	3866	1/1	0.86	0.07	-	82,82,82,82	0
56	MG	AA	1688	1/1	0.89	0.11	-	96,96,96,96	0
56	MG	BA	3535	1/1	0.87	0.15	-	68,68,68,68	0
56	MG	DA	3656	1/1	0.90	0.08	-	90,90,90,90	0
56	MG	BA	3714	1/1	0.94	0.30	-	62,62,62,62	0
56	MG	B5	102	1/1	0.95	0.18	-	58,58,58,58	0
56	MG	BA	3425	1/1	0.92	0.30	-	46,46,46,46	0
56	MG	BA	3741	1/1	0.90	0.12	-	63,63,63,63	0
56	MG	DA	3035	1/1	0.82	0.20	-	76,76,76,76	0
56	MG	BA	3292	1/1	0.93	0.15	-	47,47,47,47	0
56	MG	BA	3186	1/1	0.95	0.46	-	27,27,27,27	0
56	MG	DA	3669	1/1	0.93	0.10	-	93,93,93,93	0
56	MG	CV	106	1/1	0.71	0.36	-	78,78,78,78	0
56	MG	BA	3475	1/1	0.94	0.21	-	42,42,42,42	0
56	MG	BA	3740	1/1	0.94	0.17	-	48,48,48,48	0
56	MG	DA	3494	1/1	0.98	0.19	-	70,70,70,70	0
56	MG	DA	3355	1/1	0.85	0.26	-	55,55,55,55	0
56	MG	AA	1813	1/1	0.90	0.13	-	121,121,121,121	0
56	MG	BA	3176	1/1	0.92	0.15	-	63,63,63,63	0
56	MG	AA	1901	1/1	0.53	0.17	-	119,119,119,119	0
56	MG	AA	1792	1/1	0.95	0.17	-	44,44,44,44	0
56	MG	DA	3633	1/1	0.97	0.26	-	62,62,62,62	0
56	MG	DA	3579	1/1	0.85	0.20	-	104,104,104,104	0
56	MG	AA	1903	1/1	0.87	0.19	-	117,117,117,117	0
56	MG	BA	3246	1/1	0.88	0.45	-	53,53,53,53	0
56	MG	DA	3549	1/1	0.87	0.18	-	87,87,87,87	0
56	MG	CA	1776	1/1	0.92	0.54	-	90,90,90,90	0
56	MG	AA	1936	1/1	0.97	0.18	-	84,84,84,84	0
56	MG	BA	3659	1/1	0.97	0.18	-	60,60,60,60	0
56	MG	BA	3373	1/1	0.73	0.39	-	69,69,69,69	0
56	MG	BB	212	1/1	0.89	0.27	-	62,62,62,62	0
56	MG	DA	3104	1/1	0.94	0.43	-	60,60,60,60	0
56	MG	DA	3147	1/1	0.92	0.30	-	70,70,70,70	0
56	MG	BA	3569	1/1	0.97	0.24	-	49,49,49,49	0
56	MG	BA	3504	1/1	0.93	0.23	-	57,57,57,57	0
56	MG	BA	3524	1/1	0.79	0.17	-	81,81,81,81	0
56	MG	BA	3152	1/1	0.91	0.11	-	42,42,42,42	0
56	MG	DA	3404	1/1	0.99	0.11	-	56,56,56,56	0
56	MG	BA	3088	1/1	0.96	0.27	-	45,45,45,45	0
56	MG	BA	3464	1/1	0.91	0.34	-	53,53,53,53	0
56	MG	DA	3122	1/1	0.82	0.71	-	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3481	1/1	0.94	0.38	-	85,85,85,85	0
56	MG	DA	3488	1/1	0.95	0.70	-	73,73,73,73	0
56	MG	AA	1781	1/1	0.90	0.49	-	68,68,68,68	0
56	MG	DA	3263	1/1	0.90	0.30	-	67,67,67,67	0
56	MG	BA	3462	1/1	0.96	0.34	-	47,47,47,47	0
56	MG	BA	3814	1/1	0.96	0.27	-	86,86,86,86	0
56	MG	BA	3101	1/1	0.98	0.34	-	26,26,26,26	0
56	MG	AA	1715	1/1	0.63	0.46	-	72,72,72,72	0
56	MG	BA	3852	1/1	0.97	0.22	-	59,59,59,59	0
56	MG	CA	1661	1/1	0.63	0.15	-	101,101,101,101	0
56	MG	DA	3088	1/1	0.87	0.30	-	73,73,73,73	0
56	MG	DA	3132	1/1	0.94	0.17	-	66,66,66,66	0
56	MG	BA	3699	1/1	0.98	0.14	-	38,38,38,38	0
56	MG	AA	1871	1/1	0.97	0.07	-	71,71,71,71	0
56	MG	BA	3302	1/1	0.92	0.22	-	53,53,53,53	0
56	MG	DA	3689	1/1	0.90	0.20	-	104,104,104,104	0
56	MG	DA	3332	1/1	0.85	0.39	-	63,63,63,63	0
56	MG	AA	1661	1/1	0.92	0.40	-	56,56,56,56	0
56	MG	BA	3421	1/1	0.90	0.29	-	75,75,75,75	0
56	MG	BA	3802	1/1	0.93	0.20	-	71,71,71,71	0
56	MG	BA	3171	1/1	0.97	0.36	-	38,38,38,38	0
56	MG	BA	3369	1/1	0.97	0.43	-	65,65,65,65	0
56	MG	DA	3295	1/1	0.84	0.11	-	75,75,75,75	0
56	MG	DA	3590	1/1	0.84	0.29	-	89,89,89,89	0
56	MG	AA	1891	1/1	0.96	0.05	-	75,75,75,75	0
56	MG	BA	3003	1/1	0.97	0.11	-	59,59,59,59	0
56	MG	BA	3198	1/1	0.97	0.21	-	17,17,17,17	0
56	MG	DA	3324	1/1	0.95	0.14	-	55,55,55,55	0
56	MG	BA	3600	1/1	0.98	0.26	-	36,36,36,36	0
56	MG	BA	3546	1/1	0.98	0.07	-	48,48,48,48	0
56	MG	BA	3653	1/1	0.97	0.17	-	38,38,38,38	0
56	MG	DA	3289	1/1	0.80	0.18	-	86,86,86,86	0
56	MG	CA	1816	1/1	0.77	0.25	-	110,110,110,110	0
56	MG	BA	3357	1/1	0.91	0.24	-	82,82,82,82	0
56	MG	CA	1794	1/1	0.99	0.13	-	59,59,59,59	0
56	MG	BA	3598	1/1	0.96	0.04	-	54,54,54,54	0
56	MG	BA	3201	1/1	0.88	0.28	-	54,54,54,54	0
56	MG	AA	1860	1/1	0.97	0.11	-	85,85,85,85	0
56	MG	BA	3612	1/1	0.94	0.08	-	61,61,61,61	0
56	MG	BD	305	1/1	0.94	0.39	-	54,54,54,54	0
56	MG	DA	3467	1/1	0.93	0.17	-	91,91,91,91	0
56	MG	DA	3418	1/1	0.95	0.34	-	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AV	102	1/1	0.91	0.19	-	66,66,66,66	0
56	MG	BA	3289	1/1	0.96	0.23	-	61,61,61,61	0
56	MG	DA	3161	1/1	0.98	0.20	-	45,45,45,45	0
56	MG	BA	3219	1/1	0.95	0.43	-	43,43,43,43	0
56	MG	DA	3356	1/1	0.88	0.15	-	85,85,85,85	0
56	MG	DA	3505	1/1	0.94	0.16	-	81,81,81,81	0
56	MG	DA	3352	1/1	0.91	0.41	-	68,68,68,68	0
56	MG	DA	3680	1/1	0.97	0.09	-	79,79,79,79	0
56	MG	DA	3610	1/1	0.75	0.26	-	97,97,97,97	0
56	MG	CA	1702	1/1	0.79	0.34	-	114,114,114,114	0
56	MG	CA	1763	1/1	0.98	0.09	-	62,62,62,62	0
56	MG	CA	1676	1/1	0.80	0.17	-	83,83,83,83	0
56	MG	DA	3373	1/1	0.94	0.35	-	75,75,75,75	0
56	MG	DA	3423	1/1	0.97	0.26	-	45,45,45,45	0
56	MG	DA	3635	1/1	0.97	0.17	-	88,88,88,88	0
56	MG	BA	3089	1/1	0.82	0.43	-	54,54,54,54	0
56	MG	BA	3109	1/1	0.89	0.24	-	58,58,58,58	0
56	MG	AA	1724	1/1	0.72	0.36	-	92,92,92,92	0
56	MG	AV	105	1/1	0.93	0.20	-	64,64,64,64	0
56	MG	BA	3792	1/1	0.85	0.20	-	48,48,48,48	0
56	MG	BA	3177	1/1	0.96	0.22	-	46,46,46,46	0
56	MG	DA	3066	1/1	0.91	0.55	-	68,68,68,68	0
56	MG	BA	3446	1/1	0.74	0.23	-	87,87,87,87	0
56	MG	CA	1648	1/1	0.83	0.20	-	73,73,73,73	0
56	MG	CA	1793	1/1	0.86	0.26	-	73,73,73,73	0
56	MG	AV	115	1/1	0.92	0.20	-	65,65,65,65	0
56	MG	DA	3238	1/1	0.72	0.30	-	65,65,65,65	0
56	MG	BA	3650	1/1	0.96	0.09	-	46,46,46,46	0
56	MG	CA	1809	1/1	0.89	0.09	-	101,101,101,101	0
56	MG	DA	3605	1/1	0.95	0.21	-	101,101,101,101	0
56	MG	AA	1880	1/1	0.85	0.41	-	79,79,79,79	0
56	MG	DA	3602	1/1	0.98	0.19	-	47,47,47,47	0
56	MG	DA	3562	1/1	0.97	0.26	-	69,69,69,69	0
56	MG	DA	3520	1/1	0.94	0.06	-	67,67,67,67	0
56	MG	BA	3787	1/1	0.95	0.06	-	35,35,35,35	0
56	MG	DA	3203	1/1	0.71	0.32	-	91,91,91,91	0
56	MG	AA	1774	1/1	0.86	0.29	-	69,69,69,69	0
56	MG	AA	1794	1/1	0.86	0.52	-	68,68,68,68	0
56	MG	DA	3483	1/1	0.88	0.16	-	84,84,84,84	0
56	MG	BA	3022	1/1	0.92	0.12	-	85,85,85,85	0
56	MG	DA	3468	1/1	0.87	0.08	-	80,80,80,80	0
56	MG	BB	221	1/1	0.97	0.10	-	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BO	201	1/1	0.80	0.33	-	62,62,62,62	0
56	MG	DA	3620	1/1	0.86	0.28	-	95,95,95,95	0
56	MG	DA	3361	1/1	0.96	0.20	-	60,60,60,60	0
56	MG	AA	1855	1/1	0.96	0.18	-	80,80,80,80	0
56	MG	DA	3521	1/1	0.98	0.51	-	60,60,60,60	0
56	MG	DA	3626	1/1	0.93	0.25	-	103,103,103,103	0
56	MG	DA	3171	1/1	0.90	0.25	-	66,66,66,66	0
56	MG	BA	3309	1/1	0.76	0.47	-	56,56,56,56	0
56	MG	CA	1740	1/1	0.88	0.16	-	73,73,73,73	0
56	MG	BA	3881	1/1	0.93	0.10	-	75,75,75,75	0
56	MG	AV	109	1/1	0.95	0.19	-	81,81,81,81	0
56	MG	DA	3413	1/1	0.97	0.29	-	40,40,40,40	0
56	MG	BA	3214	1/1	0.89	0.14	-	49,49,49,49	0
56	MG	AA	1829	1/1	0.91	0.17	-	63,63,63,63	0
56	MG	CA	1668	1/1	0.93	0.13	-	59,59,59,59	0
56	MG	DA	3177	1/1	0.91	0.46	-	75,75,75,75	0
56	MG	AA	1890	1/1	0.90	0.19	-	89,89,89,89	0
56	MG	DA	3329	1/1	0.83	0.46	-	63,63,63,63	0
56	MG	AA	1853	1/1	0.94	0.20	-	93,93,93,93	0
56	MG	CA	1767	1/1	0.86	0.25	-	62,62,62,62	0
56	MG	BA	3514	1/1	0.86	0.27	-	58,58,58,58	0
56	MG	AA	1716	1/1	0.95	0.14	-	70,70,70,70	0
56	MG	DA	3654	1/1	0.50	0.41	-	118,118,118,118	0
56	MG	CA	1629	1/1	0.84	0.74	-	74,74,74,74	0
56	MG	B3	102	1/1	0.89	0.28	-	56,56,56,56	0
56	MG	BA	3280	1/1	0.80	0.31	-	58,58,58,58	0
56	MG	BA	3153	1/1	0.94	0.20	-	56,56,56,56	0
56	MG	BA	3708	1/1	0.87	0.07	-	85,85,85,85	0
56	MG	BA	3511	1/1	0.92	0.35	-	48,48,48,48	0
56	MG	AA	1764	1/1	0.90	0.28	-	72,72,72,72	0
56	MG	DA	3020	1/1	0.93	0.44	-	75,75,75,75	0
56	MG	DA	3668	1/1	0.91	0.17	-	100,100,100,100	0
56	MG	DA	3118	1/1	0.92	0.24	-	50,50,50,50	0
56	MG	BA	3407	1/1	0.87	0.22	-	44,44,44,44	0
56	MG	BA	3607	1/1	0.96	0.29	-	59,59,59,59	0
56	MG	AA	1807	1/1	0.77	0.36	-	84,84,84,84	0
56	MG	AA	1743	1/1	0.78	0.53	-	80,80,80,80	0
56	MG	BA	3358	1/1	0.90	0.80	-	63,63,63,63	0
56	MG	DA	3090	1/1	0.92	0.52	-	76,76,76,76	0
56	MG	DA	3267	1/1	0.83	0.46	-	66,66,66,66	0
56	MG	BA	3412	1/1	0.93	0.21	-	56,56,56,56	0
56	MG	AA	1703	1/1	0.85	0.34	-	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3382	1/1	0.86	0.70	-	72,72,72,72	0
56	MG	DA	3163	1/1	0.88	0.64	-	68,68,68,68	0
56	MG	BA	3681	1/1	0.97	0.14	-	52,52,52,52	0
56	MG	BA	3245	1/1	0.96	0.33	-	42,42,42,42	0
56	MG	CA	1741	1/1	0.88	0.06	-	92,92,92,92	0
56	MG	AA	1793	1/1	0.83	0.25	-	72,72,72,72	0
56	MG	BA	3286	1/1	0.96	0.17	-	61,61,61,61	0
56	MG	DA	3084	1/1	0.85	0.33	-	76,76,76,76	0
56	MG	BA	3642	1/1	0.93	0.07	-	78,78,78,78	0
56	MG	AA	1727	1/1	0.95	0.48	-	73,73,73,73	0
56	MG	BA	3391	1/1	0.94	0.25	-	27,27,27,27	0
56	MG	BA	3480	1/1	0.92	0.31	-	59,59,59,59	0
56	MG	BA	3288	1/1	0.89	0.12	-	77,77,77,77	0
56	MG	BA	3727	1/1	0.96	0.12	-	66,66,66,66	0
56	MG	BA	3318	1/1	0.94	0.16	-	63,63,63,63	0
56	MG	BA	3542	1/1	0.83	0.14	-	79,79,79,79	0
56	MG	DA	3566	1/1	0.85	0.18	-	84,84,84,84	0
56	MG	AA	1736	1/1	0.72	0.52	-	82,82,82,82	0
56	MG	DA	3609	1/1	0.89	0.25	-	75,75,75,75	0
56	MG	BA	3347	1/1	0.99	0.48	-	20,20,20,20	0
56	MG	AA	1748	1/1	0.96	0.16	-	90,90,90,90	0
56	MG	BA	3149	1/1	0.92	0.21	-	35,35,35,35	0
56	MG	DA	3334	1/1	0.85	0.34	-	83,83,83,83	0
56	MG	DA	3114	1/1	0.87	0.19	-	70,70,70,70	0
56	MG	CA	1719	1/1	0.94	0.23	-	85,85,85,85	0
56	MG	DA	3055	1/1	0.83	0.25	-	57,57,57,57	0
56	MG	AA	1638	1/1	0.86	0.31	-	78,78,78,78	0
56	MG	BA	3625	1/1	0.95	0.10	-	41,41,41,41	0
56	MG	DA	3409	1/1	0.98	0.07	-	64,64,64,64	0
56	MG	DA	3574	1/1	0.96	0.14	-	53,53,53,53	0
56	MG	DA	3224	1/1	0.68	0.46	-	75,75,75,75	0
56	MG	DT	202	1/1	0.93	0.18	-	38,38,38,38	0
56	MG	AA	1863	1/1	0.96	0.26	-	54,54,54,54	0
56	MG	BA	3441	1/1	0.94	0.32	-	47,47,47,47	0
56	MG	DA	3359	1/1	0.86	0.16	-	59,59,59,59	0
56	MG	DA	3261	1/1	0.92	0.31	-	69,69,69,69	0
56	MG	CA	1739	1/1	0.95	0.19	-	79,79,79,79	0
56	MG	BA	3780	1/1	0.83	0.25	-	86,86,86,86	0
56	MG	BA	3470	1/1	0.96	0.28	-	52,52,52,52	0
56	MG	DA	3394	1/1	0.95	0.10	-	36,36,36,36	0
56	MG	DA	3631	1/1	0.90	0.30	-	94,94,94,94	0
56	MG	AA	1856	1/1	0.93	0.11	-	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BR	202	1/1	0.95	0.28	-	30,30,30,30	0
56	MG	CA	1727	1/1	0.89	0.22	-	74,74,74,74	0
56	MG	AA	1684	1/1	0.95	0.18	-	102,102,102,102	0
56	MG	AA	1805	1/1	0.91	0.84	-	89,89,89,89	0
56	MG	BA	3755	1/1	1.00	0.10	-	40,40,40,40	0
56	MG	BA	3592	1/1	0.92	0.08	-	52,52,52,52	0
56	MG	AA	1668	1/1	0.72	0.35	-	65,65,65,65	0
56	MG	CA	1786	1/1	0.91	0.13	-	80,80,80,80	0
56	MG	AV	112	1/1	0.73	0.38	-	79,79,79,79	0
56	MG	BA	3196	1/1	0.91	0.14	-	66,66,66,66	0
56	MG	BA	3350	1/1	0.83	0.20	-	69,69,69,69	0
56	MG	BA	3260	1/1	0.89	0.27	-	60,60,60,60	0
56	MG	DA	3480	1/1	0.86	0.20	-	70,70,70,70	0
56	MG	BA	3378	1/1	0.91	0.20	-	40,40,40,40	0
56	MG	BA	3279	1/1	0.95	0.11	-	50,50,50,50	0
56	MG	DA	3471	1/1	0.94	0.08	-	87,87,87,87	0
56	MG	CA	1730	1/1	0.95	0.35	-	69,69,69,69	0
56	MG	DA	3516	1/1	0.95	0.17	-	50,50,50,50	0
56	MG	AA	1662	1/1	0.84	0.47	-	71,71,71,71	0
56	MG	DA	3559	1/1	0.97	0.13	-	76,76,76,76	0
56	MG	BA	3083	1/1	0.93	0.18	-	48,48,48,48	0
56	MG	AA	1761	1/1	0.89	0.31	-	58,58,58,58	0
56	MG	BA	3848	1/1	0.91	0.20	-	43,43,43,43	0
56	MG	BA	3405	1/1	0.87	0.41	-	62,62,62,62	0
56	MG	BA	3081	1/1	0.84	0.22	-	53,53,53,53	0
56	MG	BA	3489	1/1	0.96	0.13	-	55,55,55,55	0
56	MG	BA	3739	1/1	0.97	0.07	-	42,42,42,42	0
56	MG	CA	1703	1/1	0.61	0.34	-	100,100,100,100	0
56	MG	AA	1939	1/1	0.70	0.34	-	105,105,105,105	0
56	MG	BA	3249	1/1	0.98	0.29	-	24,24,24,24	0
56	MG	DA	3580	1/1	0.90	0.11	-	76,76,76,76	0
56	MG	BA	3020	1/1	0.91	0.14	-	44,44,44,44	0
56	MG	CA	1632	1/1	0.83	0.39	-	77,77,77,77	0
56	MG	BA	3815	1/1	0.89	0.10	-	51,51,51,51	0
56	MG	DA	3432	1/1	0.69	0.14	-	85,85,85,85	0
56	MG	DA	3151	1/1	0.97	0.22	-	45,45,45,45	0
56	MG	BA	3644	1/1	0.94	0.11	-	72,72,72,72	0
56	MG	BA	3320	1/1	0.97	0.32	-	58,58,58,58	0
56	MG	DA	3670	1/1	0.91	0.11	-	83,83,83,83	0
56	MG	CX	101	1/1	0.85	0.25	-	99,99,99,99	0
56	MG	BA	3397	1/1	0.70	0.36	-	66,66,66,66	0
56	MG	DA	3449	1/1	0.98	0.27	-	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	AA	1867	1/1	0.64	1.13	-	80,80,80,80	0
56	MG	DA	3049	1/1	0.94	0.17	-	76,76,76,76	0
56	MG	BA	3300	1/1	0.81	0.12	-	70,70,70,70	0
56	MG	BA	3346	1/1	0.78	0.26	-	43,43,43,43	0
56	MG	AA	1658	1/1	0.79	0.78	-	73,73,73,73	0
56	MG	CA	1805	1/1	0.97	0.13	-	88,88,88,88	0
56	MG	DA	3344	1/1	0.85	0.34	-	88,88,88,88	0
56	MG	DA	3622	1/1	0.93	0.19	-	74,74,74,74	0
56	MG	BA	3744	1/1	0.90	0.43	-	44,44,44,44	0
56	MG	DA	3592	1/1	0.96	0.13	-	69,69,69,69	0
56	MG	BA	3628	1/1	0.93	0.14	-	66,66,66,66	0
56	MG	BA	3647	1/1	0.94	0.13	-	61,61,61,61	0
56	MG	AA	1695	1/1	0.67	0.22	-	102,102,102,102	0
56	MG	BA	3580	1/1	0.93	0.10	-	68,68,68,68	0
56	MG	DA	3213	1/1	0.82	0.40	-	89,89,89,89	0
56	MG	DA	3650	1/1	0.98	0.16	-	43,43,43,43	0
56	MG	DA	3176	1/1	0.91	0.28	-	67,67,67,67	0
56	MG	DA	3298	1/1	0.92	0.23	-	55,55,55,55	0
56	MG	AV	117	1/1	0.92	0.10	-	69,69,69,69	0
56	MG	BA	3099	1/1	0.92	0.21	-	32,32,32,32	0
56	MG	AA	1820	1/1	0.83	0.28	-	86,86,86,86	0
56	MG	DA	3215	1/1	0.98	0.60	-	46,46,46,46	0
56	MG	AA	1819	1/1	0.77	0.61	-	91,91,91,91	0
56	MG	DA	3003	1/1	0.90	0.20	-	43,43,43,43	0
56	MG	CA	1797	1/1	0.52	0.40	-	121,121,121,121	0
56	MG	DX	101	1/1	0.89	0.24	-	55,55,55,55	0
56	MG	CA	1670	1/1	0.97	0.18	-	69,69,69,69	0
56	MG	BA	3561	1/1	0.94	0.14	-	64,64,64,64	0
56	MG	BA	3495	1/1	0.93	0.54	-	56,56,56,56	0
56	MG	DA	3292	1/1	0.85	0.24	-	69,69,69,69	0
56	MG	BA	3222	1/1	0.97	0.37	-	28,28,28,28	0
56	MG	BA	3876	1/1	0.99	0.09	-	54,54,54,54	0
56	MG	DA	3278	1/1	0.49	0.60	-	66,66,66,66	0
56	MG	DA	3623	1/1	0.85	0.30	-	85,85,85,85	0
56	MG	BA	3649	1/1	0.91	0.12	-	60,60,60,60	0
56	MG	DA	3514	1/1	0.94	0.20	-	76,76,76,76	0
56	MG	BA	3093	1/1	0.97	0.12	-	42,42,42,42	0
56	MG	DA	3696	1/1	0.81	0.23	-	96,96,96,96	0
56	MG	BA	3160	1/1	0.96	0.43	-	41,41,41,41	0
56	MG	AA	1881	1/1	0.96	0.15	-	50,50,50,50	0
56	MG	DA	3338	1/1	0.84	0.46	-	69,69,69,69	0
56	MG	DA	3150	1/1	0.90	0.10	-	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	DA	3479	1/1	0.94	0.12	-	68,68,68,68	0
56	MG	DA	3458	1/1	0.99	0.12	-	49,49,49,49	0
56	MG	DA	3509	1/1	0.53	0.29	-	122,122,122,122	0
56	MG	BY	203	1/1	0.89	0.57	-	65,65,65,65	0
56	MG	BA	3387	1/1	0.96	0.16	-	48,48,48,48	0
56	MG	AA	1705	1/1	0.93	0.19	-	55,55,55,55	0
56	MG	DA	3053	1/1	0.94	0.16	-	55,55,55,55	0
56	MG	BA	3858	1/1	0.83	0.26	-	70,70,70,70	0
56	MG	DA	3265	1/1	0.69	0.39	-	68,68,68,68	0
56	MG	BA	3311	1/1	0.92	0.19	-	59,59,59,59	0
56	MG	B1	103	1/1	0.98	0.22	-	36,36,36,36	0
56	MG	DA	3070	1/1	0.94	0.14	-	74,74,74,74	0
56	MG	DA	3316	1/1	0.84	0.13	-	80,80,80,80	0
56	MG	BA	3889	1/1	0.95	0.17	-	80,80,80,80	0
56	MG	B8	102	1/1	0.99	0.14	-	49,49,49,49	0
56	MG	DA	3686	1/1	0.99	0.23	-	74,74,74,74	0
56	MG	CA	1660	1/1	0.96	0.23	-	92,92,92,92	0
56	MG	AA	1788	1/1	0.79	0.47	-	62,62,62,62	0
56	MG	BA	3466	1/1	0.91	0.32	-	50,50,50,50	0
56	MG	DA	3202	1/1	0.76	0.20	-	73,73,73,73	0
56	MG	BA	3566	1/1	0.97	0.05	-	54,54,54,54	0
56	MG	AA	1944	1/1	0.70	0.27	-	97,97,97,97	0
56	MG	BA	3562	1/1	0.96	0.21	-	53,53,53,53	0
56	MG	DA	3662	1/1	0.84	0.09	-	53,53,53,53	0
56	MG	DA	3014	1/1	0.98	0.21	-	38,38,38,38	0
56	MG	DA	3083	1/1	0.73	0.41	-	82,82,82,82	0
56	MG	BA	3392	1/1	0.89	0.24	-	54,54,54,54	0
56	MG	BA	3833	1/1	0.98	0.12	-	41,41,41,41	0
56	MG	AA	1858	1/1	0.98	0.04	-	90,90,90,90	0
56	MG	BA	3683	1/1	0.92	0.17	-	31,31,31,31	0
56	MG	BA	3328	1/1	0.92	0.10	-	68,68,68,68	0
56	MG	BA	3394	1/1	0.89	0.30	-	58,58,58,58	0
56	MG	BA	3556	1/1	0.95	0.22	-	52,52,52,52	0
56	MG	DA	3378	1/1	0.79	0.32	-	64,64,64,64	0
56	MG	DA	3612	1/1	0.87	0.20	-	87,87,87,87	0
56	MG	BA	3729	1/1	0.98	0.09	-	59,59,59,59	0
56	MG	DA	3618	1/1	0.84	0.20	-	80,80,80,80	0
56	MG	CA	1790	1/1	0.96	0.30	-	64,64,64,64	0
56	MG	BA	3307	1/1	0.87	0.30	-	48,48,48,48	0
56	MG	DA	3255	1/1	0.75	0.24	-	72,72,72,72	0
56	MG	BA	3821	1/1	0.93	0.09	-	76,76,76,76	0
56	MG	BA	3096	1/1	0.96	0.13	-	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	MG	BA	3215	1/1	0.96	0.40	-	16,16,16,16	0
56	MG	DA	3647	1/1	0.94	0.20	-	70,70,70,70	0
56	MG	AA	1925	1/1	0.82	0.10	-	86,86,86,86	0
56	MG	DA	3095	1/1	0.94	0.37	-	41,41,41,41	0
56	MG	DA	3188	1/1	0.85	0.49	-	77,77,77,77	0
56	MG	DA	3400	1/1	0.85	0.28	-	53,53,53,53	0
56	MG	AA	1893	1/1	0.68	0.32	-	95,95,95,95	0
56	MG	BA	3454	1/1	0.91	0.24	-	58,58,58,58	0
56	MG	AA	1815	1/1	0.75	0.52	-	69,69,69,69	0
56	MG	DA	3214	1/1	0.80	0.30	-	64,64,64,64	0
56	MG	AA	1844	1/1	0.81	0.35	-	86,86,86,86	0
56	MG	DA	3006	1/1	0.97	0.19	-	56,56,56,56	0
56	MG	DA	3107	1/1	0.90	0.21	-	58,58,58,58	0
56	MG	BA	3558	1/1	0.91	0.14	-	61,61,61,61	0
56	MG	BA	3104	1/1	0.77	0.26	-	50,50,50,50	0
56	MG	BB	211	1/1	0.71	0.20	-	66,66,66,66	0
56	MG	DA	3639	1/1	0.94	0.10	-	82,82,82,82	0
56	MG	DA	3222	1/1	0.92	0.52	-	73,73,73,73	0

6.5 Other polymers [i](#)

There are no such residues in this entry.