



## Full wwPDB EM Validation Report ⓘ

Dec 12, 2022 – 03:44 PM EST

PDB ID : 3J3V  
EMDB ID : EMD-5642  
Title : Atomic model of the immature 50S subunit from *Bacillus subtilis* (state I-a)  
Authors : Li, N.; Guo, Q.; Zhang, Y.; Yuan, Y.; Ma, C.; Lei, J.; Gao, N.  
Deposited on : 2013-04-28  
Resolution : 13.30 Å (reported)  
Based on initial models : 2J01, 2AW4

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

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>  
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev43  
MolProbity : 4.02b-467  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
MapQ : 1.9.9  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.31.2

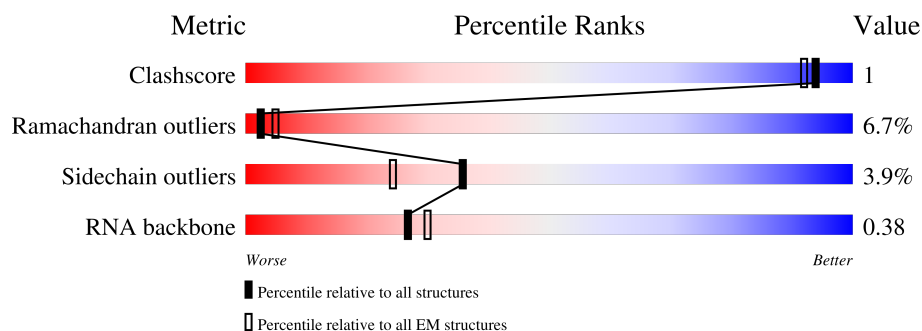
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 13.30 Å.

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















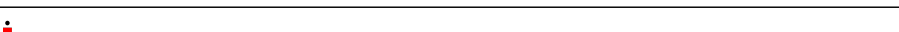



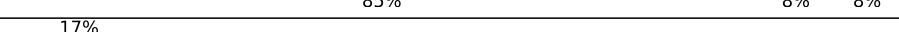
Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826
RNA backbone	4643	859

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

Mol	Chain	Length	Quality of chain
1	0	59	<div> <div>5%</div> <div>86%</div> <div>7%</div> <div>7%</div> </div>
2	2	44	<div> <div>93%</div> <div>7%</div> </div>
3	5	232	<div> <div>18%</div> <div>44%</div> <div>7%</div> <div>48%</div> </div>
4	6	141	<div> <div>77%</div> <div>94%</div> <div>6%</div> </div>
5	A	2927	<div> <div>53%</div> <div>36%</div> <div>9%</div> </div>
6	B	119	<div> <div>7%</div> <div>66%</div> <div>25%</div> <div>8%</div> </div>
7	C	277	<div> <div>90%</div> <div>9%</div> </div>

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Mol	Chain	Length	Quality of chain
8	D	209	 89% 9% ..
9	E	207	 86% 12% .
10	F	179	 11% 86% 13% .
11	G	179	 7% 87% . 9%
12	J	145	 86% 11% ..
13	K	122	 93% 7%
14	L	146	 85% 12% .
15	N	120	 94% 6%
16	O	120	 5% 83% 15% .
17	P	115	 73% 20% . .
18	Q	119	 94% . . .
19	R	102	 88% 11% .
20	S	113	 93% 5% ..
21	T	95	 86% 12% .
22	U	103	 84% 15% .
23	X	66	 85% 8% 8%
24	Y	59	 17% 92% . 5%

## 2 Entry composition

There are 24 unique types of molecules in this entry. The entry contains 86157 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	0	55	Total	C	N	O	S	0	0
			433	267	87	72	7		

- Molecule 2 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	2	44	Total	C	N	O	S	0	0
			368	222	89	55	2		

- Molecule 3 is a protein called 50S ribosomal protein L1.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	5	120	Total	C	N	O	S	0	0
			910	576	156	176	2		

- Molecule 4 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	6	141	Total	C	N	O	S	0	0
			1044	657	184	196	7		

- Molecule 5 is a RNA chain called ribosome RNA 23S.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	A	2884	Total	C	N	O	P	0	0
			61914	27625	11428	19979	2882		

- Molecule 6 is a RNA chain called ribosome RNA 5S.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	B	119	Total	C	N	O	P	0	0
			2542	1135	462	827	118		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
7	C	277	Total	C	N	O	S	0	0
			2129	1323	419	380	7		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
8	D	206	Total	C	N	O	S	0	0
			1568	984	289	290	5		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
9	E	206	Total	C	N	O	S	0	0
			1567	983	290	292	2		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
10	F	179	Total	C	N	O	S	0	0
			1413	898	246	261	8		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
11	G	163	Total	C	N	O	S	0	0
			1246	776	226	242	2		

- Molecule 12 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	J	143	Total	C	N	O	S	0	0
			1134	717	207	204	6		

- Molecule 13 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	K	122	Total	C	N	O	S	0	0
			921	571	173	173	4		

- Molecule 14 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	L	146	Total	C	N	O	S	0	0
			1082	671	207	202	2		

- Molecule 15 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	N	120	Total	C	N	O	S	0	0
			962	588	187	182	5		

- Molecule 16 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	O	120	Total	C	N	O	S	0	0
			913	564	176	172	1		

- Molecule 17 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms				AltConf	Trace
17	P	112	Total	C	N	O	0	0
			916	584	178	154		

- Molecule 18 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	Q	117	Total	C	N	O	S	0	0
			940	591	189	156	4		

- Molecule 19 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	R	102	Total	C	N	O	S	0	0
			795	506	140	148	1		

- Molecule 20 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	S	112	Total	C	N	O	S	0	0
			868	541	168	155	4		

- Molecule 21 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	T	95	Total	C	N	O	S	0	0
			767	480	139	144	4		

- Molecule 22 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	U	103	Total	C	N	O	S	0	0
			780	488	145	143	4		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
23	X	61	Total	C	N	O	S	0	0
			504	312	97	93	2		

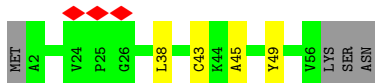
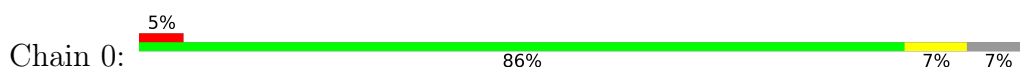
- Molecule 24 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	Y	56	Total	C	N	O	S	0	0
			441	273	86	81	1		

### 3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

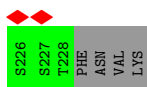
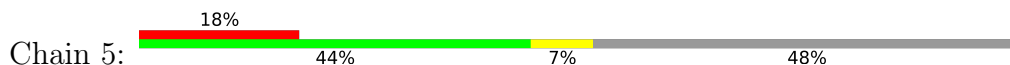
- Molecule 1: 50S ribosomal protein L32



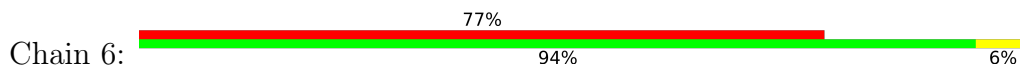
- Molecule 2: 50S ribosomal protein L34



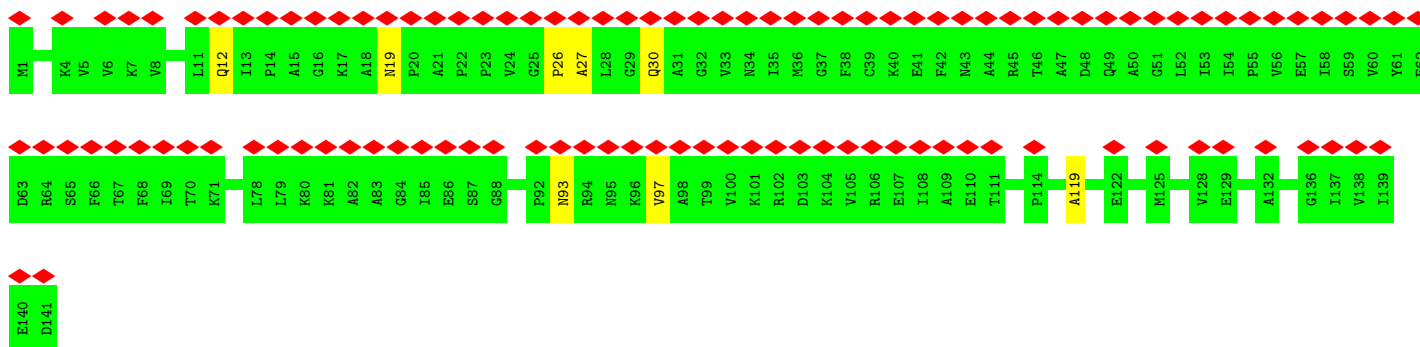
- Molecule 3: 50S ribosomal protein L1



- Molecule 4: 50S ribosomal protein L11








U1501	U1441	C1261	U1321	C1141	U1081	A1021	C961	U901	A841	A781	G721
G1502	A1442	C1262	G1322	A1142	G1082	G1022	C962	G902	C842	A782	A722
G1503	C1443	G1263	A1323	U1143	G1083	G1023	G963	G903	C843	A783	A723
A1504	C1384	G1264	G1324	U1144	A1084	G1024	A964	G905	C844	A784	A724
U1505	A1445	A1265	A1325	G1145	U1085	A1025	A965	G906	G845	A785	C725
A1506	G1386	A1266	A1326	C1146	U1086	A1026	U966	G907	G846	A786	C726
U1507	C1387	G1267	U1327	U1147	U1087	A1027	C967	U907	A847	A787	A727
C1508	A1388	G1268	C1328	U1148	C1088	C1028	C968	A908	G848	A788	G728
C1509	C1389	A1269	G1329	A1149	C1089	A1029	C969	A909	A849	C789	G729
G1510	C1390	C1270	C1330	C1150	U1090	G1030	A970	A910	U850	A790	U730
C1511	U1391	C1271	C1331	U1151	U1091	C1031	A971	G911	A851	C791	G731
G1512	A1392	G1272	U1332	G1152	A1092	C1032	U972	C912	G852	U792	A732
U1513	C1393	G1273	C1333	G1153	G1093	C1033	G973	A913	C853	U793	U733
C1514	G1394	U1274	C1334	U1154	A1094	A1034	A974	C914	U854	U794	C734
C1515	C1395	G1275	A1335	C1155	C1095	G1035	C975	U915	G855	G795	U735
A1516	G1276	G1276	C1336	G1156	A1096	A1036	U976	G916	G856	A796	A736
A1517	C1397	A1277	C1337	U1157	A1097	C1037	U977	A917	U857	A797	C737
G1518	U1398	G1278	U1338	G1158	C1098	C1038	A978	U918	U858	A798	C738
U1519	C1399	C1279	A1339	U1159	C1099	G1039	U979	U919	C859	A799	C739
A1520	G1400	G1280	U1340	U1160	C1100	C1040	C980	G920	U860	G800	A740
G1521	C1401	C1281	A1341	A1161	C1101	C1041	C981	G921	C861	U801	U741
U1522	G1402	U1282	G1342	C1162	G1102	A1042	U982	A922	U862	G802	G742
U1523	C1403	U1283	C1343	U1163	A1103	G1043	U983	C923	C863	C803	U743
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A1525	U1405	G1285	U1345	G1165	G1105	U1045	G985	A925	G865	G805	C745
G1526	A1406	A1286	A1346	U1166	U1106	A1046	G986	G926	A866	G806	A746
C1527	G1407	U1287	G1347	C1167	U1107	A1047	A987	G927	A867	G807	G747
U1528	G1408	G1288	G1348	G1168	G1108	G1048	C988	G928	A868	A808	G748
G1529	A1409	U1289	U1349	C1169	G1109	U1049	U989	G929	U869	U809	G749
G1530	G1410	U1290	A1350	C1170	C1110	U1050	C990	C930	A870	G810	U750
G1531	U1411	A1291	U1351	G1171	U1111	C1051	A991	C931	G871	A811	G751
A1532	C1412	G1292	U1352	A1172	U1112	C1052	G992	C932	C872	G812	A752
C1533	U1413	A1293	C1353	A1173	U1113	C1053	A993	C933	G873	A753	G754
A1534	C1414	A1294	C1354	U1174	G1114	A1054	C994	C934	U874	U814	G755
U1535	G1415	U1295	A1355	A1175	U1115	A1055	U995	U934	U875	G815	U756
A1536	G1416	G1296	G1356	U1176	A1116	A1056	G996	A935	A876	U816	C756
G1537	U1417	C1297	A1357	U1177	G1117	G1057	C997	C936	G877	G817	A757
G1538	U1418	C1298	G1358	U1178	C1118	U1058	G998	C937	G878	G818	A758
C1539	G1419	G1299	G1359	A1179	A1119	A1059	A999	G938	G879	G819	G759
A1540	U1420	G1300	A1360	C1180	U1120	U1060	G1000	G939	C880	U820	G760
A1541	A1421	U1301	A1361	G1181	C1121	A1061	U1001	G940	U881	A821	U761
U1542	C1422	A1302	G1362	G1182	U1122	G1062	G1002	U941	A882	G822	A762
C1543	A1423	U1303	C1363	G1183	C1123	G1063	A1003	U942	G883	G823	A763
A1544	U1424	G1304	G1364	U1184	U1124	U1064	U1004	A943	C884	G824	C764
C1545	A1425	A1305	U1365	G1185	C1125	U1065	A1005	C944	C885	G825	A765
G1546	U1426	G1306	C1366	C1186	C1126	A1066	A1006	C945	U886	U826	C766
U1547	G1427	U1307	G1367	U1187	U1127	A1067	G1007	G946	C887	G827	U767
U1548	G1428	A1308	U1368	A1188	U1128	U1068	A1008	A947	A888	A828	G768
U1549	U1429	G1309	C1369	U1189	U1129	U1069	U1009	A948	A889	A829	A769
C1550	U1430	C1310	C1370	A1190	U1129	G1070	C1010	U949	G890	A830	A770
C1551	G1431	G1311	U1371	C1191	U1130	G1071	C1011	U950	U891	U831	U771
C1552	A1432	G1312	C1372	G1192	A1131	A1072	G1012	U951	U892	G832	G772
A1553	U1433	A1313	U1373	U1193	U1132	A1073	U1013	C951	A893	C833	G773
U1554	G1434	A1254	C1374	A1194	G1133	A1074	U1014	A952	A894	C834	A774
C1555	U1435	G1315	A1375	U1195	G1134	A1075	G1015	G953	G895	A835	G775
A1556	G1436	A1316	G1376	C1196	U1135	G1076	U1016	C954	A896	A836	G776
G1557	U1437	G1317	G1377	A1197	U1136	G1077	C1017	C955	G897	U837	C777
U1498	C1438	U1318	G1378	C1198	G1137	U1078	U1018	A956	U898	C838	C778
C1559	A1439	G1319	U1379	C1199	U1138	A1079	A1019	A957	C899	G839	C779
U1560	G1440	G1320	U1380	G1200	G1139	G1080	A1020	U960	U900	A840	G780

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C2342	G2282	C2222	G2162	C2102	A2042	A1982	C1922	C1862	A1802	G1742	C1682	C1622	A1562
U2343	C2283	U2223	A2163	U2103	A2043	G1983	C1923	U1863	C1803	A1743	U1683	C1623	C1563
U2344	G2284	U2224	A2164	U2104	A2044	U1984	C1924	G1864	C1804	G1744	U1684	U1624	C1564
U2345	G2285	C2225	A2165	U2105	U2045	U1985	A1925	C1865	G1805	A1745	A1685	C1625	U1565
C2346	U2286	U2226	C2166	A2106	U2046	C1986	G1926	C1867	U1806	G1746	A1686	U1626	U1566
C2347	C2287	A2227	C2167	C2107	A2047	C1987	G1927	G1868	U1807	G1747	G1687	A1627	U1567
C2348	G2288	A2228	C2168	U2108	U2048	G1988	G1928	U1869	U1808	G1748	G1688	C1628	G1568
C2349	C2289	C2229	G2169	G2109	A2049	A1989	A1929	U1870	A1809	G1749	U1689	G1630	A1569
C2350	C2290	C2230	C2170	C2110	G2050	C1990	A1930	U1871	G1810	U1750	U1690	A1630	U1570
A2351	U2291	C2231	A2170	A2110	U2051	C1991	C1931	C1872	A1812	U1751	A1691	A1631	U1571
C2352	C2292	G2232	G2171	G2112	A2052	C1992	G1932	U1873	A1813	G1752	U1692	G1632	G1572
U2353	C2293	C2233	C2172	C2113	C2053	G1993	G1933	C1874	A1814	U1754	G1694	G1633	C1573
G2354	U2294	C2234	G2173	C2114	C2054	C1994	C1934	G1875	A1815	U1755	G1695	U1634	G1574
U2355	A2295	G2235	C2174	U2115	U2055	A1995	G1935	U1876	A1816	C1756	A1696	G1635	A1575
A2356	A2296	C2236	C2175	G2116	G2056	C1996	G1936	A1877	C1817	U1757	G1697	A1636	G1576
A2357	A2297	C2237	A2176	A2117	U2057	G1997	C1937	A1878	U1818	U1758	G1698	G1637	C1577
A2358	A2298	C2238	G2177	U2118	A2059	A1998	G1938	A1879	C1819	U1759	A1699	G1639	G1578
G2359	G2299	U2239	C2178	A2119	A2060	U1999	U1939	G	A1820	U1760	A1700	G1640	A1580
C2360	U2300	U2240	U2179	U2120	A2061	A2000	U1940	G	G1821	G1761	C1701	U1641	A1581
C2361	U2301	A2241	U2180	U2121	G2062	G2001	U1941	U	U1822	G1762	U1702	U1642	U1582
A2362	A2302	U2242	C2181	G2122	A2063	C2002	A1941	A	U1823	G1763	C1703	C1643	A1583
C2363	A2303	C2243	G2182	A2123	G2064	C2003	A1942	A	C1824	U1764	U1704	C1644	U1584
A2364	C2304	G2244	G2183	A2124	G2065	C2004	C1943	A	U1825	G1765	C1705	C1645	A1585
G2365	G2305	G2245	U2184	U2125	A2066	C2005	U1944	A	C1826	C1766	G1706	G1646	G1586
A2366	G2306	G2246	G2185	G2126	A2067	A2006	U1945	G	U1827	A1767	U1707	U1647	U1587
G2367	A2307	C2247	G2186	U2127	G2068	C2007	A1946	G	G1828	A1768	U1708	A1648	A1588
G2368	G2308	G2248	A2187	U2128	U2069	C2008	U1947	A	C1829	G1769	A1709	C1649	G1589
A2369	G2309	G2249	G2188	U2129	U2070	G2009	A1948	G	G1830	C1770	A1710	C1650	C1590
C2370	C2310	G2250	U2189	G2130	A2071	A2010	U1949	C	A1831	C1771	G1711	C1651	C1591
C2371	G2311	U2251	G2189	U2131	C2072	U2011	C1950	C	A1832	C1772	G1712	C1652	A1592
U2372	C2312	A2252	C2190	A2132	C2073	C2012	G1951	C	A1833	C1773	A1713	A1653	A1593
U2373	C2313	U2253	A2191	C2133	C2074	G2014	U1952	U	C1834	A1774	C1714	A1654	G1594
G2374	C2314	A2254	U2192	A2134	G2075	G2015	C1953	U	C1835	G1775	C1715	A1655	U1595
C2375	A2315	C2255	C2193	G2135	G2076	G2016	U1954	A	G1836	A1776	U1716	C1656	U1596
A2376	A2316	A2256	G2194	C2136	G2077	C2017	C1955	C	A1838	G1777	C1717	C1657	C1597
U2377	A2317	G2257	C2195	U2137	A2078	A2018	C1956	C	A1839	A1778	G1718	G1658	C1598
C2378	G2318	U2258	G2196	U2138	C2079	C2019	U1957	G	C1840	G1779	G1719	A1659	U1599
G2379	C2319	G2259	G2197	G2139	A2080	U2020	U1958	U	A1841	C1780	C1720	C1660	G1600
A2380	U2320	C2261	C2198	U2140	G2081	G2021	A1959	A	C1842	G1781	A1721	A1661	A1601
C2381	C2321	A2262	G2199	A2141	G2082	G2022	U1960	C	G1843	G1782	A1722	C1662	U1602
C2382	C2322	U2263	A2200	C2142	A2083	C2023	G1959	C	A1844	C1783	A1723	A1663	U1603
A2383	C2323	C2264	U2201	A2143	G2084	C2024	A1961	C	A1845	G1784	A1724	G1664	C1604
C2384	U2324	U2265	A2202	G2144	G2085	C2025	U1962	C	U1846	G1785	U1725	G1665	C1605
C2385	C2325	U2266	C2203	G2145	G2086	A2026	C1962	A	U1847	G1786	A1727	U1666	A1606
U2386	A2326	G2267	U2204	A2146	A2087	A2027	C1963	A	A1848	A1788	C1728	G1668	A1608
A2387	C2327	G2268	A2205	U2147	A2088	C2028	G1964	G	U1849	A1789	C1729	G1669	C1609
C2388	G2328	C2269	G2206	U2148	A2089	G2029	A1965	U	A1850	U1790	C1730	C1670	U1610
A2389	A2329	U2270	C2207	G2149	G2090	A2030	U1966	C	G1851	A1791	C1731	G1671	G1611
C2390	U2330	G2271	C2208	U2150	A2091	G2031	A1967	C	G1852	G1792	G1732	A1672	C1612
G2391	C2331	U2272	U2209	G2151	C2092	A2032	U1968	G	G1853	G1793	U1733	C1673	C1613
C2392	U2332	U2273	G2210	A2152	C2093	G2033	U1969	A	G1854	C1794	A1734	G1674	A1614
U2393	C2333	U2274	G2211	C2153	C2094	A2034	C1970	A	C1855	G1795	A1735	A1675	A1615
A2394	U2334	G2275	G2212	G2154	C2095	C2035	U1971	U	U1856	C1796	C1736	G1676	G1616
C2395	U2335	A2276	U2213	G2155	G2096	C2036	U1972	C	G1857	A1797	U1737	A1677	A1617
G2396	G2336	C2277	G2214	A2156	U2097	C2037	U1973	U	A1858	G1798	U1738	A1678	A1618
A2397	A2337	U2278	U2215	G2157	G2098	G2038	G1974	G	C1859	C1799	C1739	A1679	A1619
C2398	C2338	U2279	A2216	C2158	G2099	G2039	U1975	A	G1860	C1800	G1740	A1680	
A2399	A2339	G2280	U2217	U2159	A2100	U2040	C1976	G					
G2400	C2340		G2218	U2160			G1977						
			A2219				G1978						
							U1980						




- Molecule 8: 50S ribosomal protein L3

Chain D:  89% 9% ..




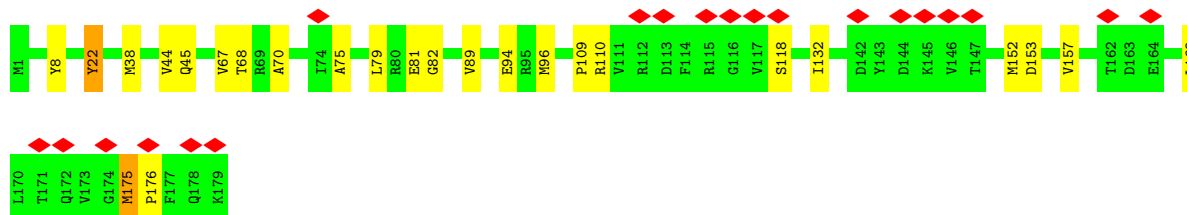
- Molecule 9: 50S ribosomal protein L4

Chain E:  86% 12% .




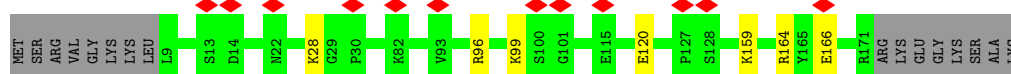
- Molecule 10: 50S ribosomal protein L5

Chain F:  11% 86% 13% .




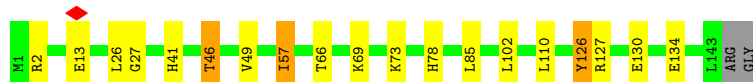
- Molecule 11: 50S ribosomal protein L6

Chain G:  7% 87% 9% .



- Molecule 12: 50S ribosomal protein L13

Chain J:  86% 11% ..




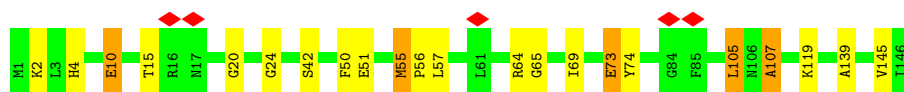
- Molecule 13: 50S ribosomal protein L14

Chain K:  93% 7%



- Molecule 14: 50S ribosomal protein L15

Chain L:  85% 12%




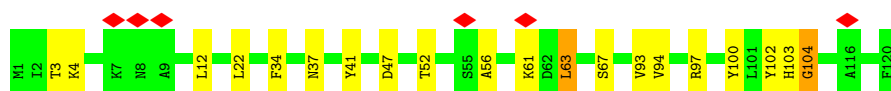
- Molecule 15: 50S ribosomal protein L17

Chain N:  94% 6%



- Molecule 16: 50S ribosomal protein L18

Chain O:  83% 15%



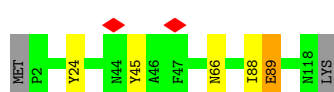
- Molecule 17: 50S ribosomal protein L19

Chain P:  73% 20%




- Molecule 18: 50S ribosomal protein L20

Chain Q:  94%



- Molecule 19: 50S ribosomal protein L21

Chain R:  88% 11%




- Molecule 20: 50S ribosomal protein L22

Chain S:  93% 5%




- Molecule 21: 50S ribosomal protein L23

Chain T:  86% 12%




- Molecule 22: 50S ribosomal protein L24

Chain U:  84% 15%



- Molecule 23: 50S ribosomal protein L29

Chain X:  85% 8% 8%



- Molecule 24: 50S ribosomal protein L30

Chain Y:  17% 92% 5%



## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	21020	Depositor
Resolution determination method	OTHER	Depositor
CTF correction method	Each particle	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	20	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	59000	Depositor
Image detector	FEI EAGLE (4k x 4k)	Depositor
Maximum map value	10.841	Depositor
Minimum map value	-4.301	Depositor
Average map value	0.000	Depositor
Map value standard deviation	1.000	Depositor
Recommended contour level	2.7	Depositor
Map size ( $\text{\AA}$ )	384.0, 384.0, 384.0	wwPDB
Map dimensions	256, 256, 256	wwPDB
Map angles ( $^\circ$ )	90.0, 90.0, 90.0	wwPDB
Pixel spacing ( $\text{\AA}$ )	1.5, 1.5, 1.5	Depositor



## 5 Model quality

### 5.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z  > 5$	RMSZ	$\# Z  > 5$
1	0	1.04	0/440	1.06	1/584 (0.2%)
2	2	1.26	0/371	1.06	0/483
3	5	0.87	0/921	1.10	1/1239 (0.1%)
4	6	0.91	0/1058	1.02	0/1427
5	A	1.69	134/69349 (0.2%)	2.70	8798/108189 (8.1%)
6	B	1.64	4/2843 (0.1%)	2.64	336/4432 (7.6%)
7	C	1.01	0/2166	1.09	2/2902 (0.1%)
8	D	0.96	0/1590	1.07	0/2130
9	E	0.97	0/1586	1.08	2/2139 (0.1%)
10	F	0.96	0/1432	1.09	2/1920 (0.1%)
11	G	0.98	0/1264	1.05	0/1709
12	J	0.94	0/1157	1.04	0/1557
13	K	1.03	0/928	1.05	0/1245
14	L	0.98	0/1094	1.09	2/1457 (0.1%)
15	N	1.08	0/969	1.06	0/1294
16	O	1.01	0/922	1.05	1/1236 (0.1%)
17	P	1.10	0/929	1.21	5/1243 (0.4%)
18	Q	1.06	0/952	1.08	4/1266 (0.3%)
19	R	0.91	0/806	1.09	0/1080
20	S	1.01	0/877	1.13	1/1179 (0.1%)
21	T	1.00	0/774	1.11	1/1030 (0.1%)
22	U	0.87	0/790	1.15	0/1054
23	X	1.05	0/505	1.02	0/671
24	Y	0.97	0/443	1.01	0/594
All	All	1.55	138/94166 (0.1%)	2.45	9156/142060 (6.4%)

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
5	A	0	447

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Mol	Chain	#Chirality outliers	#Planarity outliers
6	B	0	15
8	D	0	2
9	E	0	1
14	L	0	2
15	N	0	1
17	P	0	3
21	T	0	3
All	All	0	474

All (138) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	A	1253	A	N7-C5	-7.44	1.34	1.39
5	A	353	A	N7-C5	-7.42	1.34	1.39
5	A	629	G	C2'-C1'	-7.08	1.45	1.53
5	A	1449	C	P-O5'	-7.08	1.52	1.59
5	A	2297	A	N7-C5	-6.86	1.35	1.39
6	B	71	A	N7-C5	-6.74	1.35	1.39
5	A	518	A	N7-C5	-6.70	1.35	1.39
5	A	2254	A	N7-C5	-6.58	1.35	1.39
5	A	225	A	N7-C5	-6.50	1.35	1.39
5	A	752	A	N7-C5	-6.48	1.35	1.39
5	A	630	A	N7-C5	-6.42	1.35	1.39
5	A	1839	A	N7-C5	-6.42	1.35	1.39
5	A	765	A	N7-C5	-6.40	1.35	1.39
5	A	1525	G	P-O5'	-6.30	1.53	1.59
5	A	1831	A	N7-C5	-6.28	1.35	1.39
5	A	2627	A	N7-C5	-6.18	1.35	1.39
5	A	374	A	N7-C5	-6.13	1.35	1.39
5	A	2176	A	N7-C5	-6.09	1.35	1.39
5	A	163	U	C2-N3	6.02	1.42	1.37
5	A	758	A	N7-C5	-6.01	1.35	1.39
5	A	1485	A	N7-C5	-6.00	1.35	1.39
5	A	49	A	N7-C5	-5.98	1.35	1.39
5	A	168	A	N7-C5	-5.97	1.35	1.39
5	A	52	A	N7-C5	-5.97	1.35	1.39
5	A	1628	G	C2'-C1'	-5.95	1.46	1.53
5	A	2778	A	N7-C5	-5.93	1.35	1.39
5	A	1006	A	N7-C5	-5.90	1.35	1.39
5	A	653	A	N7-C5	-5.88	1.35	1.39
5	A	300	G	N7-C5	-5.82	1.35	1.39
5	A	1503	G	C6-N1	5.80	1.43	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	A	1544	C	N3-C4	5.72	1.38	1.33
5	A	830	A	N7-C5	-5.71	1.35	1.39
5	A	2859	G	N7-C5	-5.70	1.35	1.39
5	A	1068	G	C2-N3	5.69	1.37	1.32
5	A	1638	A	N7-C5	-5.68	1.35	1.39
5	A	746	A	N7-C5	-5.68	1.35	1.39
5	A	527	A	N7-C5	-5.68	1.35	1.39
5	A	549	A	N7-C5	-5.65	1.35	1.39
5	A	2133	C	N3-C4	5.64	1.37	1.33
5	A	2214	G	N1-C2	5.62	1.42	1.37
5	A	947	A	N7-C5	-5.61	1.35	1.39
5	A	224	A	N7-C5	-5.60	1.35	1.39
5	A	1561	G	N1-C2	5.58	1.42	1.37
5	A	2835	A	N7-C5	-5.54	1.35	1.39
5	A	944	C	N3-C4	5.54	1.37	1.33
5	A	2202	A	N7-C5	-5.54	1.35	1.39
5	A	600	A	N7-C5	-5.54	1.35	1.39
5	A	2441	A	N7-C5	-5.53	1.35	1.39
5	A	161	A	N7-C5	-5.53	1.35	1.39
5	A	2785	U	C2-N3	5.48	1.41	1.37
5	A	575	A	N7-C5	-5.47	1.35	1.39
5	A	760	G	N7-C5	-5.46	1.35	1.39
5	A	2505	A	C2'-C1'	-5.46	1.47	1.53
5	A	820	U	C2-N3	5.45	1.41	1.37
5	A	1516	A	N7-C5	-5.43	1.35	1.39
6	B	97	A	N7-C5	-5.41	1.36	1.39
6	B	33	U	C2-N3	5.40	1.41	1.37
5	A	926	G	C2-N3	5.39	1.37	1.32
5	A	538	A	N7-C5	-5.37	1.36	1.39
5	A	2411	G	C2-N3	5.36	1.37	1.32
5	A	867	A	N7-C5	-5.35	1.36	1.39
5	A	2754	A	N7-C5	-5.34	1.36	1.39
5	A	559	A	N9-C4	-5.33	1.34	1.37
5	A	1074	A	N7-C5	-5.33	1.36	1.39
5	A	2743	G	C2-N3	5.32	1.37	1.32
5	A	1067	A	N7-C5	-5.31	1.36	1.39
5	A	960	U	C2-N3	5.29	1.41	1.37
5	A	2058	G	C2-N3	5.28	1.36	1.32
5	A	2770	A	N7-C5	-5.28	1.36	1.39
5	A	88	G	N7-C5	-5.27	1.36	1.39
5	A	383	U	C2-N3	5.27	1.41	1.37
5	A	1857	G	C2-N3	5.27	1.36	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	A	902	G	N1-C2	5.26	1.42	1.37
5	A	461	C	N3-C4	5.26	1.37	1.33
5	A	1601	A	N7-C5	-5.26	1.36	1.39
5	A	513	A	N7-C5	-5.25	1.36	1.39
5	A	1327	U	P-O5'	-5.25	1.54	1.59
5	A	1675	A	N7-C5	-5.25	1.36	1.39
5	A	737	C	N3-C4	5.25	1.37	1.33
5	A	645	C	N3-C4	5.24	1.37	1.33
5	A	1103	A	N7-C5	-5.23	1.36	1.39
5	A	911	G	N9-C4	-5.23	1.33	1.38
5	A	42	G	N1-C2	5.22	1.42	1.37
5	A	903	G	N1-C2	5.22	1.42	1.37
5	A	1550	C	N3-C4	5.20	1.37	1.33
5	A	2373	U	C2-N3	5.19	1.41	1.37
5	A	2765	G	N1-C2	5.19	1.41	1.37
5	A	106	G	N1-C2	5.17	1.41	1.37
5	A	1820	A	N7-C5	-5.17	1.36	1.39
5	A	2096	G	C2-N3	5.17	1.36	1.32
5	A	465	U	C2-N3	5.16	1.41	1.37
5	A	1061	A	N7-C5	-5.16	1.36	1.39
5	A	586	C	C2'-C1'	-5.16	1.47	1.53
5	A	2571	A	P-O5'	-5.16	1.54	1.59
5	A	1023	G	N1-C2	5.15	1.41	1.37
5	A	1412	A	N7-C5	-5.15	1.36	1.39
5	A	1679	A	N7-C5	-5.15	1.36	1.39
6	B	102	A	N7-C5	-5.15	1.36	1.39
5	A	317	G	C2-N3	5.14	1.36	1.32
5	A	307	A	N7-C5	-5.14	1.36	1.39
5	A	1243	A	O3'-P	-5.13	1.54	1.61
5	A	34	U	C2-N3	5.13	1.41	1.37
5	A	1746	A	N7-C5	-5.13	1.36	1.39
5	A	1850	A	N7-C5	-5.12	1.36	1.39
5	A	1523	U	C2-N3	5.12	1.41	1.37
5	A	2775	U	C2-N3	5.12	1.41	1.37
5	A	948	A	N7-C5	-5.12	1.36	1.39
5	A	2871	G	C2-N3	5.12	1.36	1.32
5	A	901	U	C2-N3	5.11	1.41	1.37
5	A	825	G	N1-C2	5.11	1.41	1.37
5	A	1588	A	N9-C4	-5.10	1.34	1.37
5	A	1802	A	N7-C5	-5.10	1.36	1.39
5	A	1637	G	C2-N3	5.10	1.36	1.32
5	A	1182	G	C2-N3	5.09	1.36	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	A	1800	C	N3-C4	5.09	1.37	1.33
5	A	1440	G	N1-C2	5.09	1.41	1.37
5	A	965	A	N7-C5	-5.08	1.36	1.39
5	A	2442	G	C2-N3	5.08	1.36	1.32
5	A	30	G	N1-C2	5.08	1.41	1.37
5	A	626	G	N1-C2	5.07	1.41	1.37
5	A	65	A	N7-C5	-5.06	1.36	1.39
5	A	259	A	N7-C5	-5.05	1.36	1.39
5	A	88	G	C2-N3	5.04	1.36	1.32
5	A	1724	A	N7-C5	-5.04	1.36	1.39
5	A	1580	A	N7-C5	-5.04	1.36	1.39
5	A	665	G	C2-N3	5.04	1.36	1.32
5	A	2513	G	N1-C2	5.04	1.41	1.37
5	A	2143	A	N7-C5	-5.04	1.36	1.39
5	A	2894	G	C2-N3	5.03	1.36	1.32
5	A	1735	A	N7-C5	-5.03	1.36	1.39
5	A	462	A	N7-C5	-5.02	1.36	1.39
5	A	1491	A	N7-C5	-5.02	1.36	1.39
5	A	1635	G	C2-N3	5.02	1.36	1.32
5	A	2414	C	N3-C4	5.01	1.37	1.33
5	A	1517	A	N7-C5	-5.01	1.36	1.39
5	A	254	A	N7-C5	-5.01	1.36	1.39
5	A	1859	C	N3-C4	5.00	1.37	1.33
5	A	1075	A	N7-C5	-5.00	1.36	1.39

All (9156) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	10	G	P-O3'-C3'	26.30	151.26	119.70
5	A	1339	A	P-O3'-C3'	26.04	150.94	119.70
5	A	178	A	P-O3'-C3'	22.26	146.41	119.70
5	A	2062	A	P-O3'-C3'	21.01	144.91	119.70
5	A	74	U	P-O3'-C3'	20.60	144.42	119.70
5	A	375	C	P-O3'-C3'	20.46	144.25	119.70
5	A	1449	C	P-O5'-C5'	19.34	151.84	120.90
5	A	1525	G	P-O5'-C5'	18.96	151.24	120.90
5	A	402	U	P-O3'-C3'	18.79	142.24	119.70
5	A	2252	A	P-O3'-C3'	18.63	142.05	119.70
5	A	1676	G	P-O3'-C3'	18.42	141.80	119.70
5	A	1243	A	P-O3'-C3'	18.09	141.41	119.70
5	A	1606	A	P-O3'-C3'	17.66	140.89	119.70
5	A	2785	U	P-O3'-C3'	17.55	140.76	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2904	A	N1-C6-N6	17.41	129.04	118.60
5	A	1503	G	N1-C6-O6	17.39	130.34	119.90
5	A	2155	A	P-O3'-C3'	17.39	140.57	119.70
5	A	182	C	P-O3'-C3'	17.16	140.29	119.70
5	A	2862	A	N1-C6-N6	17.09	128.86	118.60
5	A	1454	C	P-O3'-C3'	16.92	140.00	119.70
5	A	2564	A	N1-C6-N6	16.91	128.75	118.60
5	A	224	A	P-O3'-C3'	16.85	139.92	119.70
5	A	1625	C	P-O3'-C3'	16.80	139.86	119.70
5	A	2917	G	P-O3'-C3'	16.72	139.77	119.70
5	A	71	A	P-O3'-C3'	16.64	139.67	119.70
5	A	2120	U	P-O3'-C3'	16.57	139.59	119.70
5	A	1093	G	P-O3'-C3'	16.22	139.17	119.70
5	A	1450	C	P-O3'-C3'	16.20	139.14	119.70
5	A	1058	U	P-O3'-C3'	16.16	139.09	119.70
5	A	1269	A	P-O3'-C3'	16.16	139.09	119.70
5	A	1520	A	N1-C6-N6	16.05	128.23	118.60
5	A	1698	G	P-O3'-C3'	16.00	138.90	119.70
5	A	435	G	P-O3'-C3'	15.99	138.88	119.70
5	A	64	A	P-O3'-C3'	15.86	138.73	119.70
5	A	1636	A	N1-C6-N6	15.85	128.11	118.60
5	A	1503	G	C5-C6-O6	-15.74	119.16	128.60
5	A	2908	A	N1-C6-N6	15.65	127.99	118.60
5	A	1221	A	N1-C6-N6	15.59	127.95	118.60
5	A	333	A	N1-C6-N6	15.41	127.84	118.60
5	A	413	U	P-O3'-C3'	15.28	138.04	119.70
5	A	462	A	N1-C6-N6	15.22	127.73	118.60
5	A	2123	A	N1-C6-N6	15.22	127.73	118.60
5	A	56	A	N1-C6-N6	15.12	127.67	118.60
5	A	305	A	N1-C6-N6	15.02	127.61	118.60
5	A	163	U	P-O3'-C3'	15.00	137.70	119.70
5	A	1672	A	N1-C6-N6	14.99	127.59	118.60
5	A	1113	A	P-O3'-C3'	14.99	137.68	119.70
5	A	1461	A	N1-C6-N6	14.92	127.55	118.60
5	A	913	A	N1-C6-N6	14.88	127.53	118.60
5	A	154	A	N1-C6-N6	14.87	127.52	118.60
5	A	2006	A	N1-C6-N6	14.81	127.49	118.60
5	A	2488	A	N1-C6-N6	14.80	127.48	118.60
5	A	588	C	P-O3'-C3'	14.75	137.40	119.70
5	A	1361	A	N1-C6-N6	14.72	127.44	118.60
5	A	1210	A	P-O3'-C3'	14.72	137.37	119.70
5	A	549	A	N1-C6-N6	14.68	127.41	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2139	G	P-O3'-C3'	14.65	137.28	119.70
5	A	1677	A	P-O3'-C3'	14.63	137.26	119.70
5	A	400	U	P-O3'-C3'	14.61	137.23	119.70
5	A	2907	A	N1-C6-N6	14.56	127.34	118.60
5	A	1697	A	P-O5'-C5'	14.45	144.03	120.90
5	A	2059	A	P-O3'-C3'	14.45	137.04	119.70
5	A	1925	A	N1-C6-N6	14.43	127.26	118.60
5	A	150	A	P-O3'-C3'	14.43	137.01	119.70
5	A	2889	A	N1-C6-N6	14.41	127.25	118.60
5	A	1709	A	N1-C6-N6	14.39	127.23	118.60
5	A	1417	A	N1-C6-N6	14.38	127.23	118.60
5	A	548	A	N1-C6-N6	14.37	127.22	118.60
5	A	1713	A	N1-C6-N6	14.32	127.19	118.60
5	A	2348	C	P-O3'-C3'	14.28	136.83	119.70
6	B	99	A	N1-C6-N6	14.26	127.15	118.60
5	A	910	A	N1-C6-N6	14.25	127.15	118.60
5	A	705	A	N1-C6-N6	14.23	127.14	118.60
5	A	302	A	N1-C6-N6	14.17	127.10	118.60
5	A	1340	A	P-O3'-C3'	14.13	136.65	119.70
5	A	1805	G	P-O3'-C3'	14.12	136.65	119.70
5	A	2887	A	N1-C6-N6	14.12	127.07	118.60
5	A	2052	A	N1-C6-N6	14.11	127.07	118.60
5	A	1721	A	N1-C6-N6	14.09	127.05	118.60
5	A	1496	G	P-O3'-C3'	14.07	136.58	119.70
5	A	1292	G	P-O3'-C3'	14.07	136.58	119.70
5	A	572	A	N1-C6-N6	14.04	127.02	118.60
5	A	496	A	N1-C6-N6	13.99	126.99	118.60
5	A	2826	A	P-O3'-C3'	13.98	136.48	119.70
5	A	230	A	N1-C6-N6	13.93	126.96	118.60
5	A	2047	A	N1-C6-N6	13.93	126.96	118.60
5	A	2479	A	N1-C6-N6	13.92	126.95	118.60
5	A	600	A	N1-C6-N6	13.91	126.95	118.60
5	A	2860	A	N1-C6-N6	13.89	126.93	118.60
5	A	922	A	N1-C6-N6	13.86	126.91	118.60
5	A	438	A	N1-C6-N6	13.84	126.90	118.60
5	A	1497	G	O4'-C1'-N9	13.83	119.26	108.20
5	A	2885	A	N1-C6-N6	13.80	126.88	118.60
5	A	666	G	P-O3'-C3'	13.80	136.26	119.70
5	A	1774	A	N1-C6-N6	13.79	126.88	118.60
5	A	849	A	N1-C6-N6	13.78	126.87	118.60
6	B	46	A	N1-C6-N6	13.78	126.87	118.60
5	A	2606	A	N1-C6-N6	13.76	126.86	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1619	A	N1-C6-N6	13.76	126.86	118.60
5	A	799	A	P-O3'-C3'	13.76	136.21	119.70
5	A	2663	A	N1-C6-N6	13.74	126.84	118.60
5	A	2670	A	N1-C6-N6	13.72	126.83	118.60
5	A	1838	A	N1-C6-N6	13.68	126.81	118.60
5	A	156	A	N1-C6-N6	13.62	126.77	118.60
5	A	307	A	N1-C6-N6	13.61	126.77	118.60
5	A	14	A	N1-C6-N6	13.60	126.76	118.60
5	A	1928	A	N1-C6-N6	13.59	126.76	118.60
5	A	150	A	N1-C6-N6	13.57	126.74	118.60
5	A	2919	A	N1-C6-N6	13.56	126.73	118.60
5	A	2134	A	N1-C6-N6	13.52	126.71	118.60
5	A	2704	A	N1-C6-N6	13.52	126.71	118.60
5	A	260	A	N1-C6-N6	13.52	126.71	118.60
5	A	434	U	P-O3'-C3'	13.52	135.92	119.70
6	B	44	A	N1-C6-N6	13.49	126.70	118.60
5	A	948	A	N1-C6-N6	13.48	126.69	118.60
5	A	278	A	N1-C6-N6	13.47	126.68	118.60
5	A	1190	A	N1-C6-N6	13.46	126.68	118.60
5	A	2357	A	N1-C6-N6	13.45	126.67	118.60
5	A	166	A	N1-C6-N6	13.43	126.66	118.60
5	A	1326	A	N1-C6-N6	13.42	126.65	118.60
5	A	1533	A	N1-C6-N6	13.40	126.64	118.60
5	A	1291	A	N1-C6-N6	13.40	126.64	118.60
5	A	1313	A	P-O3'-C3'	13.38	135.76	119.70
5	A	2790	A	N1-C6-N6	13.38	126.63	118.60
5	A	769	A	N1-C6-N6	13.38	126.62	118.60
5	A	198	A	N1-C6-N6	13.36	126.62	118.60
5	A	2837	A	N1-C6-N6	13.36	126.61	118.60
5	A	2398	A	N1-C6-N6	13.34	126.60	118.60
5	A	1655	A	N1-C6-N6	13.33	126.60	118.60
5	A	2900	A	N1-C6-N6	13.33	126.60	118.60
5	A	329	A	N1-C6-N6	13.28	126.57	118.60
5	A	1746	A	N1-C6-N6	13.26	126.56	118.60
6	B	116	C	P-O3'-C3'	13.25	135.60	119.70
5	A	592	A	N1-C6-N6	13.22	126.53	118.60
5	A	543	A	N1-C6-N6	13.22	126.53	118.60
5	A	2482	A	N1-C6-N6	13.22	126.53	118.60
5	A	1532	A	N1-C6-N6	13.21	126.53	118.60
5	A	1103	A	N1-C6-N6	13.20	126.52	118.60
5	A	1483	A	N1-C6-N6	13.20	126.52	118.60
5	A	1580	A	N1-C6-N6	13.19	126.51	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	229	A	N1-C6-N6	13.19	126.51	118.60
5	A	753	A	N1-C6-N6	13.19	126.51	118.60
5	A	781	A	N1-C6-N6	13.18	126.51	118.60
5	A	281	A	N1-C6-N6	13.17	126.50	118.60
5	A	110	A	N1-C6-N6	13.16	126.50	118.60
5	A	724	A	N1-C6-N6	13.16	126.50	118.60
5	A	1357	A	N1-C6-N6	13.16	126.50	118.60
5	A	1653	A	N1-C6-N6	13.16	126.50	118.60
5	A	2146	A	N1-C6-N6	13.15	126.49	118.60
5	A	1961	A	N1-C6-N6	13.15	126.49	118.60
5	A	2923	A	N1-C6-N6	13.14	126.49	118.60
5	A	1235	A	N1-C6-N6	13.13	126.48	118.60
6	B	27	A	N1-C6-N6	13.12	126.47	118.60
5	A	1620	A	N1-C6-N6	13.11	126.47	118.60
5	A	2436	A	N1-C6-N6	13.11	126.46	118.60
5	A	527	A	N1-C6-N6	13.10	126.46	118.60
5	A	1250	G	P-O3'-C3'	13.10	135.42	119.70
5	A	2100	A	N1-C6-N6	13.09	126.45	118.60
5	A	870	A	N1-C6-N6	13.09	126.45	118.60
5	A	526	A	N1-C6-N6	13.08	126.45	118.60
5	A	108	A	N1-C6-N6	13.07	126.44	118.60
5	A	897	G	N1-C6-O6	13.07	127.74	119.90
5	A	1776	A	N1-C6-N6	13.07	126.44	118.60
5	A	622	A	N1-C6-N6	13.06	126.44	118.60
5	A	84	A	N1-C6-N6	13.04	126.43	118.60
5	A	1458	U	P-O3'-C3'	13.04	135.35	119.70
5	A	2740	A	N1-C6-N6	13.04	126.42	118.60
5	A	619	A	N1-C6-N6	13.03	126.42	118.60
5	A	1490	A	N1-C6-N6	12.99	126.40	118.60
5	A	1727	A	N1-C6-N6	12.99	126.39	118.60
5	A	2270	A	N1-C6-N6	12.99	126.39	118.60
5	A	952	A	N1-C6-N6	12.98	126.39	118.60
5	A	2170	A	N1-C6-N6	12.97	126.38	118.60
5	A	2406	A	N1-C6-N6	12.96	126.38	118.60
5	A	2044	A	N1-C6-N6	12.96	126.37	118.60
5	A	700	U	P-O3'-C3'	12.96	135.25	119.70
5	A	1115	A	P-O3'-C3'	12.95	135.24	119.70
5	A	647	A	P-O3'-C3'	12.92	135.20	119.70
5	A	559	A	N1-C6-N6	12.91	126.35	118.60
5	A	584	A	N1-C6-N6	12.89	126.33	118.60
6	B	55	A	N1-C6-N6	12.88	126.33	118.60
5	A	216	A	N1-C6-N6	12.88	126.33	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2262	A	N1-C6-N6	12.88	126.33	118.60
5	A	1327	U	P-O5'-C5'	12.87	141.49	120.90
5	A	1588	A	N1-C6-N6	12.87	126.32	118.60
5	A	1157	A	N1-C6-N6	12.86	126.32	118.60
5	A	1059	A	N1-C6-N6	12.86	126.31	118.60
5	A	2812	A	N1-C6-N6	12.84	126.31	118.60
5	A	722	A	N1-C6-N6	12.84	126.30	118.60
5	A	1477	A	N1-C6-N6	12.83	126.30	118.60
5	A	1832	A	N1-C6-N6	12.82	126.29	118.60
5	A	1084	A	N1-C6-N6	12.82	126.29	118.60
5	A	178	A	N1-C6-N6	12.81	126.29	118.60
5	A	821	A	N1-C6-N6	12.81	126.29	118.60
5	A	107	G	N1-C6-O6	12.81	127.58	119.90
5	A	1244	A	N1-C6-N6	12.81	126.28	118.60
5	A	1661	A	N1-C6-N6	12.81	126.28	118.60
5	A	903	G	P-O3'-C3'	12.80	135.06	119.70
5	A	925	A	N1-C6-N6	12.80	126.28	118.60
5	A	1094	A	N1-C6-N6	12.79	126.27	118.60
5	A	1313	A	N1-C6-N6	12.79	126.27	118.60
5	A	974	A	N1-C6-N6	12.78	126.27	118.60
5	A	2546	C	P-O3'-C3'	12.78	135.04	119.70
5	A	623	A	N1-C6-N6	12.78	126.27	118.60
5	A	2276	A	N1-C6-N6	12.78	126.27	118.60
5	A	2369	A	N1-C6-N6	12.78	126.27	118.60
5	A	2830	A	N1-C6-N6	12.78	126.27	118.60
5	A	2383	A	N1-C6-N6	12.77	126.26	118.60
5	A	406	G	P-O3'-C3'	12.77	135.02	119.70
5	A	1809	A	N1-C6-N6	12.76	126.25	118.60
5	A	888	A	N1-C6-N6	12.75	126.25	118.60
5	A	2364	A	N1-C6-N6	12.75	126.25	118.60
5	A	1258	A	N1-C6-N6	12.74	126.25	118.60
5	A	1710	A	N1-C6-N6	12.74	126.24	118.60
5	A	2734	A	N1-C6-N6	12.73	126.24	118.60
5	A	1417	A	P-O3'-C3'	12.73	134.98	119.70
5	A	1945	A	P-O3'-C3'	12.72	134.96	119.70
5	A	2440	A	N1-C6-N6	12.71	126.22	118.60
5	A	2007	A	N1-C6-N6	12.71	126.22	118.60
5	A	2924	A	N1-C6-N6	12.71	126.22	118.60
5	A	736	A	N1-C6-N6	12.70	126.22	118.60
5	A	2782	A	N1-C6-N6	12.70	126.22	118.60
5	A	280	G	N1-C6-O6	12.69	127.52	119.90
5	A	646	A	N1-C6-N6	12.69	126.21	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	21	A	N1-C6-N6	12.69	126.21	118.60
5	A	2526	A	N1-C6-N6	12.69	126.21	118.60
5	A	1201	A	N1-C6-N6	12.69	126.21	118.60
5	A	1179	A	N1-C6-N6	12.69	126.21	118.60
5	A	2691	A	N1-C6-N6	12.68	126.21	118.60
6	B	20	A	N1-C6-N6	12.68	126.21	118.60
5	A	2639	C	P-O3'-C3'	12.68	134.92	119.70
5	A	1115	A	N1-C6-N6	12.68	126.21	118.60
5	A	1067	A	N1-C6-N6	12.67	126.20	118.60
5	A	1534	A	N1-C6-N6	12.67	126.20	118.60
5	A	1695	A	N1-C6-N6	12.67	126.20	118.60
5	A	2083	A	N1-C6-N6	12.66	126.20	118.60
5	A	2499	G	N1-C6-O6	12.66	127.50	119.90
5	A	1222	A	N1-C6-N6	12.66	126.19	118.60
5	A	206	A	N1-C6-N6	12.65	126.19	118.60
5	A	1820	A	N1-C6-N6	12.64	126.19	118.60
5	A	2451	C	P-O3'-C3'	12.64	134.86	119.70
5	A	1802	A	N1-C6-N6	12.63	126.18	118.60
5	A	2241	A	N1-C6-N6	12.63	126.18	118.60
5	A	1606	A	N1-C6-N6	12.63	126.18	118.60
5	A	300	G	N1-C6-O6	12.62	127.47	119.90
5	A	2537	G	N1-C6-O6	12.61	127.47	119.90
5	A	2570	A	N1-C6-N6	12.60	126.16	118.60
5	A	2851	A	N1-C6-N6	12.60	126.16	118.60
5	A	2395	A	N1-C6-N6	12.60	126.16	118.60
5	A	185	A	P-O3'-C3'	12.59	134.81	119.70
5	A	1967	A	N1-C6-N6	12.59	126.16	118.60
5	A	418	A	N1-C6-N6	12.58	126.15	118.60
5	A	1675	A	N1-C6-N6	12.58	126.15	118.60
5	A	2027	A	N1-C6-N6	12.58	126.15	118.60
5	A	2912	A	N1-C6-N6	12.58	126.15	118.60
5	A	475	A	N1-C6-N6	12.57	126.14	118.60
5	A	1335	A	N1-C6-N6	12.56	126.14	118.60
5	A	2032	A	N1-C6-N6	12.56	126.14	118.60
5	A	1648	A	N1-C6-N6	12.56	126.14	118.60
5	A	1722	A	N1-C6-N6	12.56	126.14	118.60
5	A	1818	A	N1-C6-N6	12.56	126.14	118.60
5	A	1813	A	N1-C6-N6	12.56	126.13	118.60
5	A	1784	A	N1-C6-N6	12.55	126.13	118.60
5	A	2476	G	N1-C6-O6	12.54	127.42	119.90
5	A	1188	A	N1-C6-N6	12.53	126.12	118.60
5	A	2317	A	N1-C6-N6	12.53	126.12	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2786	A	N1-C6-N6	12.53	126.12	118.60
5	A	758	A	N1-C6-N6	12.52	126.11	118.60
5	A	2658	A	N1-C6-N6	12.51	126.11	118.60
5	A	44	A	N1-C6-N6	12.51	126.11	118.60
5	A	1743	A	N1-C6-N6	12.50	126.10	118.60
5	A	723	A	N1-C6-N6	12.50	126.10	118.60
5	A	2358	A	N1-C6-N6	12.50	126.10	118.60
5	A	2902	A	N1-C6-N6	12.50	126.10	118.60
5	A	1134	A	N1-C6-N6	12.49	126.10	118.60
5	A	1131	A	N1-C6-N6	12.49	126.09	118.60
5	A	2390	A	N1-C6-N6	12.49	126.09	118.60
5	A	1286	A	N1-C6-N6	12.49	126.09	118.60
5	A	2119	A	N1-C6-N6	12.49	126.09	118.60
5	A	732	A	N1-C6-N6	12.48	126.09	118.60
5	A	1020	A	N1-C6-N6	12.48	126.09	118.60
5	A	1852	G	N1-C6-O6	12.48	127.39	119.90
5	A	2343	A	N1-C6-N6	12.48	126.09	118.60
5	A	130	A	N1-C6-N6	12.47	126.08	118.60
5	A	727	A	N1-C6-N6	12.47	126.08	118.60
5	A	740	A	N1-C6-N6	12.47	126.08	118.60
5	A	2059	A	N1-C6-N6	12.47	126.08	118.60
5	A	1008	A	N1-C6-N6	12.46	126.08	118.60
5	A	1608	A	N1-C6-N6	12.46	126.08	118.60
5	A	2454	A	N1-C6-N6	12.46	126.08	118.60
5	A	2517	A	N1-C6-N6	12.46	126.08	118.60
5	A	1314	A	N1-C6-N6	12.46	126.08	118.60
5	A	366	A	N1-C6-N6	12.45	126.07	118.60
5	A	1098	C	P-O3'-C3'	12.44	134.62	119.70
5	A	770	A	N1-C6-N6	12.44	126.06	118.60
5	A	991	A	N1-C6-N6	12.43	126.06	118.60
5	A	1638	A	N1-C6-N6	12.43	126.06	118.60
5	A	2461	A	N1-C6-N6	12.43	126.06	118.60
5	A	324	A	N1-C6-N6	12.43	126.06	118.60
5	A	1679	A	N1-C6-N6	12.43	126.06	118.60
5	A	2619	A	N1-C6-N6	12.42	126.05	118.60
5	A	1224	A	N1-C6-N6	12.42	126.05	118.60
5	A	2627	A	N1-C6-N6	12.42	126.05	118.60
5	A	2643	A	N1-C6-N6	12.42	126.05	118.60
5	A	309	U	P-O3'-C3'	12.41	134.60	119.70
5	A	2735	A	N1-C6-N6	12.41	126.04	118.60
5	A	456	A	N1-C6-N6	12.40	126.04	118.60
5	A	2147	U	P-O3'-C3'	12.40	134.58	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1056	A	N1-C6-N6	12.40	126.04	118.60
5	A	1685	A	N1-C6-N6	12.40	126.04	118.60
5	A	602	G	N1-C6-O6	12.40	127.34	119.90
5	A	1468	G	N1-C6-O6	12.38	127.33	119.90
5	A	2694	A	N1-C6-N6	12.38	126.03	118.60
5	A	1517	A	N1-C6-N6	12.38	126.03	118.60
5	A	2700	A	N1-C6-N6	12.38	126.03	118.60
5	A	1189	A	N1-C6-N6	12.37	126.02	118.60
5	A	330	A	N1-C6-N6	12.37	126.02	118.60
5	A	222	A	N1-C6-N6	12.36	126.02	118.60
5	A	2762	A	N1-C6-N6	12.36	126.02	118.60
5	A	2402	A	N1-C6-N6	12.36	126.01	118.60
5	A	161	A	N1-C6-N6	12.35	126.01	118.60
5	A	2810	A	N1-C6-N6	12.35	126.01	118.60
5	A	1556	A	N1-C6-N6	12.35	126.01	118.60
5	A	2042	A	N1-C6-N6	12.34	126.01	118.60
5	A	1025	A	N1-C6-N6	12.34	126.00	118.60
5	A	2030	A	N1-C6-N6	12.34	126.00	118.60
5	A	2351	A	N1-C6-N6	12.34	126.00	118.60
5	A	2389	A	P-O3'-C3'	12.34	134.51	119.70
5	A	258	A	N1-C6-N6	12.34	126.00	118.60
5	A	1339	A	N1-C6-N6	12.34	126.00	118.60
5	A	634	A	N1-C6-N6	12.33	126.00	118.60
5	A	1034	A	N1-C6-N6	12.33	126.00	118.60
5	A	1014	A	N1-C6-N6	12.32	125.99	118.60
5	A	1989	A	N1-C6-N6	12.32	125.99	118.60
5	A	1106	U	P-O3'-C3'	12.32	134.48	119.70
5	A	1130	A	N1-C6-N6	12.31	125.99	118.60
5	A	173	A	N1-C6-N6	12.31	125.98	118.60
5	A	1858	A	N1-C6-N6	12.30	125.98	118.60
5	A	2405	A	N1-C6-N6	12.30	125.98	118.60
5	A	582	A	N1-C6-N6	12.30	125.98	118.60
5	A	2165	A	N1-C6-N6	12.30	125.98	118.60
5	A	179	A	P-O3'-C3'	12.29	134.45	119.70
5	A	67	A	N1-C6-N6	12.29	125.98	118.60
5	A	124	A	N1-C6-N6	12.29	125.97	118.60
5	A	1724	A	N1-C6-N6	12.28	125.97	118.60
5	A	2464	A	N1-C6-N6	12.28	125.97	118.60
5	A	2807	A	N1-C6-N6	12.28	125.97	118.60
5	A	343	A	N1-C6-N6	12.28	125.97	118.60
5	A	1445	A	N1-C6-N6	12.27	125.96	118.60
5	A	94	A	N1-C6-N6	12.27	125.96	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2463	A	N1-C6-N6	12.27	125.96	118.60
5	A	171	A	N1-C6-N6	12.27	125.96	118.60
5	A	254	A	N1-C6-N6	12.26	125.96	118.60
5	A	133	A	N1-C6-N6	12.26	125.96	118.60
5	A	1747	G	N1-C6-O6	12.26	127.25	119.90
5	A	476	A	N1-C6-N6	12.25	125.95	118.60
5	A	1042	A	N1-C6-N6	12.24	125.94	118.60
5	A	1815	A	P-O3'-C3'	12.24	134.39	119.70
5	A	667	A	N1-C6-N6	12.24	125.94	118.60
5	A	2834	A	N1-C6-N6	12.23	125.94	118.60
5	A	38	A	N1-C6-N6	12.23	125.94	118.60
5	A	867	A	N1-C6-N6	12.23	125.94	118.60
5	A	144	A	N1-C6-N6	12.23	125.94	118.60
5	A	147	G	N1-C6-O6	12.22	127.23	119.90
5	A	2629	A	N1-C6-N6	12.21	125.93	118.60
5	A	140	A	N1-C6-N6	12.21	125.93	118.60
5	A	1026	A	N1-C6-N6	12.21	125.93	118.60
5	A	1618	A	N1-C6-N6	12.21	125.93	118.60
5	A	2505	A	N1-C6-N6	12.21	125.92	118.60
5	A	964	A	N1-C6-N6	12.20	125.92	118.60
5	A	1287	A	N1-C6-N6	12.21	125.92	118.60
5	A	513	A	N1-C6-N6	12.20	125.92	118.60
5	A	1982	A	N1-C6-N6	12.20	125.92	118.60
5	A	2389	A	N1-C6-N6	12.20	125.92	118.60
5	A	866	A	N1-C6-N6	12.20	125.92	118.60
5	A	384	A	N1-C6-N6	12.20	125.92	118.60
5	A	1473	A	N1-C6-N6	12.20	125.92	118.60
5	A	656	A	N1-C6-N6	12.19	125.91	118.60
5	A	2767	A	N1-C6-N6	12.19	125.91	118.60
5	A	15	G	N1-C6-O6	12.19	127.21	119.90
5	A	673	A	N1-C6-N6	12.18	125.91	118.60
5	A	2362	A	N1-C6-N6	12.18	125.91	118.60
5	A	1406	A	N1-C6-N6	12.18	125.91	118.60
5	A	1778	A	N1-C6-N6	12.18	125.91	118.60
5	A	1480	A	N1-C6-N6	12.17	125.90	118.60
5	A	904	A	N1-C6-N6	12.17	125.90	118.60
5	A	2500	A	N1-C6-N6	12.17	125.90	118.60
5	A	1029	A	N1-C6-N6	12.17	125.90	118.60
5	A	763	A	N1-C6-N6	12.16	125.90	118.60
5	A	1097	A	N1-C6-N6	12.16	125.89	118.60
5	A	1194	A	N1-C6-N6	12.16	125.89	118.60
5	A	2034	A	N1-C6-N6	12.15	125.89	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1941	A	N1-C6-N6	12.15	125.89	118.60
5	A	2831	A	N1-C6-N6	12.15	125.89	118.60
5	A	345	A	N1-C6-N6	12.15	125.89	118.60
5	A	1243	A	N1-C6-N6	12.14	125.89	118.60
6	B	11	A	N1-C6-N6	12.14	125.88	118.60
5	A	762	A	N1-C6-N6	12.14	125.88	118.60
5	A	2143	A	N1-C6-N6	12.14	125.88	118.60
5	A	2303	A	N1-C6-N6	12.14	125.88	118.60
5	A	630	A	N1-C6-N6	12.13	125.88	118.60
5	A	95	A	N1-C6-N6	12.13	125.88	118.60
5	A	1284	A	N1-C6-N6	12.13	125.88	118.60
5	A	1398	A	N1-C6-N6	12.13	125.88	118.60
5	A	1814	A	N1-C6-N6	12.13	125.88	118.60
5	A	437	A	N1-C6-N6	12.13	125.88	118.60
5	A	259	A	N1-C6-N6	12.12	125.87	118.60
5	A	1981	A	N1-C6-N6	12.12	125.87	118.60
5	A	1617	A	N1-C6-N6	12.12	125.87	118.60
5	A	829	A	N1-C6-N6	12.12	125.87	118.60
5	A	310	C	P-O3'-C3'	12.11	134.24	119.70
5	A	431	A	N1-C6-N6	12.11	125.87	118.60
5	A	2316	A	N1-C6-N6	12.11	125.87	118.60
5	A	2462	A	N1-C6-N6	12.11	125.87	118.60
5	A	1027	A	N1-C6-N6	12.11	125.87	118.60
5	A	1767	A	N1-C6-N6	12.11	125.87	118.60
5	A	561	A	N1-C6-N6	12.11	125.86	118.60
5	A	1061	A	N1-C6-N6	12.11	125.86	118.60
5	A	2187	A	N1-C6-N6	12.11	125.86	118.60
5	A	2302	A	N1-C6-N6	12.11	125.86	118.60
5	A	2315	A	N1-C6-N6	12.11	125.86	118.60
5	A	314	A	N1-C6-N6	12.10	125.86	118.60
5	A	1614	A	N1-C6-N6	12.10	125.86	118.60
6	B	39	A	N1-C6-N6	12.10	125.86	118.60
5	A	1161	A	N1-C6-N6	12.10	125.86	118.60
5	A	971	A	N1-C6-N6	12.10	125.86	118.60
5	A	2787	A	N1-C6-N6	12.10	125.86	118.60
5	A	1697	A	N1-C6-N6	12.10	125.86	118.60
6	B	48	G	N1-C6-O6	12.10	127.16	119.90
5	A	226	A	N1-C6-N6	12.09	125.86	118.60
5	A	2066	A	N1-C6-N6	12.09	125.86	118.60
5	A	2387	A	N1-C6-N6	12.09	125.85	118.60
5	A	790	A	N1-C6-N6	12.09	125.85	118.60
5	A	1423	A	P-O3'-C3'	12.09	134.21	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	200	A	N1-C6-N6	12.08	125.85	118.60
5	A	364	A	N1-C6-N6	12.08	125.85	118.60
5	A	2511	A	N1-C6-N6	12.08	125.85	118.60
5	A	2769	A	N1-C6-N6	12.08	125.85	118.60
5	A	339	A	N1-C6-N6	12.08	125.85	118.60
5	A	369	A	N1-C6-N6	12.08	125.85	118.60
5	A	999	A	N1-C6-N6	12.08	125.85	118.60
5	A	1593	A	N1-C6-N6	12.08	125.85	118.60
5	A	2010	A	N1-C6-N6	12.08	125.85	118.60
5	A	1174	A	N1-C6-N6	12.07	125.84	118.60
5	A	1504	A	N1-C6-N6	12.07	125.84	118.60
5	A	2338	A	N1-C6-N6	12.07	125.84	118.60
5	A	2329	A	N1-C6-N6	12.07	125.84	118.60
5	A	1434	A	N1-C6-N6	12.07	125.84	118.60
5	A	1581	A	N1-C6-N6	12.07	125.84	118.60
5	A	1791	A	N1-C6-N6	12.06	125.84	118.60
5	A	1260	A	N1-C6-N6	12.06	125.84	118.60
5	A	2089	A	N1-C6-N6	12.06	125.84	118.60
5	A	1850	A	N1-C6-N6	12.06	125.83	118.60
5	A	2216	A	N1-C6-N6	12.06	125.83	118.60
5	A	91	A	N1-C6-N6	12.06	125.83	118.60
5	A	1266	A	N1-C6-N6	12.05	125.83	118.60
5	A	847	A	N1-C6-N6	12.05	125.83	118.60
5	A	1565	U	P-O3'-C3'	12.05	134.16	119.70
5	A	1848	A	N1-C6-N6	12.05	125.83	118.60
5	A	500	A	N1-C6-N6	12.05	125.83	118.60
5	A	1947	A	N1-C6-N6	12.05	125.83	118.60
5	A	2447	A	N1-C6-N6	12.05	125.83	118.60
5	A	1142	A	N1-C6-N6	12.05	125.83	118.60
5	A	2498	A	N1-C6-N6	12.05	125.83	118.60
5	A	2595	A	N1-C6-N6	12.05	125.83	118.60
5	A	185	A	N1-C6-N6	12.04	125.83	118.60
5	A	1453	A	N1-C6-N6	12.04	125.83	118.60
5	A	690	A	N1-C6-N6	12.04	125.82	118.60
5	A	889	A	N1-C6-N6	12.04	125.82	118.60
5	A	2295	A	N1-C6-N6	12.04	125.82	118.60
5	A	1113	A	N1-C6-N6	12.04	125.82	118.60
5	A	41	A	N1-C6-N6	12.03	125.82	118.60
5	A	179	A	N1-C6-N6	12.03	125.82	118.60
5	A	326	A	N1-C6-N6	12.03	125.82	118.60
5	A	1006	A	N1-C6-N6	12.03	125.81	118.60
5	A	183	A	N1-C6-N6	12.02	125.81	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1316	A	N1-C6-N6	12.02	125.81	118.60
5	A	2719	A	N1-C6-N6	12.02	125.81	118.60
5	A	1202	A	N1-C6-N6	12.02	125.81	118.60
5	A	2132	A	N1-C6-N6	12.02	125.81	118.60
5	A	1141	A	N1-C6-N6	12.01	125.81	118.60
5	A	1583	A	N1-C6-N6	12.01	125.81	118.60
5	A	2254	A	N1-C6-N6	12.01	125.81	118.60
5	A	2804	A	N1-C6-N6	12.01	125.81	118.60
5	A	2875	A	N1-C6-N6	12.01	125.81	118.60
5	A	251	G	N1-C6-O6	12.01	127.10	119.90
5	A	1078	A	N1-C6-N6	12.01	125.80	118.60
6	B	118	A	N1-C6-N6	12.01	125.80	118.60
5	A	841	A	N1-C6-N6	12.00	125.80	118.60
5	A	1966	A	N1-C6-N6	12.00	125.80	118.60
5	A	2220	A	N1-C6-N6	12.00	125.80	118.60
5	A	1426	A	N1-C6-N6	11.99	125.80	118.60
5	A	2745	U	O4'-C1'-N1	11.99	117.79	108.20
5	A	1965	A	N1-C6-N6	11.99	125.79	118.60
5	A	560	A	N1-C6-N6	11.98	125.79	118.60
6	B	114	A	N1-C6-N6	11.98	125.79	118.60
5	A	1956	A	N1-C6-N6	11.98	125.79	118.60
5	A	365	U	P-O3'-C3'	11.98	134.07	119.70
5	A	1269	A	N1-C6-N6	11.98	125.79	118.60
5	A	2071	A	N1-C6-N6	11.98	125.79	118.60
5	A	1553	A	N1-C6-N6	11.98	125.78	118.60
5	A	1149	A	N1-C6-N6	11.97	125.78	118.60
5	A	1302	A	N1-C6-N6	11.97	125.78	118.60
5	A	1555	A	N1-C6-N6	11.97	125.78	118.60
5	A	2468	A	N1-C6-N6	11.97	125.78	118.60
5	A	61	A	N1-C6-N6	11.97	125.78	118.60
5	A	939	G	N1-C6-O6	11.97	127.08	119.90
5	A	2708	A	N1-C6-N6	11.97	125.78	118.60
5	A	917	A	N1-C6-N6	11.96	125.78	118.60
5	A	2656	G	P-O3'-C3'	11.96	134.05	119.70
5	A	268	A	N1-C6-N6	11.96	125.78	118.60
5	A	2124	A	N1-C6-N6	11.96	125.78	118.60
5	A	1442	A	N1-C6-N6	11.96	125.77	118.60
5	A	1706	G	N1-C6-O6	11.96	127.07	119.90
5	A	337	A	N1-C6-N6	11.95	125.77	118.60
5	A	958	A	N1-C6-N6	11.95	125.77	118.60
5	A	1663	A	N1-C6-N6	11.95	125.77	118.60
5	A	2898	A	N1-C6-N6	11.95	125.77	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	177	G	N1-C6-O6	11.95	127.07	119.90
5	A	388	A	N1-C6-N6	11.95	125.77	118.60
5	A	436	A	N1-C6-N6	11.95	125.77	118.60
5	A	553	A	N1-C6-N6	11.95	125.77	118.60
5	A	1745	A	N1-C6-N6	11.95	125.77	118.60
5	A	618	A	N1-C6-N6	11.95	125.77	118.60
5	A	1405	A	N1-C6-N6	11.94	125.77	118.60
5	A	1096	A	N1-C6-N6	11.94	125.77	118.60
5	A	2000	A	N1-C6-N6	11.94	125.77	118.60
5	A	421	A	N1-C6-N6	11.94	125.76	118.60
5	A	1723	A	N1-C6-N6	11.94	125.76	118.60
5	A	1325	A	N1-C6-N6	11.94	125.76	118.60
5	A	318	A	N1-C6-N6	11.94	125.76	118.60
5	A	1173	A	N1-C6-N6	11.94	125.76	118.60
5	A	448	A	N1-C6-N6	11.93	125.76	118.60
5	A	10	A	N1-C6-N6	11.93	125.76	118.60
5	A	1293	A	N1-C6-N6	11.93	125.76	118.60
5	A	1816	A	N1-C6-N6	11.93	125.76	118.60
5	A	2078	A	N1-C6-N6	11.93	125.76	118.60
5	A	2846	A	N1-C6-N6	11.93	125.76	118.60
5	A	353	A	N1-C6-N6	11.93	125.75	118.60
5	A	1057	G	N1-C6-O6	11.93	127.06	119.90
5	A	851	A	N1-C6-N6	11.93	125.75	118.60
5	A	1930	A	N1-C6-N6	11.93	125.76	118.60
6	B	97	A	N1-C6-N6	11.93	125.76	118.60
5	A	1957	A	N1-C6-N6	11.92	125.75	118.60
5	A	2141	A	N1-C6-N6	11.92	125.75	118.60
5	A	2668	A	N1-C6-N6	11.92	125.75	118.60
5	A	2854	A	N1-C6-N6	11.92	125.75	118.60
5	A	1265	A	N1-C6-N6	11.92	125.75	118.60
5	A	538	A	N1-C6-N6	11.92	125.75	118.60
5	A	1942	A	N1-C6-N6	11.92	125.75	118.60
5	A	2590	A	N1-C6-N6	11.92	125.75	118.60
5	A	2722	A	N1-C6-N6	11.92	125.75	118.60
6	B	25	A	N1-C6-N6	11.91	125.75	118.60
5	A	517	A	N1-C6-N6	11.91	125.75	118.60
5	A	717	A	N1-C6-N6	11.91	125.74	118.60
5	A	808	A	N1-C6-N6	11.91	125.74	118.60
5	A	616	A	N1-C6-N6	11.90	125.74	118.60
5	A	1592	A	N1-C6-N6	11.90	125.74	118.60
5	A	2060	A	N1-C6-N6	11.90	125.74	118.60
5	A	2844	A	N1-C6-N6	11.90	125.74	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1456	A	N1-C6-N6	11.90	125.74	118.60
5	A	1845	A	N1-C6-N6	11.90	125.74	118.60
5	A	702	A	N1-C6-N6	11.90	125.74	118.60
5	A	1005	A	N1-C6-N6	11.90	125.74	118.60
5	A	1360	A	N1-C6-N6	11.90	125.74	118.60
5	A	1699	A	N1-C6-N6	11.90	125.74	118.60
5	A	2088	A	N1-C6-N6	11.90	125.74	118.60
5	A	139	A	N1-C6-N6	11.89	125.74	118.60
5	A	2407	A	N1-C6-N6	11.89	125.74	118.60
5	A	2689	A	N1-C6-N6	11.89	125.73	118.60
6	B	50	A	N1-C6-N6	11.89	125.73	118.60
5	A	2176	A	N1-C6-N6	11.88	125.73	118.60
5	A	2477	A	N1-C6-N6	11.88	125.73	118.60
5	A	659	A	N1-C6-N6	11.88	125.73	118.60
5	A	1760	A	N1-C6-N6	11.88	125.73	118.60
5	A	2022	U	O4'-C1'-N1	11.88	117.70	108.20
5	A	893	A	N1-C6-N6	11.88	125.73	118.60
5	A	2826	A	N1-C6-N6	11.88	125.72	118.60
5	A	935	A	N1-C6-N6	11.87	125.72	118.60
5	A	1066	A	N1-C6-N6	11.87	125.72	118.60
5	A	798	A	N1-C6-N6	11.87	125.72	118.60
5	A	2064	G	P-O3'-C3'	11.87	133.95	119.70
5	A	1423	A	N1-C6-N6	11.87	125.72	118.60
5	A	49	A	N1-C6-N6	11.87	125.72	118.60
5	A	1932	G	N1-C6-O6	11.87	127.02	119.90
5	A	2228	A	N1-C6-N6	11.87	125.72	118.60
5	A	117	A	N1-C6-N6	11.87	125.72	118.60
5	A	2117	A	N1-C6-N6	11.86	125.72	118.60
5	A	2163	A	N1-C6-N6	11.86	125.72	118.60
5	A	2298	A	N1-C6-N6	11.86	125.72	118.60
5	A	2087	A	N1-C6-N6	11.86	125.71	118.60
5	A	2091	A	N1-C6-N6	11.86	125.71	118.60
5	A	279	A	N1-C6-N6	11.85	125.71	118.60
5	A	1424	A	N1-C6-N6	11.85	125.71	118.60
5	A	1524	A	N1-C6-N6	11.85	125.71	118.60
5	A	2927	A	N1-C6-N6	11.85	125.71	118.60
5	A	637	A	N1-C6-N6	11.85	125.71	118.60
5	A	786	A	N1-C6-N6	11.85	125.71	118.60
5	A	1421	A	N1-C6-N6	11.85	125.71	118.60
5	A	2191	A	N1-C6-N6	11.85	125.71	118.60
6	B	113	A	N1-C6-N6	11.85	125.71	118.60
5	A	1579	A	N1-C6-N6	11.84	125.70	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1601	A	N1-C6-N6	11.84	125.70	118.60
5	A	840	A	N1-C6-N6	11.84	125.70	118.60
5	A	2332	G	N1-C6-O6	11.83	127.00	119.90
5	A	943	A	N1-C6-N6	11.82	125.69	118.60
5	A	2593	A	N1-C6-N6	11.82	125.69	118.60
5	A	1628	G	N1-C6-O6	11.81	126.99	119.90
5	A	412	A	N1-C6-N6	11.81	125.69	118.60
5	A	2155	A	N1-C6-N6	11.80	125.68	118.60
5	A	1686	A	N1-C6-N6	11.80	125.68	118.60
5	A	2683	A	N1-C6-N6	11.80	125.68	118.60
5	A	1233	A	N1-C6-N6	11.79	125.68	118.60
5	A	2779	A	N1-C6-N6	11.79	125.68	118.60
5	A	274	A	N1-C6-N6	11.79	125.68	118.60
5	A	2459	A	N1-C6-N6	11.79	125.67	118.60
5	A	2571	A	P-O5'-C5'	11.79	139.76	120.90
5	A	2160	U	P-O3'-C3'	11.79	133.84	119.70
5	A	678	A	N1-C6-N6	11.78	125.67	118.60
5	A	1812	A	N1-C6-N6	11.78	125.67	118.60
6	B	17	A	N1-C6-N6	11.78	125.67	118.60
5	A	1585	A	N1-C6-N6	11.78	125.67	118.60
5	A	1659	A	N1-C6-N6	11.78	125.67	118.60
5	A	2349	A	N1-C6-N6	11.78	125.67	118.60
5	A	2018	A	N1-C6-N6	11.77	125.66	118.60
5	A	73	A	N1-C6-N6	11.77	125.66	118.60
5	A	202	A	N1-C6-N6	11.77	125.66	118.60
5	A	828	A	N1-C6-N6	11.77	125.66	118.60
5	A	2547	A	N1-C6-N6	11.77	125.66	118.60
6	B	9	C	P-O3'-C3'	11.76	133.81	119.70
5	A	692	A	N1-C6-N6	11.76	125.66	118.60
5	A	2754	A	N1-C6-N6	11.76	125.66	118.60
5	A	882	A	N1-C6-N6	11.76	125.66	118.60
5	A	2848	A	N1-C6-N6	11.76	125.65	118.60
5	A	1003	A	N1-C6-N6	11.75	125.65	118.60
5	A	2164	A	N1-C6-N6	11.75	125.65	118.60
5	A	1797	A	N1-C6-N6	11.74	125.65	118.60
5	A	5	A	N1-C6-N6	11.74	125.64	118.60
5	A	574	A	N1-C6-N6	11.74	125.65	118.60
5	A	176	A	N1-C6-N6	11.74	125.64	118.60
5	A	1347	A	N1-C6-N6	11.74	125.64	118.60
5	A	2202	A	N1-C6-N6	11.73	125.64	118.60
5	A	2827	A	N1-C6-N6	11.73	125.64	118.60
5	A	1073	A	N1-C6-N6	11.73	125.64	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2542	A	N1-C6-N6	11.73	125.64	118.60
5	A	265	A	N1-C6-N6	11.73	125.64	118.60
5	A	796	A	N1-C6-N6	11.73	125.64	118.60
5	A	1995	A	N1-C6-N6	11.72	125.64	118.60
5	A	2111	A	N1-C6-N6	11.72	125.64	118.60
5	A	1516	A	N1-C6-N6	11.72	125.63	118.60
5	A	2356	A	N1-C6-N6	11.72	125.63	118.60
6	B	31	G	N1-C6-O6	11.72	126.93	119.90
5	A	2205	A	N1-C6-N6	11.71	125.63	118.60
5	A	1677	A	N1-C6-N6	11.71	125.63	118.60
5	A	6	A	N1-C6-N6	11.71	125.62	118.60
5	A	126	A	N1-C6-N6	11.71	125.62	118.60
5	A	653	A	N1-C6-N6	11.71	125.63	118.60
5	A	2876	A	N1-C6-N6	11.71	125.62	118.60
5	A	1667	A	N1-C6-N6	11.71	125.62	118.60
5	A	2673	A	N1-C6-N6	11.71	125.62	118.60
6	B	64	A	N1-C6-N6	11.70	125.62	118.60
5	A	1308	A	N1-C6-N6	11.70	125.62	118.60
5	A	1427	G	N1-C6-O6	11.70	126.92	119.90
5	A	1346	A	N1-C6-N6	11.69	125.62	118.60
5	A	2601	A	N1-C6-N6	11.68	125.61	118.60
5	A	1119	A	N1-C6-N6	11.67	125.60	118.60
5	A	2455	A	N1-C6-N6	11.67	125.61	118.60
5	A	2618	A	N1-C6-N6	11.67	125.60	118.60
5	A	407	A	N1-C6-N6	11.67	125.60	118.60
5	A	1388	A	N1-C6-N6	11.67	125.60	118.60
5	A	1540	A	N1-C6-N6	11.67	125.60	118.60
5	A	1432	A	N1-C6-N6	11.67	125.60	118.60
5	A	1691	A	N1-C6-N6	11.66	125.60	118.60
5	A	449	A	N1-C6-N6	11.65	125.59	118.60
5	A	1144	A	N1-C6-N6	11.65	125.59	118.60
5	A	1542	A	N1-C6-N6	11.65	125.59	118.60
5	A	2916	A	N1-C6-N6	11.65	125.59	118.60
5	A	689	A	N1-C6-N6	11.65	125.59	118.60
5	A	2005	C	O4'-C1'-N1	11.65	117.52	108.20
5	A	797	A	N1-C6-N6	11.64	125.59	118.60
5	A	957	A	N1-C6-N6	11.64	125.58	118.60
5	A	28	A	N1-C6-N6	11.64	125.58	118.60
5	A	182	C	O4'-C1'-N1	11.64	117.51	108.20
5	A	878	G	N1-C6-O6	11.64	126.88	119.90
6	B	117	A	N1-C6-N6	11.64	125.58	118.60
6	B	18	A	N1-C6-N6	11.64	125.58	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1582	U	P-O3'-C3'	11.63	133.66	119.70
5	A	2661	A	N1-C6-N6	11.63	125.58	118.60
5	A	2662	A	N1-C6-N6	11.63	125.58	118.60
5	A	65	A	N1-C6-N6	11.63	125.58	118.60
5	A	2152	A	N1-C6-N6	11.63	125.58	118.60
5	A	2307	A	N1-C6-N6	11.63	125.58	118.60
5	A	90	A	N1-C6-N6	11.62	125.57	118.60
5	A	1126	A	N1-C6-N6	11.62	125.57	118.60
5	A	1491	A	N1-C6-N6	11.62	125.57	118.60
5	A	2750	A	N1-C6-N6	11.62	125.57	118.60
5	A	479	A	N1-C6-N6	11.62	125.57	118.60
5	A	1123	A	N1-C6-N6	11.62	125.57	118.60
5	A	1100	A	N1-C6-N6	11.61	125.57	118.60
5	A	1615	A	N1-C6-N6	11.61	125.57	118.60
5	A	1627	A	N1-C6-N6	11.61	125.57	118.60
5	A	993	A	N1-C6-N6	11.61	125.57	118.60
5	A	486	A	N1-C6-N6	11.61	125.56	118.60
5	A	1789	A	N1-C6-N6	11.61	125.56	118.60
5	A	1464	A	N1-C6-N6	11.60	125.56	118.60
5	A	64	A	N1-C6-N6	11.59	125.56	118.60
5	A	1654	A	N1-C6-N6	11.59	125.56	118.60
5	A	2631	A	N1-C6-N6	11.59	125.56	118.60
5	A	469	A	N1-C6-N6	11.59	125.55	118.60
5	A	1210	A	N1-C6-N6	11.59	125.55	118.60
5	A	1557	G	N1-C6-O6	11.59	126.85	119.90
5	A	2819	A	N1-C6-N6	11.59	125.55	118.60
5	A	1735	A	N1-C6-N6	11.59	125.55	118.60
5	A	970	A	N1-C6-N6	11.58	125.55	118.60
5	A	2794	A	N1-C6-N6	11.58	125.55	118.60
5	A	175	G	N1-C6-O6	11.57	126.84	119.90
5	A	2150	G	N1-C6-O6	11.57	126.84	119.90
5	A	1642	G	N1-C6-O6	11.56	126.84	119.90
5	A	275	A	N1-C6-N6	11.56	125.53	118.60
5	A	799	A	N1-C6-N6	11.56	125.53	118.60
5	A	1046	A	N1-C6-N6	11.56	125.53	118.60
5	A	1499	A	N1-C6-N6	11.55	125.53	118.60
5	A	1197	A	N1-C6-N6	11.55	125.53	118.60
5	A	811	A	N1-C6-N6	11.55	125.53	118.60
5	A	2874	G	P-O3'-C3'	11.55	133.56	119.70
5	A	754	G	N1-C6-O6	11.54	126.82	119.90
5	A	1055	A	N1-C6-N6	11.54	125.52	118.60
5	A	2806	G	N1-C6-O6	11.54	126.82	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	322	A	N1-C6-N6	11.53	125.52	118.60
5	A	1404	A	N1-C6-N6	11.53	125.52	118.60
5	A	2094	C	O4'-C1'-N1	11.53	117.42	108.20
5	A	2256	A	N1-C6-N6	11.53	125.52	118.60
5	A	2375	A	N1-C6-N6	11.53	125.52	118.60
5	A	373	A	N1-C6-N6	11.53	125.52	118.60
5	A	470	A	N1-C6-N6	11.52	125.51	118.60
5	A	355	A	N1-C6-N6	11.52	125.51	118.60
5	A	1465	A	N1-C6-N6	11.52	125.51	118.60
5	A	1072	A	N1-C6-N6	11.52	125.51	118.60
5	A	410	G	N1-C6-O6	11.51	126.81	119.90
5	A	699	A	N1-C6-N6	11.51	125.51	118.60
5	A	1669	G	N1-C6-O6	11.51	126.80	119.90
5	A	2330	A	N1-C6-N6	11.50	125.50	118.60
5	A	231	A	N1-C6-N6	11.50	125.50	118.60
5	A	661	A	N1-C6-N6	11.50	125.50	118.60
5	A	1092	A	N1-C6-N6	11.49	125.50	118.60
5	A	518	A	N1-C6-N6	11.49	125.50	118.60
5	A	1447	C	O4'-C1'-N1	11.49	117.39	108.20
5	A	1831	A	N1-C6-N6	11.48	125.49	118.60
5	A	2327	A	N1-C6-N6	11.48	125.49	118.60
5	A	1714	A	N1-C6-N6	11.48	125.49	118.60
5	A	207	A	N1-C6-N6	11.47	125.48	118.60
5	A	2080	A	N1-C6-N6	11.47	125.48	118.60
5	A	835	A	N1-C6-N6	11.47	125.48	118.60
5	A	2845	A	N1-C6-N6	11.47	125.48	118.60
5	A	2365	A	N1-C6-N6	11.47	125.48	118.60
5	A	1876	A	N1-C6-N6	11.46	125.48	118.60
5	A	2537	G	C5-C6-O6	-11.46	121.72	128.60
5	A	530	A	N1-C6-N6	11.46	125.47	118.60
6	B	105	A	N1-C6-N6	11.46	125.47	118.60
5	A	1485	A	N1-C6-N6	11.45	125.47	118.60
5	A	896	A	N1-C6-N6	11.45	125.47	118.60
6	B	73	G	N1-C6-O6	11.45	126.77	119.90
5	A	2594	A	N1-C6-N6	11.45	125.47	118.60
5	A	52	A	N1-C6-N6	11.44	125.47	118.60
5	A	2227	A	N1-C6-N6	11.44	125.47	118.60
5	A	2777	A	N1-C6-N6	11.44	125.46	118.60
5	A	354	A	N1-C6-N6	11.43	125.46	118.60
5	A	679	A	N1-C6-N6	11.43	125.46	118.60
5	A	683	A	N1-C6-N6	11.43	125.45	118.60
5	A	2421	A	N1-C6-N6	11.43	125.46	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1253	A	N1-C6-N6	11.42	125.45	118.60
5	A	2909	U	O4'-C1'-N1	11.42	117.34	108.20
5	A	759	G	N1-C6-O6	11.42	126.75	119.90
5	A	1091	U	P-O3'-C3'	11.41	133.40	119.70
5	A	2532	A	N1-C6-N6	11.40	125.44	118.60
6	B	76	A	N1-C6-N6	11.40	125.44	118.60
6	B	37	A	N1-C6-N6	11.40	125.44	118.60
5	A	480	C	O4'-C1'-N1	11.38	117.31	108.20
5	A	658	A	N1-C6-N6	11.38	125.43	118.60
5	A	674	G	N1-C6-O6	11.38	126.72	119.90
5	A	1504	A	O4'-C1'-N9	11.38	117.30	108.20
5	A	1312	A	N1-C6-N6	11.37	125.42	118.60
5	A	1929	A	N1-C6-N6	11.37	125.42	118.60
5	A	2168	G	N1-C6-O6	11.37	126.72	119.90
5	A	199	A	N1-C6-N6	11.36	125.42	118.60
5	A	1054	A	N1-C6-N6	11.36	125.42	118.60
5	A	334	G	N1-C6-O6	11.36	126.72	119.90
5	A	1375	A	N1-C6-N6	11.36	125.42	118.60
5	A	715	A	N1-C6-N6	11.36	125.41	118.60
5	A	1815	A	N1-C6-N6	11.35	125.41	118.60
5	A	346	G	N1-C6-O6	11.34	126.70	119.90
5	A	2021	G	P-O3'-C3'	11.34	133.30	119.70
5	A	2381	A	N1-C6-N6	11.34	125.40	118.60
5	A	168	A	N1-C6-N6	11.33	125.40	118.60
5	A	978	A	N1-C6-N6	11.32	125.39	118.60
5	A	2616	A	N1-C6-N6	11.32	125.39	118.60
5	A	219	A	N1-C6-N6	11.32	125.39	118.60
5	A	1541	A	N1-C6-N6	11.32	125.39	118.60
5	A	494	A	N1-C6-N6	11.32	125.39	118.60
5	A	1418	U	P-O3'-C3'	11.31	133.28	119.70
5	A	2881	G	N1-C6-O6	11.31	126.69	119.90
5	A	916	G	N1-C6-O6	11.30	126.68	119.90
5	A	547	A	N1-C6-N6	11.29	125.37	118.60
5	A	2686	A	N1-C6-N6	11.28	125.37	118.60
5	A	477	A	N1-C6-N6	11.28	125.37	118.60
5	A	490	A	N1-C6-N6	11.27	125.36	118.60
5	A	822	G	N1-C6-O6	11.27	126.66	119.90
5	A	2560	A	N1-C6-N6	11.27	125.36	118.60
6	B	102	A	N1-C6-N6	11.26	125.36	118.60
5	A	1116	A	N1-C6-N6	11.26	125.35	118.60
5	A	147	G	C5-C6-O6	-11.25	121.85	128.60
5	A	411	G	N1-C6-O6	11.24	126.64	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	836	A	N1-C6-N6	11.23	125.34	118.60
5	A	2417	A	N1-C6-N6	11.23	125.34	118.60
5	A	1246	G	N1-C6-O6	11.23	126.64	119.90
5	A	1393	A	N1-C6-N6	11.23	125.34	118.60
5	A	2296	A	N1-C6-N6	11.23	125.34	118.60
5	A	244	A	N1-C6-N6	11.22	125.33	118.60
5	A	677	A	N1-C6-N6	11.22	125.33	118.60
5	A	1851	G	N1-C6-O6	11.22	126.63	119.90
5	A	996	G	N1-C6-O6	11.21	126.62	119.90
5	A	1729	C	O4'-C1'-N1	11.20	117.16	108.20
5	A	1536	A	N1-C6-N6	11.20	125.32	118.60
5	A	2677	G	N1-C6-O6	11.20	126.62	119.90
5	A	2762	A	P-O5'-C5'	11.20	138.81	120.90
5	A	125	A	N1-C6-N6	11.19	125.31	118.60
5	A	1390	C	O4'-C1'-N1	11.19	117.15	108.20
5	A	2574	G	N1-C6-O6	11.19	126.61	119.90
5	A	1628	G	O4'-C1'-N9	11.18	117.14	108.20
5	A	2562	U	P-O3'-C3'	11.17	133.11	119.70
5	A	1524	A	O4'-C1'-N9	11.15	117.12	108.20
5	A	2009	G	N1-C6-O6	11.15	126.59	119.90
5	A	2877	G	N1-C6-O6	11.15	126.59	119.90
5	A	2497	A	N1-C6-N6	11.15	125.29	118.60
5	A	426	G	N1-C6-O6	11.13	126.58	119.90
5	A	1537	G	N1-C6-O6	11.11	126.57	119.90
5	A	2311	G	P-O3'-C3'	11.11	133.03	119.70
5	A	2438	G	N1-C6-O6	11.11	126.57	119.90
5	A	1021	A	N1-C6-N6	11.11	125.27	118.60
5	A	1874	G	N1-C6-O6	11.10	126.56	119.90
5	A	2499	G	C5-C6-O6	-11.10	121.94	128.60
5	A	148	G	N1-C6-O6	11.10	126.56	119.90
5	A	2476	G	C5-C6-O6	-11.10	121.94	128.60
5	A	752	A	N1-C6-N6	11.08	125.25	118.60
5	A	376	A	N1-C6-N6	11.07	125.25	118.60
5	A	2133	C	O4'-C1'-N1	11.07	117.06	108.20
5	A	300	G	C5-C6-O6	-11.06	121.96	128.60
5	A	693	G	N1-C6-O6	11.06	126.54	119.90
5	A	1074	A	N1-C6-N6	11.06	125.24	118.60
5	A	2026	A	N1-C6-N6	11.06	125.24	118.60
5	A	2257	G	N1-C6-O6	11.06	126.53	119.90
5	A	2573	G	N1-C6-O6	11.06	126.53	119.90
5	A	2816	C	O4'-C1'-N1	11.05	117.04	108.20
5	A	553	A	P-O3'-C3'	11.05	132.96	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1305	A	N1-C6-N6	11.03	125.22	118.60
5	A	1680	A	N1-C6-N6	11.02	125.21	118.60
5	A	830	A	N1-C6-N6	11.02	125.21	118.60
5	A	2077	G	N1-C6-O6	11.01	126.51	119.90
5	A	357	G	N1-C6-O6	11.01	126.51	119.90
5	A	1525	G	N1-C6-O6	11.00	126.50	119.90
5	A	2513	G	N1-C6-O6	11.00	126.50	119.90
5	A	1788	A	N1-C6-N6	10.98	125.19	118.60
5	A	2793	A	N1-C6-N6	10.97	125.19	118.60
5	A	2275	G	N1-C6-O6	10.96	126.48	119.90
5	A	194	A	N1-C6-N6	10.95	125.17	118.60
5	A	1160	G	N1-C6-O6	10.95	126.47	119.90
5	A	2702	G	N1-C6-O6	10.95	126.47	119.90
5	A	1392	A	N1-C6-N6	10.94	125.16	118.60
5	A	2444	G	N1-C6-O6	10.94	126.46	119.90
5	A	1051	C	O4'-C1'-N1	10.93	116.95	108.20
5	A	1948	A	N1-C6-N6	10.92	125.16	118.60
5	A	2897	G	N1-C6-O6	10.92	126.45	119.90
5	A	868	A	N1-C6-N6	10.92	125.15	118.60
6	B	51	A	N1-C6-N6	10.92	125.15	118.60
5	A	391	A	N1-C6-N6	10.91	125.14	118.60
5	A	2252	A	N1-C6-N6	10.90	125.14	118.60
5	A	162	A	N1-C6-N6	10.89	125.14	118.60
5	A	629	G	O4'-C1'-N9	10.89	116.91	108.20
5	A	1506	A	N1-C6-N6	10.88	125.13	118.60
5	A	237	U	O4'-C1'-N1	10.87	116.90	108.20
5	A	1932	G	C5-C6-O6	-10.88	122.08	128.60
5	A	1381	A	N1-C6-N6	10.87	125.12	118.60
5	A	389	A	N1-C6-N6	10.87	125.12	118.60
5	A	921	G	N1-C6-O6	10.87	126.42	119.90
6	B	81	G	N1-C6-O6	10.86	126.42	119.90
5	A	428	A	N1-C6-N6	10.86	125.11	118.60
5	A	647	A	N1-C6-N6	10.85	125.11	118.60
5	A	1877	A	N1-C6-N6	10.85	125.11	118.60
5	A	652	A	N1-C6-N6	10.85	125.11	118.60
5	A	24	G	N1-C6-O6	10.84	126.41	119.90
5	A	1043	G	N1-C6-O6	10.84	126.41	119.90
5	A	1076	G	N1-C6-O6	10.84	126.41	119.90
5	A	2805	A	N1-C6-N6	10.84	125.10	118.60
5	A	824	G	N1-C6-O6	10.84	126.40	119.90
5	A	1254	A	N1-C6-N6	10.84	125.10	118.60
5	A	180	G	N1-C6-O6	10.83	126.40	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2386	U	O4'-C1'-N1	10.82	116.86	108.20
5	A	2396	G	N1-C6-O6	10.82	126.39	119.90
5	A	2401	G	N1-C6-O6	10.82	126.39	119.90
5	A	2246	G	N1-C6-O6	10.80	126.38	119.90
5	A	2654	G	N1-C6-O6	10.80	126.38	119.90
5	A	453	G	N1-C6-O6	10.80	126.38	119.90
5	A	2340	A	N1-C6-N6	10.79	125.07	118.60
5	A	2049	A	N1-C6-N6	10.78	125.07	118.60
5	A	2510	G	N1-C6-O6	10.78	126.37	119.90
5	A	2324	C	O4'-C1'-N1	10.77	116.82	108.20
5	A	236	A	N1-C6-N6	10.77	125.06	118.60
5	A	1175	A	N1-C6-N6	10.77	125.06	118.60
5	A	2449	C	O4'-C1'-N1	10.76	116.81	108.20
5	A	695	G	N1-C6-O6	10.76	126.36	119.90
5	A	2553	G	N1-C6-O6	10.75	126.35	119.90
5	A	12	A	N1-C6-N6	10.75	125.05	118.60
5	A	1721	A	P-O5'-C5'	10.75	138.09	120.90
5	A	897	G	C5-C6-O6	-10.74	122.16	128.60
5	A	642	G	N1-C6-O6	10.73	126.34	119.90
5	A	729	G	N1-C6-O6	10.73	126.34	119.90
5	A	998	G	N1-C6-O6	10.73	126.34	119.90
5	A	408	G	N1-C6-O6	10.73	126.34	119.90
5	A	30	G	N1-C6-O6	10.72	126.33	119.90
5	A	1082	G	N1-C6-O6	10.72	126.33	119.90
5	A	382	G	N1-C6-O6	10.71	126.33	119.90
5	A	520	G	N1-C6-O6	10.71	126.33	119.90
5	A	2599	G	N1-C6-O6	10.70	126.32	119.90
5	A	1227	G	O4'-C1'-N9	10.70	116.76	108.20
5	A	2835	A	N1-C6-N6	10.70	125.02	118.60
5	A	1012	G	N1-C6-O6	10.69	126.32	119.90
5	A	1075	A	N1-C6-N6	10.69	125.02	118.60
5	A	2840	C	O4'-C1'-N1	10.69	116.75	108.20
5	A	524	A	N1-C6-N6	10.69	125.01	118.60
5	A	2339	A	N1-C6-N6	10.69	125.01	118.60
5	A	2060	A	P-O3'-C3'	10.68	132.52	119.70
5	A	2101	G	N1-C6-O6	10.68	126.31	119.90
5	A	1833	G	N1-C6-O6	10.68	126.31	119.90
5	A	1562	A	N1-C6-N6	10.68	125.01	118.60
5	A	1707	U	O4'-C1'-N1	10.66	116.72	108.20
6	B	56	A	N1-C6-N6	10.65	124.99	118.60
5	A	1230	A	N1-C6-N6	10.64	124.98	118.60
5	A	2518	G	N1-C6-O6	10.64	126.28	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	80	G	N1-C6-O6	10.64	126.28	119.90
5	A	1263	G	N1-C6-O6	10.64	126.28	119.90
5	A	1340	A	N1-C6-N6	10.64	124.98	118.60
5	A	2248	G	N1-C6-O6	10.64	126.28	119.90
5	A	603	G	N1-C6-O6	10.63	126.28	119.90
5	A	578	A	N1-C6-N6	10.62	124.97	118.60
5	A	429	A	N1-C6-N6	10.62	124.97	118.60
5	A	1428	G	N1-C6-O6	10.62	126.27	119.90
5	A	1496	G	N1-C6-O6	10.62	126.27	119.90
5	A	251	G	C5-C6-O6	-10.62	122.23	128.60
5	A	586	C	O4'-C1'-N1	10.61	116.69	108.20
5	A	593	A	N1-C6-N6	10.61	124.96	118.60
5	A	987	A	N1-C6-N6	10.60	124.96	118.60
5	A	303	G	N1-C6-O6	10.60	126.26	119.90
5	A	53	A	N1-C6-N6	10.60	124.96	118.60
5	A	1575	A	N1-C6-N6	10.60	124.96	118.60
5	A	659	A	P-O3'-C3'	10.59	132.41	119.70
5	A	1036	A	N1-C6-N6	10.59	124.96	118.60
5	A	1926	G	N1-C6-O6	10.59	126.26	119.90
6	B	16	G	N1-C6-O6	10.59	126.25	119.90
5	A	2721	C	O4'-C1'-N1	10.59	116.67	108.20
5	A	907	U	O4'-C1'-N1	10.58	116.67	108.20
6	B	106	C	O4'-C1'-N1	10.58	116.67	108.20
5	A	220	A	N1-C6-N6	10.57	124.94	118.60
6	B	103	G	N1-C6-O6	10.57	126.24	119.90
5	A	2904	A	C5-C6-N6	-10.57	115.25	123.70
5	A	1323	A	N1-C6-N6	10.56	124.94	118.60
5	A	804	G	N1-C6-O6	10.56	126.23	119.90
5	A	1999	A	N1-C6-N6	10.55	124.93	118.60
5	A	2297	A	N1-C6-N6	10.53	124.92	118.60
5	A	2758	G	N1-C6-O6	10.54	126.22	119.90
5	A	2200	A	N1-C6-N6	10.53	124.92	118.60
5	A	2795	G	N1-C6-O6	10.53	126.22	119.90
5	A	1448	U	P-O3'-C3'	10.52	132.32	119.70
5	A	1311	G	N1-C6-O6	10.52	126.21	119.90
5	A	1168	G	N1-C6-O6	10.52	126.21	119.90
5	A	1581	A	O4'-C1'-N9	10.52	116.61	108.20
5	A	519	A	N1-C6-N6	10.51	124.91	118.60
5	A	2788	G	N1-C6-O6	10.51	126.21	119.90
5	A	1631	A	N1-C6-N6	10.51	124.91	118.60
5	A	2438	G	C5-C6-O6	-10.51	122.30	128.60
5	A	16	G	N1-C6-O6	10.50	126.20	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	906	G	P-O3'-C3'	10.50	132.31	119.70
5	A	2893	A	N1-C6-N6	10.50	124.90	118.60
5	A	2484	G	N1-C6-O6	10.50	126.20	119.90
5	A	1945	A	N1-C6-N6	10.49	124.89	118.60
5	A	1220	G	P-O3'-C3'	10.48	132.28	119.70
5	A	819	G	N1-C6-O6	10.48	126.19	119.90
5	A	2628	G	N1-C6-O6	10.48	126.19	119.90
5	A	765	A	N1-C6-N6	10.47	124.88	118.60
5	A	2235	G	N1-C6-O6	10.47	126.18	119.90
5	A	537	A	N1-C6-N6	10.46	124.88	118.60
5	A	1538	G	N1-C6-O6	10.46	126.18	119.90
5	A	1698	G	N1-C6-O6	10.46	126.17	119.90
5	A	1021	A	P-O3'-C3'	10.45	132.24	119.70
5	A	2714	G	N1-C6-O6	10.44	126.17	119.90
5	A	2905	C	O4'-C1'-N1	10.44	116.56	108.20
5	A	738	C	O4'-C1'-N1	10.44	116.55	108.20
5	A	2480	A	N1-C6-N6	10.44	124.86	118.60
5	A	225	A	N1-C6-N6	10.44	124.86	118.60
5	A	374	A	N1-C6-N6	10.44	124.86	118.60
5	A	883	G	N1-C6-O6	10.44	126.16	119.90
5	A	1294	A	N1-C6-N6	10.44	124.86	118.60
5	A	1438	C	O4'-C1'-N1	10.43	116.54	108.20
5	A	2698	G	N1-C6-O6	10.42	126.15	119.90
5	A	2879	G	N1-C6-O6	10.42	126.15	119.90
5	A	1936	G	N1-C6-O6	10.42	126.15	119.90
5	A	2425	G	N1-C6-O6	10.41	126.15	119.90
5	A	1518	G	N1-C6-O6	10.41	126.15	119.90
5	A	973	G	N1-C6-O6	10.41	126.14	119.90
5	A	871	G	N1-C6-O6	10.40	126.14	119.90
5	A	1500	U	P-O3'-C3'	10.39	132.17	119.70
5	A	2765	G	N1-C6-O6	10.38	126.13	119.90
5	A	851	A	P-O3'-C3'	10.38	132.16	119.70
5	A	876	A	N1-C6-N6	10.38	124.83	118.60
5	A	2249	G	N1-C6-O6	10.38	126.12	119.90
5	A	1768	A	N1-C6-N6	10.36	124.82	118.60
5	A	2545	G	N1-C6-O6	10.35	126.11	119.90
5	A	2617	G	N1-C6-O6	10.35	126.11	119.90
5	A	1998	A	N1-C6-N6	10.35	124.81	118.60
6	B	71	A	N1-C6-N6	10.35	124.81	118.60
6	B	31	G	C5-C6-O6	-10.35	122.39	128.60
5	A	385	G	N1-C6-O6	10.34	126.11	119.90
5	A	2413	G	N1-C6-O6	10.34	126.11	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2563	C	O4'-C1'-N1	10.34	116.47	108.20
5	A	2570	A	P-O3'-C3'	10.34	132.11	119.70
5	A	2366	G	N1-C6-O6	10.34	126.10	119.90
5	A	106	G	N1-C6-O6	10.33	126.10	119.90
5	A	107	G	C5-C6-O6	-10.31	122.41	128.60
5	A	177	G	C5-C6-O6	-10.31	122.41	128.60
5	A	2004	G	N1-C6-O6	10.31	126.09	119.90
5	A	894	A	N1-C6-N6	10.31	124.78	118.60
5	A	70	G	N1-C6-O6	10.30	126.08	119.90
5	A	1557	G	C5-C6-O6	-10.30	122.42	128.60
5	A	2578	G	N1-C6-O6	10.30	126.08	119.90
5	A	746	A	N1-C6-N6	10.30	124.78	118.60
5	A	1624	U	O4'-C1'-N1	10.30	116.44	108.20
5	A	1174	A	P-O3'-C3'	10.29	132.05	119.70
5	A	325	A	N1-C6-N6	10.29	124.77	118.60
5	A	2552	G	N1-C6-O6	10.29	126.07	119.90
5	A	15	G	C5-C6-O6	-10.28	122.43	128.60
5	A	707	G	N1-C6-O6	10.27	126.06	119.90
5	A	1166	G	N1-C6-O6	10.27	126.06	119.90
5	A	2290	C	O4'-C1'-N1	10.27	116.42	108.20
5	A	956	A	N1-C6-N6	10.26	124.76	118.60
5	A	1184	G	N1-C6-O6	10.26	126.06	119.90
5	A	2361	C	O4'-C1'-N1	10.26	116.41	108.20
5	A	2732	C	C2-N1-C1'	10.26	130.09	118.80
5	A	417	G	N1-C6-O6	10.26	126.06	119.90
5	A	1085	G	N1-C6-O6	10.26	126.05	119.90
5	A	742	G	N1-C6-O6	10.24	126.05	119.90
5	A	2092	C	O4'-C1'-N1	10.24	116.39	108.20
5	A	1694	G	N1-C6-O6	10.24	126.05	119.90
5	A	596	G	N1-C6-O6	10.23	126.04	119.90
5	A	815	G	N1-C6-O6	10.22	126.03	119.90
5	A	568	G	N1-C6-O6	10.22	126.03	119.90
5	A	720	C	O4'-C1'-N1	10.22	116.38	108.20
5	A	121	G	N1-C6-O6	10.21	126.03	119.90
5	A	1468	G	C5-C6-O6	-10.21	122.47	128.60
5	A	17	G	N1-C6-O6	10.21	126.03	119.90
5	A	1793	G	N1-C6-O6	10.21	126.03	119.90
5	A	1394	G	N1-C6-O6	10.21	126.02	119.90
5	A	1852	G	C5-C6-O6	-10.20	122.48	128.60
5	A	2367	G	N1-C6-O6	10.20	126.02	119.90
5	A	224	A	N1-C6-N6	10.20	124.72	118.60
5	A	988	G	N1-C6-O6	10.20	126.02	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	564	G	N1-C6-O6	10.19	126.01	119.90
5	A	1319	G	N1-C6-O6	10.19	126.02	119.90
5	A	833	C	O4'-C1'-N1	10.19	116.35	108.20
5	A	1664	G	N1-C6-O6	10.19	126.01	119.90
5	A	575	A	N1-C6-N6	10.18	124.71	118.60
5	A	1318	G	N1-C6-O6	10.16	126.00	119.90
5	A	344	G	N1-C6-O6	10.16	126.00	119.90
5	A	597	G	N1-C6-O6	10.16	125.99	119.90
5	A	1281	C	O4'-C1'-N1	10.15	116.32	108.20
5	A	39	C	O4'-C1'-N1	10.14	116.32	108.20
5	A	2808	U	P-O3'-C3'	10.14	131.87	119.70
5	A	759	G	C5-C6-O6	-10.13	122.52	128.60
5	A	2771	G	N1-C6-O6	10.13	125.98	119.90
5	A	280	G	C5-C6-O6	-10.13	122.52	128.60
5	A	2737	G	N1-C6-O6	10.11	125.97	119.90
5	A	1132	A	N1-C6-N6	10.11	124.67	118.60
5	A	1400	G	N1-C6-O6	10.11	125.97	119.90
5	A	2023	C	O4'-C1'-N1	10.10	116.28	108.20
5	A	1734	A	N1-C6-N6	10.10	124.66	118.60
5	A	602	G	C5-C6-O6	-10.10	122.54	128.60
5	A	718	C	O4'-C1'-N1	10.09	116.27	108.20
5	A	2014	G	N1-C6-O6	10.09	125.95	119.90
5	A	1299	G	N1-C6-O6	10.09	125.95	119.90
5	A	410	G	C5-C6-O6	-10.08	122.55	128.60
5	A	1414	G	N1-C6-O6	10.08	125.95	119.90
5	A	1736	C	O4'-C1'-N1	10.08	116.26	108.20
6	B	112	C	O4'-C1'-N1	10.08	116.27	108.20
5	A	2116	G	N1-C6-O6	10.08	125.95	119.90
6	B	115	G	N1-C6-O6	10.08	125.95	119.90
5	A	2408	G	N1-C6-O6	10.08	125.95	119.90
5	A	255	G	N1-C6-O6	10.07	125.94	119.90
5	A	1871	G	N1-C6-O6	10.07	125.94	119.90
5	A	2429	G	N1-C6-O6	10.07	125.94	119.90
5	A	709	G	N1-C6-O6	10.07	125.94	119.90
5	A	1487	G	N1-C6-O6	10.07	125.94	119.90
5	A	636	G	N1-C6-O6	10.07	125.94	119.90
5	A	2271	G	N1-C6-O6	10.07	125.94	119.90
5	A	1317	G	N1-C6-O6	10.07	125.94	119.90
5	A	1367	G	O4'-C1'-N9	10.07	116.25	108.20
5	A	1203	G	N1-C6-O6	10.06	125.94	119.90
5	A	19	G	N1-C6-O6	10.06	125.94	119.90
5	A	588	C	O4'-C1'-N1	10.06	116.25	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2470	C	O4'-C1'-N1	10.06	116.25	108.20
5	A	483	C	O4'-C1'-N1	10.06	116.25	108.20
5	A	2473	G	N1-C6-O6	10.05	125.93	119.90
5	A	2613	U	O4'-C1'-N1	10.05	116.24	108.20
5	A	36	G	N1-C6-O6	10.05	125.93	119.90
5	A	693	G	C5-C6-O6	-10.05	122.57	128.60
5	A	2156	G	N1-C6-O6	10.05	125.93	119.90
5	A	2285	G	N1-C6-O6	10.05	125.93	119.90
5	A	1200	G	N1-C6-O6	10.05	125.93	119.90
5	A	911	G	N1-C6-O6	10.04	125.93	119.90
5	A	2538	G	N1-C6-O6	10.04	125.93	119.90
5	A	1049	G	N1-C6-O6	10.04	125.93	119.90
5	A	2562	U	O4'-C1'-N1	10.04	116.23	108.20
5	A	1105	G	N1-C6-O6	10.04	125.92	119.90
5	A	2806	G	C5-C6-O6	-10.04	122.58	128.60
5	A	984	G	N1-C6-O6	10.03	125.92	119.90
5	A	2016	G	N1-C6-O6	10.03	125.92	119.90
5	A	1206	G	N1-C6-O6	10.03	125.92	119.90
5	A	2485	C	O4'-C1'-N1	10.02	116.22	108.20
5	A	2474	G	N1-C6-O6	10.02	125.91	119.90
5	A	1330	C	O4'-C1'-N1	10.02	116.21	108.20
5	A	2354	G	N1-C6-O6	10.01	125.91	119.90
5	A	472	G	N1-C6-O6	10.01	125.91	119.90
5	A	710	G	N1-C6-O6	10.01	125.91	119.90
5	A	996	G	C5-C6-O6	-10.00	122.60	128.60
5	A	2236	C	O4'-C1'-N1	9.99	116.19	108.20
5	A	680	G	N1-C6-O6	9.99	125.89	119.90
5	A	1439	U	O4'-C1'-N1	9.99	116.19	108.20
5	A	2761	G	N1-C6-O6	9.99	125.89	119.90
5	A	2864	G	N1-C6-O6	9.98	125.89	119.90
5	A	120	G	N1-C6-O6	9.98	125.89	119.90
5	A	2428	G	N1-C6-O6	9.98	125.89	119.90
5	A	2751	G	N1-C6-O6	9.98	125.89	119.90
5	A	754	G	C5-C6-O6	-9.98	122.61	128.60
5	A	2908	A	C5-C6-N6	-9.98	115.72	123.70
5	A	1951	G	N1-C6-O6	9.97	125.89	119.90
5	A	1970	C	O4'-C1'-N1	9.97	116.18	108.20
5	A	1273	G	N1-C6-O6	9.97	125.88	119.90
5	A	1426	A	O4'-C1'-N9	9.97	116.18	108.20
5	A	283	G	N1-C6-O6	9.97	125.88	119.90
5	A	1805	G	N1-C6-O6	9.97	125.88	119.90
5	A	2712	C	O4'-C1'-N1	9.97	116.17	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2881	G	C5-C6-O6	-9.97	122.62	128.60
5	A	2514	G	N1-C6-O6	9.95	125.87	119.90
5	A	2150	G	C5-C6-O6	-9.95	122.63	128.60
5	A	248	G	N1-C6-O6	9.94	125.86	119.90
5	A	1315	G	N1-C6-O6	9.94	125.86	119.90
6	B	100	G	N1-C6-O6	9.94	125.86	119.90
5	A	2259	G	N1-C6-O6	9.94	125.86	119.90
5	A	193	A	N1-C6-N6	9.93	124.56	118.60
5	A	1628	G	C5-C6-O6	-9.93	122.64	128.60
5	A	2148	A	N1-C6-N6	9.93	124.56	118.60
5	A	583	G	N1-C6-O6	9.93	125.86	119.90
5	A	1544	C	O4'-C1'-N1	9.93	116.14	108.20
6	B	14	G	N1-C6-O6	9.93	125.86	119.90
5	A	572	A	O4'-C1'-N9	9.92	116.14	108.20
5	A	1752	G	N1-C6-O6	9.92	125.85	119.90
5	A	1063	G	N1-C6-O6	9.92	125.85	119.90
5	A	102	A	N1-C6-N6	9.91	124.55	118.60
5	A	1772	C	O4'-C1'-N1	9.91	116.13	108.20
5	A	929	G	N1-C6-O6	9.91	125.84	119.90
5	A	2755	U	O4'-C1'-N1	9.91	116.13	108.20
5	A	626	G	N1-C6-O6	9.90	125.84	119.90
5	A	123	G	N1-C6-O6	9.89	125.83	119.90
5	A	217	G	N1-C6-O6	9.89	125.83	119.90
5	A	1785	G	N1-C6-O6	9.88	125.83	119.90
5	A	2009	G	C5-C6-O6	-9.88	122.67	128.60
5	A	209	U	O4'-C1'-N1	9.88	116.10	108.20
5	A	2399	G	N1-C6-O6	9.88	125.83	119.90
5	A	2706	G	N1-C6-O6	9.87	125.82	119.90
5	A	1860	G	N1-C6-O6	9.87	125.82	119.90
5	A	663	G	N1-C6-O6	9.86	125.82	119.90
5	A	2862	A	C5-C6-N6	-9.86	115.81	123.70
5	A	363	C	O4'-C1'-N1	9.86	116.09	108.20
5	A	1706	G	C5-C6-O6	-9.86	122.69	128.60
5	A	2029	G	N1-C6-O6	9.86	125.81	119.90
5	A	1232	G	N1-C6-O6	9.85	125.81	119.90
5	A	2671	G	N1-C6-O6	9.85	125.81	119.90
5	A	433	G	N1-C6-O6	9.85	125.81	119.90
5	A	1649	C	O4'-C1'-N1	9.84	116.07	108.20
5	A	1715	C	O4'-C1'-N1	9.84	116.07	108.20
5	A	768	G	N1-C6-O6	9.83	125.80	119.90
5	A	1974	G	N1-C6-O6	9.83	125.80	119.90
5	A	2571	A	N1-C6-N6	9.83	124.50	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	240	C	O4'-C1'-N1	9.82	116.06	108.20
5	A	2133	C	C2-N1-C1'	9.82	129.61	118.80
5	A	2077	G	C5-C6-O6	-9.81	122.71	128.60
5	A	1246	G	C5-C6-O6	-9.81	122.71	128.60
6	B	21	G	N1-C6-O6	9.81	125.79	119.90
5	A	1219	C	O4'-C1'-N1	9.81	116.05	108.20
5	A	694	G	N1-C6-O6	9.80	125.78	119.90
5	A	2411	G	C5-C6-O6	-9.80	122.72	128.60
5	A	1460	G	P-O3'-C3'	9.80	131.46	119.70
5	A	1546	G	N1-C6-O6	9.80	125.78	119.90
5	A	1978	G	N1-C6-O6	9.80	125.78	119.90
6	B	52	G	N1-C6-O6	9.79	125.78	119.90
5	A	748	G	N1-C6-O6	9.79	125.77	119.90
5	A	2359	G	N1-C6-O6	9.79	125.78	119.90
5	A	1289	U	O4'-C1'-N1	9.79	116.03	108.20
5	A	2655	C	O4'-C1'-N1	9.79	116.03	108.20
5	A	1944	U	O4'-C1'-N1	9.78	116.03	108.20
5	A	2068	G	N1-C6-O6	9.79	125.77	119.90
5	A	2154	G	O4'-C1'-N9	9.79	116.03	108.20
5	A	2766	G	N1-C6-O6	9.78	125.77	119.90
5	A	1057	G	C5-C6-O6	-9.78	122.73	128.60
5	A	309	U	O4'-C1'-N1	9.78	116.02	108.20
6	B	74	G	N1-C6-O6	9.78	125.77	119.90
5	A	764	C	O4'-C1'-N1	9.77	116.02	108.20
5	A	1943	C	O4'-C1'-N1	9.77	116.02	108.20
5	A	2565	G	N1-C6-O6	9.76	125.76	119.90
5	A	1558	G	N1-C6-O6	9.76	125.76	119.90
5	A	2839	C	O4'-C1'-N1	9.76	116.01	108.20
5	A	1023	G	N1-C6-O6	9.76	125.75	119.90
5	A	2412	G	N1-C6-O6	9.76	125.75	119.90
5	A	484	C	O4'-C1'-N1	9.75	116.00	108.20
5	A	1687	G	N1-C6-O6	9.75	125.75	119.90
5	A	1514	C	O4'-C1'-N1	9.75	116.00	108.20
5	A	1977	G	N1-C6-O6	9.75	125.75	119.90
6	B	73	G	C5-C6-O6	-9.75	122.75	128.60
6	B	91	C	O4'-C1'-N1	9.75	116.00	108.20
5	A	2106	A	N1-C6-N6	9.74	124.45	118.60
5	A	89	U	O4'-C1'-N1	9.74	115.99	108.20
5	A	2182	G	N1-C6-O6	9.74	125.75	119.90
5	A	2308	G	N1-C6-O6	9.74	125.75	119.90
5	A	2332	G	C5-C6-O6	-9.73	122.76	128.60
5	A	2729	C	O4'-C1'-N1	9.73	115.99	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	872	C	O4'-C1'-N1	9.73	115.98	108.20
5	A	2434	G	N1-C6-O6	9.73	125.74	119.90
5	A	2918	G	O4'-C1'-N9	9.73	115.98	108.20
5	A	920	G	N1-C6-O6	9.73	125.74	119.90
5	A	334	G	C5-C6-O6	-9.72	122.77	128.60
5	A	627	G	N1-C6-O6	9.72	125.73	119.90
5	A	940	G	N1-C6-O6	9.72	125.73	119.90
5	A	1543	U	O4'-C1'-N1	9.72	115.98	108.20
5	A	1874	G	C5-C6-O6	-9.72	122.77	128.60
5	A	2483	G	N1-C6-O6	9.72	125.73	119.90
5	A	213	C	O4'-C1'-N1	9.72	115.97	108.20
6	B	84	G	N1-C6-O6	9.72	125.73	119.90
5	A	1215	U	P-O3'-C3'	9.71	131.35	119.70
5	A	1777	G	N1-C6-O6	9.71	125.73	119.90
5	A	371	G	N1-C6-O6	9.71	125.72	119.90
5	A	2411	G	N1-C6-O6	9.71	125.72	119.90
5	A	1862	C	O4'-C1'-N1	9.70	115.96	108.20
5	A	2679	C	O4'-C1'-N1	9.70	115.96	108.20
5	A	2074	C	O4'-C1'-N1	9.70	115.96	108.20
5	A	2219	G	N1-C6-O6	9.70	125.72	119.90
5	A	346	G	C5-C6-O6	-9.70	122.78	128.60
5	A	1268	G	N1-C6-O6	9.69	125.72	119.90
5	A	1444	C	O4'-C1'-N1	9.69	115.95	108.20
5	A	671	G	N1-C6-O6	9.69	125.71	119.90
5	A	197	G	N1-C6-O6	9.69	125.71	119.90
5	A	1798	G	N1-C6-O6	9.69	125.71	119.90
5	A	780	G	N1-C6-O6	9.69	125.71	119.90
5	A	2133	C	C6-N1-C1'	-9.68	109.18	120.80
5	A	1629	C	P-O3'-C3'	9.68	131.31	119.70
5	A	367	G	N1-C6-O6	9.68	125.71	119.90
5	A	1531	G	N1-C6-O6	9.68	125.71	119.90
6	B	42	G	N1-C6-O6	9.67	125.70	119.90
5	A	1747	G	C5-C6-O6	-9.66	122.80	128.60
5	A	2705	C	O4'-C1'-N1	9.66	115.93	108.20
5	A	459	A	N1-C6-N6	9.66	124.39	118.60
5	A	1370	C	O4'-C1'-N1	9.66	115.92	108.20
6	B	82	G	N1-C6-O6	9.65	125.69	119.90
5	A	109	G	N1-C6-O6	9.65	125.69	119.90
5	A	986	G	N1-C6-O6	9.65	125.69	119.90
5	A	1993	G	N1-C6-O6	9.65	125.69	119.90
5	A	2798	C	O4'-C1'-N1	9.64	115.91	108.20
5	A	175	G	C5-C6-O6	-9.64	122.81	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	443	G	N1-C6-O6	9.64	125.68	119.90
5	A	939	G	C5-C6-O6	-9.64	122.82	128.60
5	A	1578	G	N1-C6-O6	9.64	125.69	119.90
5	A	1238	G	N1-C6-O6	9.64	125.68	119.90
5	A	1382	G	N1-C6-O6	9.64	125.68	119.90
5	A	599	G	N1-C6-O6	9.63	125.68	119.90
5	A	1669	G	C5-C6-O6	-9.63	122.82	128.60
5	A	2418	G	N1-C6-O6	9.63	125.68	119.90
5	A	2755	U	P-O3'-C3'	9.63	131.25	119.70
5	A	878	G	C5-C6-O6	-9.62	122.83	128.60
5	A	1841	G	N1-C6-O6	9.62	125.67	119.90
5	A	347	G	N1-C6-O6	9.62	125.67	119.90
5	A	759	G	P-O5'-C5'	9.62	136.29	120.90
5	A	1250	G	O4'-C1'-N9	9.62	115.89	108.20
5	A	1374	C	O4'-C1'-N1	9.62	115.89	108.20
5	A	2153	G	N1-C6-O6	9.62	125.67	119.90
5	A	143	G	N1-C6-O6	9.61	125.67	119.90
5	A	170	G	N1-C6-O6	9.61	125.67	119.90
5	A	370	G	N1-C6-O6	9.61	125.66	119.90
5	A	1632	G	N1-C6-O6	9.61	125.66	119.90
5	A	75	G	N1-C6-O6	9.60	125.66	119.90
5	A	566	G	N1-C6-O6	9.60	125.66	119.90
5	A	572	A	P-O3'-C3'	9.60	131.22	119.70
6	B	83	G	N1-C6-O6	9.60	125.66	119.90
5	A	2892	G	N1-C6-O6	9.60	125.66	119.90
5	A	427	G	N1-C6-O6	9.59	125.66	119.90
5	A	955	C	O4'-C1'-N1	9.59	115.87	108.20
5	A	2577	G	N1-C6-O6	9.59	125.65	119.90
5	A	2692	G	N1-C6-O6	9.59	125.65	119.90
5	A	71	A	N1-C6-N6	9.59	124.35	118.60
5	A	2149	G	N1-C6-O6	9.59	125.65	119.90
5	A	1339	A	O4'-C1'-N9	9.59	115.87	108.20
5	A	2263	G	N1-C6-O6	9.59	125.65	119.90
5	A	812	G	N1-C6-O6	9.58	125.65	119.90
5	A	1320	G	N1-C6-O6	9.58	125.65	119.90
5	A	2370	G	N1-C6-O6	9.58	125.65	119.90
5	A	1272	G	N1-C6-O6	9.58	125.65	119.90
5	A	1488	G	N1-C6-O6	9.58	125.65	119.90
5	A	43	G	N1-C6-O6	9.57	125.64	119.90
5	A	2764	G	N1-C6-O6	9.57	125.64	119.90
5	A	332	G	N1-C6-O6	9.57	125.64	119.90
5	A	1427	G	C5-C6-O6	-9.57	122.86	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	822	G	C5-C6-O6	-9.57	122.86	128.60
5	A	273	A	N1-C6-N6	9.57	124.34	118.60
5	A	1799	G	N1-C6-O6	9.57	125.64	119.90
5	A	76	C	O4'-C1'-N1	9.56	115.85	108.20
5	A	782	A	N1-C6-N6	9.56	124.34	118.60
5	A	899	C	O4'-C1'-N1	9.56	115.85	108.20
5	A	1668	G	N1-C6-O6	9.56	125.64	119.90
5	A	2318	G	N1-C6-O6	9.56	125.64	119.90
5	A	2677	G	C5-C6-O6	-9.56	122.86	128.60
5	A	953	G	N1-C6-O6	9.56	125.64	119.90
5	A	2515	G	N1-C6-O6	9.56	125.64	119.90
5	A	2635	C	O4'-C1'-N1	9.56	115.85	108.20
6	B	79	C	O4'-C1'-N1	9.56	115.85	108.20
5	A	832	G	N1-C6-O6	9.56	125.64	119.90
5	A	1719	G	N1-C6-O6	9.56	125.64	119.90
5	A	2309	G	N1-C6-O6	9.55	125.63	119.90
5	A	426	G	C5-C6-O6	-9.55	122.87	128.60
5	A	1012	G	C5-C6-O6	-9.55	122.87	128.60
5	A	719	C	O4'-C1'-N1	9.55	115.84	108.20
5	A	181	G	N1-C6-O6	9.54	125.63	119.90
5	A	476	A	P-O5'-C5'	9.54	136.16	120.90
5	A	489	G	N1-C6-O6	9.54	125.62	119.90
5	A	521	G	N1-C6-O6	9.54	125.62	119.90
5	A	1976	C	O4'-C1'-N1	9.54	115.83	108.20
5	A	2400	G	N1-C6-O6	9.54	125.62	119.90
5	A	631	G	P-O3'-C3'	9.54	131.14	119.70
5	A	879	G	N1-C6-O6	9.53	125.62	119.90
5	A	1529	G	N1-C6-O6	9.54	125.62	119.90
5	A	2620	C	O4'-C1'-N1	9.53	115.82	108.20
5	A	1367	G	N1-C6-O6	9.53	125.62	119.90
5	A	282	G	N1-C6-O6	9.53	125.61	119.90
5	A	1530	G	N1-C6-O6	9.53	125.61	119.90
5	A	2433	C	O4'-C1'-N1	9.53	115.82	108.20
5	A	169	G	N1-C6-O6	9.52	125.61	119.90
5	A	2746	G	N1-C6-O6	9.52	125.61	119.90
5	A	2747	G	N1-C6-O6	9.52	125.61	119.90
5	A	1300	G	N1-C6-O6	9.52	125.61	119.90
5	A	80	G	N1-C6-O6	9.51	125.61	119.90
5	A	667	A	O4'-C1'-N9	9.51	115.81	108.20
5	A	2275	G	C5-C6-O6	-9.51	122.90	128.60
6	B	48	G	C5-C6-O6	-9.51	122.90	128.60
5	A	2575	U	O4'-C1'-N1	9.50	115.80	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	532	C	O4'-C1'-N1	9.50	115.80	108.20
5	A	1412	A	N1-C6-N6	9.50	124.30	118.60
5	A	423	G	N1-C6-O6	9.50	125.60	119.90
5	A	536	G	N1-C6-O6	9.48	125.59	119.90
5	A	1220	G	O4'-C1'-N9	9.48	115.78	108.20
5	A	2288	G	N1-C6-O6	9.48	125.59	119.90
5	A	2694	A	O4'-C1'-N9	9.48	115.78	108.20
5	A	2554	G	N1-C6-O6	9.47	125.58	119.90
5	A	1446	C	O4'-C1'-N1	9.47	115.78	108.20
5	A	1578	G	O4'-C1'-N9	9.47	115.78	108.20
5	A	2623	C	O4'-C1'-N1	9.47	115.78	108.20
5	A	46	C	O4'-C1'-N1	9.47	115.78	108.20
5	A	1402	C	O4'-C1'-N1	9.47	115.78	108.20
5	A	1792	G	N1-C6-O6	9.47	125.58	119.90
5	A	1386	G	N1-C6-O6	9.47	125.58	119.90
5	A	447	G	N1-C6-O6	9.47	125.58	119.90
5	A	1195	U	O4'-C1'-N1	9.47	115.77	108.20
6	B	81	G	C5-C6-O6	-9.47	122.92	128.60
5	A	81	G	N1-C6-O6	9.46	125.58	119.90
5	A	1779	G	N1-C6-O6	9.46	125.58	119.90
5	A	726	C	O4'-C1'-N1	9.46	115.77	108.20
5	A	275	A	P-O5'-C5'	9.46	136.03	120.90
5	A	1642	G	C5-C6-O6	-9.46	122.93	128.60
5	A	1696	G	P-O3'-C3'	9.46	131.05	119.70
5	A	924	U	O4'-C1'-N1	9.45	115.76	108.20
5	A	1496	G	C5-C6-O6	-9.45	122.93	128.60
5	A	1869	G	N1-C6-O6	9.45	125.57	119.90
5	A	621	G	N1-C6-O6	9.45	125.57	119.90
5	A	817	G	N1-C6-O6	9.45	125.57	119.90
5	A	2450	G	N1-C6-O6	9.45	125.57	119.90
5	A	2651	C	O4'-C1'-N1	9.45	115.76	108.20
5	A	1172	A	N1-C6-N6	9.45	124.27	118.60
5	A	2523	G	N1-C6-O6	9.45	125.57	119.90
5	A	2699	G	N1-C6-O6	9.44	125.57	119.90
5	A	916	G	C5-C6-O6	-9.44	122.94	128.60
5	A	1853	G	N1-C6-O6	9.44	125.56	119.90
5	A	2832	G	N1-C6-O6	9.44	125.56	119.90
5	A	2257	G	C5-C6-O6	-9.43	122.94	128.60
5	A	297	G	N1-C6-O6	9.43	125.56	119.90
5	A	487	G	O4'-C1'-N9	9.43	115.75	108.20
5	A	1408	G	N1-C6-O6	9.43	125.56	119.90
5	A	1979	G	N1-C6-O6	9.43	125.56	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	42	G	N1-C6-O6	9.43	125.56	119.90
5	A	607	G	N1-C6-O6	9.43	125.56	119.90
5	A	1469	G	N1-C6-O6	9.43	125.56	119.90
5	A	2319	G	N1-C6-O6	9.42	125.55	119.90
5	A	471	G	N1-C6-O6	9.42	125.55	119.90
5	A	806	G	N1-C6-O6	9.42	125.55	119.90
5	A	1449	C	O4'-C1'-N1	9.42	115.73	108.20
5	A	1851	G	C5-C6-O6	-9.42	122.95	128.60
5	A	1953	C	P-O3'-C3'	9.42	131.00	119.70
5	A	247	A	N1-C6-N6	9.41	124.25	118.60
5	A	2244	G	N1-C6-O6	9.41	125.55	119.90
5	A	2385	C	O4'-C1'-N1	9.41	115.73	108.20
5	A	539	G	N1-C6-O6	9.41	125.55	119.90
5	A	1048	G	N1-C6-O6	9.41	125.55	119.90
5	A	788	G	N1-C6-O6	9.40	125.54	119.90
5	A	1245	G	N1-C6-O6	9.40	125.54	119.90
5	A	1007	G	P-O3'-C3'	9.40	130.98	119.70
5	A	1231	G	N1-C6-O6	9.39	125.54	119.90
5	A	2161	G	N1-C6-O6	9.39	125.54	119.90
5	A	2268	G	N1-C6-O6	9.39	125.53	119.90
5	A	1820	A	O4'-C1'-N9	9.39	115.71	108.20
5	A	642	G	C5-C6-O6	-9.38	122.97	128.60
5	A	1688	G	N1-C6-O6	9.39	125.53	119.90
5	A	1152	G	N1-C6-O6	9.38	125.53	119.90
5	A	1358	G	N1-C6-O6	9.38	125.53	119.90
5	A	1362	G	N1-C6-O6	9.38	125.53	119.90
5	A	1628	G	C5'-C4'-O4'	-9.38	97.84	109.10
5	A	631	G	N1-C6-O6	9.38	125.53	119.90
5	A	2457	G	N1-C6-O6	9.38	125.53	119.90
5	A	2596	G	N1-C6-O6	9.38	125.53	119.90
5	A	823	G	N1-C6-O6	9.37	125.52	119.90
5	A	654	G	N1-C6-O6	9.37	125.52	119.90
5	A	2564	A	C5-C6-N6	-9.37	116.20	123.70
5	A	1696	G	N1-C6-O6	9.37	125.52	119.90
5	A	519	A	O4'-C1'-N9	9.36	115.69	108.20
5	A	1331	C	O4'-C1'-N1	9.36	115.69	108.20
5	A	2081	G	N1-C6-O6	9.36	125.52	119.90
5	A	2099	G	N1-C6-O6	9.36	125.52	119.90
5	A	775	G	N1-C6-O6	9.36	125.52	119.90
5	A	62	C	P-O5'-C5'	9.35	135.87	120.90
5	A	579	G	N1-C6-O6	9.35	125.51	119.90
5	A	2067	G	N1-C6-O6	9.35	125.51	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1840	G	N1-C6-O6	9.35	125.51	119.90
5	A	1988	G	N1-C6-O6	9.35	125.51	119.90
5	A	1492	G	N1-C6-O6	9.34	125.51	119.90
5	A	1590	C	P-O3'-C3'	9.34	130.91	119.70
5	A	1015	G	N1-C6-O6	9.34	125.50	119.90
5	A	1846	G	N1-C6-O6	9.34	125.50	119.90
5	A	327	G	N1-C6-O6	9.34	125.50	119.90
5	A	791	C	O4'-C1'-N1	9.34	115.67	108.20
5	A	361	G	N1-C6-O6	9.33	125.50	119.90
5	A	2907	A	C5-C6-N6	-9.33	116.24	123.70
5	A	1452	C	O4'-C1'-N1	9.32	115.66	108.20
5	A	2168	G	C5-C6-O6	-9.32	123.01	128.60
5	A	457	G	O4'-C1'-N9	9.31	115.65	108.20
5	A	57	C	O4'-C1'-N1	9.31	115.65	108.20
5	A	861	C	O4'-C1'-N1	9.31	115.65	108.20
5	A	969	C	O4'-C1'-N1	9.31	115.64	108.20
5	A	1420	G	N1-C6-O6	9.30	125.48	119.90
5	A	1112	U	O4'-C1'-N1	9.30	115.64	108.20
5	A	1635	G	N1-C6-O6	9.30	125.48	119.90
5	A	2389	A	O4'-C1'-N9	9.30	115.64	108.20
5	A	2869	A	N1-C6-N6	9.30	124.18	118.60
5	A	1474	C	O4'-C1'-N1	9.29	115.63	108.20
5	A	1425	C	O4'-C1'-N1	9.28	115.63	108.20
5	A	921	G	C5-C6-O6	-9.28	123.03	128.60
5	A	1723	A	P-O3'-C3'	9.28	130.84	119.70
5	A	2720	C	O4'-C1'-N1	9.28	115.62	108.20
5	A	1693	C	O4'-C1'-N1	9.28	115.62	108.20
5	A	411	G	C5-C6-O6	-9.28	123.03	128.60
5	A	2707	C	O4'-C1'-N1	9.27	115.62	108.20
5	A	760	G	N1-C6-O6	9.27	125.46	119.90
5	A	2624	G	N1-C6-O6	9.27	125.46	119.90
5	A	294	G	N1-C6-O6	9.27	125.46	119.90
5	A	959	C	O4'-C1'-N1	9.26	115.61	108.20
5	A	1348	G	N1-C6-O6	9.26	125.46	119.90
5	A	2856	G	N1-C6-O6	9.26	125.46	119.90
5	A	382	G	C5-C6-O6	-9.26	123.05	128.60
5	A	1338	G	P-O3'-C3'	9.26	130.81	119.70
5	A	2696	C	O4'-C1'-N1	9.26	115.61	108.20
5	A	1083	G	N1-C6-O6	9.26	125.45	119.90
5	A	2654	G	C5-C6-O6	-9.25	123.05	128.60
5	A	2652	G	N1-C6-O6	9.25	125.45	119.90
5	A	1275	G	N1-C6-O6	9.25	125.45	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	245	G	N1-C6-O6	9.25	125.45	119.90
5	A	1167	C	O4'-C1'-N1	9.25	115.60	108.20
5	A	465	U	O4'-C1'-N1	9.24	115.60	108.20
5	A	1676	G	O4'-C1'-N9	9.24	115.59	108.20
6	B	77	G	N1-C6-O6	9.24	125.45	119.90
5	A	142	G	N1-C6-O6	9.24	125.44	119.90
5	A	1940	U	O4'-C1'-N1	9.24	115.59	108.20
5	A	926	G	C5-C6-O6	-9.23	123.06	128.60
5	A	1344	C	O4'-C1'-N1	9.23	115.59	108.20
6	B	110	G	N1-C6-O6	9.23	125.44	119.90
5	A	2524	G	N1-C6-O6	9.23	125.44	119.90
5	A	137	G	N1-C6-O6	9.23	125.44	119.90
5	A	2512	C	O4'-C1'-N1	9.23	115.58	108.20
5	A	1481	G	N1-C6-O6	9.22	125.44	119.90
5	A	733	U	O4'-C1'-N1	9.22	115.58	108.20
5	A	1354	C	O4'-C1'-N1	9.22	115.58	108.20
5	A	338	G	N1-C6-O6	9.21	125.43	119.90
5	A	424	G	N1-C6-O6	9.21	125.43	119.90
6	B	87	U	O4'-C1'-N1	9.21	115.57	108.20
5	A	7	G	N1-C6-O6	9.21	125.43	119.90
5	A	1363	G	N1-C6-O6	9.21	125.43	119.90
5	A	2188	G	N1-C6-O6	9.21	125.43	119.90
5	A	62	C	O4'-C1'-N1	9.21	115.57	108.20
5	A	1833	G	C5-C6-O6	-9.21	123.08	128.60
5	A	2914	C	O4'-C1'-N1	9.21	115.57	108.20
5	A	1039	G	N1-C6-O6	9.20	125.42	119.90
5	A	1338	G	N1-C6-O6	9.20	125.42	119.90
5	A	1573	C	O4'-C1'-N1	9.21	115.56	108.20
5	A	60	G	N1-C6-O6	9.20	125.42	119.90
5	A	1633	G	N1-C6-O6	9.20	125.42	119.90
5	A	2738	G	N1-C6-O6	9.20	125.42	119.90
5	A	1043	G	C5-C6-O6	-9.20	123.08	128.60
5	A	1562	A	P-O3'-C3'	9.20	130.74	119.70
5	A	1646	G	N1-C6-O6	9.20	125.42	119.90
5	A	1651	G	N1-C6-O6	9.20	125.42	119.90
5	A	1775	G	N1-C6-O6	9.20	125.42	119.90
5	A	1024	G	N1-C6-O6	9.19	125.42	119.90
5	A	2726	G	N1-C6-O6	9.19	125.41	119.90
5	A	1570	U	O4'-C1'-N1	9.19	115.55	108.20
5	A	926	G	N1-C6-O6	9.18	125.41	119.90
5	A	1080	G	N1-C6-O6	9.18	125.41	119.90
5	A	1418	U	O4'-C1'-N1	9.18	115.55	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2669	G	N1-C6-O6	9.18	125.41	119.90
5	A	27	G	P-O3'-C3'	9.18	130.72	119.70
5	A	1349	G	N1-C6-O6	9.18	125.41	119.90
5	A	11	G	N1-C6-O6	9.18	125.41	119.90
5	A	2427	U	O4'-C1'-N1	9.18	115.54	108.20
5	A	1047	A	N1-C6-N6	9.17	124.11	118.60
5	A	1683	C	O4'-C1'-N1	9.17	115.54	108.20
5	A	2090	G	N1-C6-O6	9.17	125.40	119.90
5	A	2494	C	O4'-C1'-N1	9.17	115.54	108.20
5	A	2541	C	O4'-C1'-N1	9.17	115.54	108.20
5	A	395	C	O4'-C1'-N1	9.17	115.54	108.20
5	A	2605	G	N1-C6-O6	9.17	125.40	119.90
5	A	2516	G	N1-C6-O6	9.17	125.40	119.90
5	A	349	C	P-O5'-C5'	9.16	135.56	120.90
5	A	2368	G	N1-C6-O6	9.16	125.40	119.90
5	A	1765	G	N1-C6-O6	9.16	125.40	119.90
5	A	211	C	O4'-C1'-N1	9.16	115.53	108.20
5	A	2230	C	O4'-C1'-N1	9.16	115.53	108.20
5	A	665	G	N1-C6-O6	9.16	125.39	119.90
5	A	2501	G	N1-C6-O6	9.16	125.39	119.90
5	A	214	G	N1-C6-O6	9.15	125.39	119.90
5	A	894	A	P-O3'-C3'	9.15	130.69	119.70
5	A	664	C	O4'-C1'-N1	9.15	115.52	108.20
5	A	362	C	O4'-C1'-N1	9.15	115.52	108.20
5	A	813	G	N1-C6-O6	9.15	125.39	119.90
5	A	2632	G	N1-C6-O6	9.15	125.39	119.90
5	A	2214	G	N1-C6-O6	9.14	125.39	119.90
5	A	1031	C	O4'-C1'-N1	9.14	115.51	108.20
5	A	1183	G	N1-C6-O6	9.14	125.38	119.90
5	A	263	G	N1-C6-O6	9.14	125.38	119.90
5	A	1028	C	P-O3'-C3'	9.14	130.67	119.70
5	A	1502	G	N1-C6-O6	9.14	125.38	119.90
5	A	848	G	N1-C6-O6	9.14	125.38	119.90
5	A	312	G	O4'-C1'-N9	9.13	115.51	108.20
6	B	108	C	O4'-C1'-N1	9.14	115.51	108.20
5	A	674	G	C5-C6-O6	-9.13	123.12	128.60
5	A	1182	G	N1-C6-O6	9.13	125.38	119.90
5	A	2075	G	N1-C6-O6	9.13	125.38	119.90
5	A	1223	C	O4'-C1'-N1	9.13	115.50	108.20
5	A	2758	G	C5-C6-O6	-9.13	123.12	128.60
5	A	154	A	C5-C6-N6	-9.13	116.40	123.70
5	A	455	G	N1-C6-O6	9.12	125.37	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2472	C	O4'-C1'-N1	9.12	115.50	108.20
5	A	2760	G	N1-C6-O6	9.12	125.38	119.90
5	A	457	G	N1-C6-O6	9.12	125.37	119.90
5	A	1722	A	O4'-C1'-N9	9.12	115.50	108.20
5	A	223	G	N1-C6-O6	9.12	125.37	119.90
5	A	2510	G	C5-C6-O6	-9.12	123.13	128.60
5	A	721	G	N1-C6-O6	9.12	125.37	119.90
5	A	1213	G	N1-C6-O6	9.12	125.37	119.90
5	A	1740	G	N1-C6-O6	9.12	125.37	119.90
5	A	2536	C	O4'-C1'-N1	9.12	115.50	108.20
5	A	2697	G	N1-C6-O6	9.12	125.37	119.90
5	A	585	G	N1-C6-O6	9.12	125.37	119.90
5	A	1088	G	N1-C6-O6	9.12	125.37	119.90
5	A	2043	A	O4'-C1'-N9	9.11	115.49	108.20
5	A	2773	G	N1-C6-O6	9.11	125.37	119.90
5	A	1007	G	N1-C6-O6	9.11	125.36	119.90
5	A	210	A	N1-C6-N6	9.10	124.06	118.60
5	A	2572	G	N1-C6-O6	9.10	125.36	119.90
5	A	826	U	O4'-C1'-N1	9.10	115.48	108.20
5	A	871	G	C5-C6-O6	-9.10	123.14	128.60
5	A	408	G	O4'-C1'-N9	9.10	115.48	108.20
5	A	2650	G	N1-C6-O6	9.10	125.36	119.90
5	A	2833	U	O4'-C1'-N1	9.10	115.48	108.20
5	A	625	C	O4'-C1'-N1	9.09	115.48	108.20
5	A	1168	G	C5-C6-O6	-9.09	123.14	128.60
5	A	262	G	N1-C6-O6	9.09	125.35	119.90
5	A	2843	G	N1-C6-O6	9.09	125.35	119.90
5	A	2918	G	N1-C6-O6	9.09	125.35	119.90
5	A	235	G	N1-C6-O6	9.09	125.35	119.90
5	A	1270	C	P-O3'-C3'	9.09	130.60	119.70
5	A	2038	G	N1-C6-O6	9.09	125.35	119.90
5	A	1350	U	O4'-C1'-N1	9.08	115.47	108.20
5	A	58	G	N1-C6-O6	9.08	125.35	119.90
5	A	2056	G	N1-C6-O6	9.08	125.35	119.90
5	A	1387	G	N1-C6-O6	9.07	125.34	119.90
5	A	1486	G	N1-C6-O6	9.07	125.34	119.90
5	A	540	G	N1-C6-O6	9.07	125.34	119.90
5	A	603	G	C5-C6-O6	-9.07	123.16	128.60
5	A	1153	G	N1-C6-O6	9.07	125.34	119.90
5	A	466	C	O4'-C1'-N1	9.07	115.45	108.20
5	A	2894	G	N1-C6-O6	9.06	125.34	119.90
5	A	2430	U	O4'-C1'-N1	9.06	115.45	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	63	G	P-O3'-C3'	9.06	130.57	119.70
5	A	83	G	N1-C6-O6	9.06	125.34	119.90
5	A	834	C	O4'-C1'-N1	9.06	115.45	108.20
5	A	1018	G	N1-C6-O6	9.06	125.33	119.90
5	A	1835	C	O4'-C1'-N1	9.06	115.45	108.20
5	A	2732	C	C6-N1-C2	-9.06	116.68	120.30
5	A	446	G	N1-C6-O6	9.05	125.33	119.90
5	A	802	G	N1-C6-O6	9.05	125.33	119.90
5	A	865	G	N1-C6-O6	9.05	125.33	119.90
5	A	927	G	N1-C6-O6	9.05	125.33	119.90
5	A	189	G	N1-C6-O6	9.05	125.33	119.90
5	A	1926	G	C5-C6-O6	-9.05	123.17	128.60
5	A	2126	G	N1-C6-O6	9.05	125.33	119.90
5	A	2926	C	O4'-C1'-N1	9.05	115.44	108.20
5	A	233	G	N1-C6-O6	9.05	125.33	119.90
5	A	386	U	O4'-C1'-N1	9.05	115.44	108.20
5	A	2598	G	N1-C6-O6	9.05	125.33	119.90
5	A	2723	G	N1-C6-O6	9.05	125.33	119.90
5	A	1134	A	O4'-C1'-N9	9.04	115.44	108.20
5	A	2058	G	N1-C6-O6	9.05	125.33	119.90
5	A	668	G	N1-C6-O6	9.04	125.33	119.90
5	A	2245	G	N1-C6-O6	9.04	125.33	119.90
5	A	2396	G	C5-C6-O6	-9.04	123.17	128.60
5	A	2855	G	N1-C6-O6	9.04	125.33	119.90
5	A	739	C	O4'-C1'-N1	9.04	115.43	108.20
5	A	2017	C	O4'-C1'-N1	9.04	115.43	108.20
5	A	976	U	O4'-C1'-N1	9.04	115.43	108.20
5	A	2586	G	N1-C6-O6	9.04	125.32	119.90
5	A	2780	G	P-O3'-C3'	9.04	130.54	119.70
5	A	684	G	N1-C6-O6	9.04	125.32	119.90
5	A	2079	C	O4'-C1'-N1	9.04	115.43	108.20
5	A	2574	G	C5-C6-O6	-9.03	123.18	128.60
5	A	1234	G	N1-C6-O6	9.03	125.32	119.90
5	A	507	A	N1-C6-N6	9.03	124.02	118.60
5	A	212	C	O4'-C1'-N1	9.03	115.42	108.20
5	A	1030	G	N1-C6-O6	9.03	125.31	119.90
5	A	1636	A	C5-C6-N6	-9.03	116.48	123.70
5	A	2895	C	O4'-C1'-N1	9.03	115.42	108.20
5	A	1019	A	N1-C6-N6	9.02	124.01	118.60
5	A	317	G	N1-C6-O6	9.02	125.31	119.90
5	A	377	G	N1-C6-O6	9.02	125.31	119.90
5	A	1151	U	O4'-C1'-N1	9.02	115.42	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	53	U	O4'-C1'-N1	9.02	115.42	108.20
5	A	190	G	N1-C6-O6	9.02	125.31	119.90
6	B	13	A	N1-C6-N6	9.02	124.01	118.60
5	A	546	G	N1-C6-O6	9.02	125.31	119.90
5	A	648	G	N1-C6-O6	9.02	125.31	119.90
5	A	1569	A	N1-C6-N6	9.02	124.01	118.60
5	A	2475	G	N1-C6-O6	9.02	125.31	119.90
5	A	2897	G	C5-C6-O6	-9.02	123.19	128.60
5	A	1196	C	O4'-C1'-N1	9.01	115.41	108.20
5	A	2043	A	N1-C6-N6	9.01	124.01	118.60
5	A	2756	G	N1-C6-O6	9.01	125.31	119.90
5	A	473	C	O4'-C1'-N1	9.01	115.41	108.20
5	A	595	G	N1-C6-O6	9.01	125.31	119.90
5	A	1139	G	N1-C6-O6	9.01	125.31	119.90
5	A	2391	G	N1-C6-O6	9.01	125.31	119.90
5	A	1497	G	N1-C6-O6	9.01	125.30	119.90
5	A	2645	C	O4'-C1'-N1	9.01	115.41	108.20
5	A	1757	G	N1-C6-O6	9.00	125.30	119.90
5	A	1114	G	O4'-C1'-N9	9.00	115.40	108.20
5	A	2736	G	N1-C6-O6	9.00	125.30	119.90
5	A	1304	G	P-O3'-C3'	9.00	130.50	119.70
5	A	2920	C	O4'-C1'-N1	9.00	115.40	108.20
6	B	40	C	O4'-C1'-N1	9.00	115.40	108.20
5	A	460	C	O4'-C1'-N1	8.99	115.40	108.20
5	A	1795	C	O4'-C1'-N1	8.99	115.40	108.20
5	A	2688	G	N1-C6-O6	8.99	125.30	119.90
5	A	1983	G	N1-C6-O6	8.99	125.30	119.90
5	A	810	G	N1-C6-O6	8.99	125.29	119.90
5	A	2328	G	N1-C6-O6	8.99	125.29	119.90
5	A	1413	G	N1-C6-O6	8.98	125.29	119.90
5	A	2682	U	O4'-C1'-N1	8.98	115.39	108.20
5	A	2114	C	O4'-C1'-N1	8.98	115.39	108.20
5	A	525	A	N1-C6-N6	8.98	123.99	118.60
5	A	551	A	N1-C6-N6	8.98	123.99	118.60
5	A	583	G	C5-C6-O6	-8.98	123.21	128.60
5	A	1759	U	O4'-C1'-N1	8.98	115.39	108.20
5	A	1077	G	N1-C6-O6	8.98	125.29	119.90
5	A	541	G	N1-C6-O6	8.98	125.29	119.90
5	A	731	G	N1-C6-O6	8.98	125.29	119.90
5	A	2672	G	N1-C6-O6	8.98	125.29	119.90
5	A	2703	G	N1-C6-O6	8.98	125.29	119.90
5	A	1470	G	N1-C6-O6	8.97	125.28	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2021	G	N1-C6-O6	8.97	125.28	119.90
5	A	385	G	C5-C6-O6	-8.97	123.22	128.60
5	A	967	G	N1-C6-O6	8.97	125.28	119.90
5	A	2265	U	O4'-C1'-N1	8.97	115.38	108.20
5	A	947	A	N1-C6-N6	8.97	123.98	118.60
5	A	2792	G	N1-C6-O6	8.97	125.28	119.90
5	A	1192	G	N1-C6-O6	8.97	125.28	119.90
5	A	2340	A	O4'-C1'-N9	8.97	115.38	108.20
5	A	417	G	P-O3'-C3'	8.97	130.46	119.70
5	A	581	C	O4'-C1'-N1	8.97	115.37	108.20
6	B	103	G	C5-C6-O6	-8.97	123.22	128.60
5	A	772	G	N1-C6-O6	8.96	125.28	119.90
5	A	1071	G	N1-C6-O6	8.97	125.28	119.90
5	A	2311	G	N1-C6-O6	8.97	125.28	119.90
5	A	1165	U	O4'-C1'-N1	8.96	115.37	108.20
5	A	414	C	O4'-C1'-N1	8.96	115.37	108.20
5	A	2064	G	N1-C6-O6	8.96	125.28	119.90
5	A	800	G	N1-C6-O6	8.96	125.28	119.90
5	A	1278	G	N1-C6-O6	8.96	125.28	119.90
5	A	992	G	N1-C6-O6	8.96	125.28	119.90
5	A	1741	G	N1-C6-O6	8.96	125.28	119.90
5	A	1839	A	N1-C6-N6	8.96	123.97	118.60
5	A	1137	G	N1-C6-O6	8.96	125.27	119.90
5	A	1616	G	N1-C6-O6	8.96	125.27	119.90
5	A	2388	C	O4'-C1'-N1	8.96	115.36	108.20
5	A	2519	G	N1-C6-O6	8.96	125.27	119.90
5	A	818	G	N1-C6-O6	8.95	125.27	119.90
5	A	27	G	N1-C6-O6	8.95	125.27	119.90
5	A	1440	G	N1-C6-O6	8.95	125.27	119.90
5	A	403	C	O4'-C1'-N1	8.95	115.36	108.20
5	A	1280	G	N1-C6-O6	8.95	125.27	119.90
5	A	118	A	N1-C6-N6	8.94	123.97	118.60
5	A	1324	G	N1-C6-O6	8.94	125.27	119.90
5	A	1478	G	N1-C6-O6	8.94	125.27	119.90
5	A	805	G	N1-C6-O6	8.94	125.27	119.90
5	A	2286	U	O4'-C1'-N1	8.94	115.35	108.20
5	A	2347	G	N1-C6-O6	8.94	125.27	119.90
5	A	83	G	O4'-C1'-N9	8.94	115.35	108.20
5	A	528	G	N1-C6-O6	8.94	125.26	119.90
5	A	839	G	N1-C6-O6	8.94	125.26	119.90
5	A	1022	G	N1-C6-O6	8.94	125.26	119.90
5	A	614	G	N1-C6-O6	8.94	125.26	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1629	C	O4'-C1'-N1	8.94	115.35	108.20
5	A	160	G	N1-C6-O6	8.93	125.26	119.90
5	A	1264	G	N1-C6-O6	8.93	125.26	119.90
5	A	1658	G	N1-C6-O6	8.93	125.26	119.90
5	A	1936	G	C5-C6-O6	-8.93	123.24	128.60
5	A	2190	C	O4'-C1'-N1	8.93	115.35	108.20
6	B	115	G	C5-C6-O6	-8.93	123.24	128.60
5	A	148	G	C5-C6-O6	-8.93	123.24	128.60
5	A	682	G	N1-C6-O6	8.93	125.26	119.90
5	A	1086	U	O4'-C1'-N1	8.93	115.34	108.20
5	A	2392	U	O4'-C1'-N1	8.93	115.34	108.20
5	A	1467	G	N1-C6-O6	8.93	125.26	119.90
5	A	644	G	N1-C6-O6	8.93	125.26	119.90
5	A	1572	G	N1-C6-O6	8.93	125.26	119.90
5	A	2513	G	C5-C6-O6	-8.93	123.24	128.60
5	A	617	G	N1-C6-O6	8.92	125.25	119.90
5	A	1	G	N1-C6-O6	8.92	125.25	119.90
5	A	2	G	N1-C6-O6	8.92	125.25	119.90
5	A	1939	G	N1-C6-O6	8.92	125.25	119.90
5	A	2233	C	O4'-C1'-N1	8.92	115.34	108.20
5	A	2352	G	N1-C6-O6	8.92	125.25	119.90
5	A	2873	G	N1-C6-O6	8.92	125.25	119.90
5	A	1311	G	C5-C6-O6	-8.92	123.25	128.60
5	A	2076	C	O4'-C1'-N1	8.92	115.34	108.20
5	A	1674	G	N1-C6-O6	8.92	125.25	119.90
5	A	2443	G	N1-C6-O6	8.92	125.25	119.90
6	B	118	A	O4'-C1'-N9	8.92	115.34	108.20
5	A	807	G	N1-C6-O6	8.92	125.25	119.90
5	A	933	C	P-O3'-C3'	8.92	130.40	119.70
5	A	1859	C	O4'-C1'-N1	8.92	115.33	108.20
5	A	99	U	P-O3'-C3'	8.91	130.40	119.70
5	A	501	A	N1-C6-N6	8.91	123.95	118.60
5	A	1571	G	N1-C6-O6	8.91	125.25	119.90
5	A	2144	G	N1-C6-O6	8.91	125.25	119.90
5	A	243	G	N1-C6-O6	8.91	125.25	119.90
5	A	2653	G	N1-C6-O6	8.91	125.25	119.90
6	B	43	A	N1-C6-N6	8.91	123.94	118.60
5	A	464	C	O4'-C1'-N1	8.91	115.33	108.20
5	A	1342	G	N1-C6-O6	8.91	125.24	119.90
5	A	2660	G	N1-C6-O6	8.91	125.24	119.90
5	A	1376	G	N1-C6-O6	8.90	125.24	119.90
5	A	85	G	N1-C6-O6	8.90	125.24	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	629	G	N1-C6-O6	8.90	125.24	119.90
5	A	45	G	N1-C6-O6	8.90	125.24	119.90
5	A	215	G	N1-C6-O6	8.90	125.24	119.90
5	A	335	G	N1-C6-O6	8.90	125.24	119.90
5	A	239	C	O4'-C1'-N1	8.90	115.32	108.20
5	A	445	C	O4'-C1'-N1	8.90	115.32	108.20
5	A	728	G	N1-C6-O6	8.90	125.24	119.90
5	A	1294	A	O4'-C1'-N9	8.90	115.32	108.20
5	A	2404	G	N1-C6-O6	8.90	125.24	119.90
5	A	2426	G	N1-C6-O6	8.90	125.24	119.90
5	A	2780	G	N1-C6-O6	8.90	125.24	119.90
5	A	48	G	N1-C6-O6	8.89	125.24	119.90
5	A	824	G	C5-C6-O6	-8.89	123.26	128.60
5	A	2306	G	N1-C6-O6	8.89	125.24	119.90
5	A	1761	G	N1-C6-O6	8.89	125.24	119.90
5	A	257	G	N1-C6-O6	8.89	125.23	119.90
5	A	1589	G	N1-C6-O6	8.89	125.23	119.90
5	A	1732	G	N1-C6-O6	8.89	125.23	119.90
5	A	1962	G	N1-C6-O6	8.89	125.23	119.90
5	A	2062	A	N1-C6-N6	8.89	123.93	118.60
5	A	2611	G	N1-C6-O6	8.89	125.23	119.90
5	A	2272	U	O4'-C1'-N1	8.89	115.31	108.20
5	A	2342	C	O4'-C1'-N1	8.89	115.31	108.20
5	A	2870	G	N1-C6-O6	8.89	125.23	119.90
6	B	4	G	N1-C6-O6	8.88	125.23	119.90
5	A	837	U	P-O3'-C3'	8.88	130.36	119.70
5	A	1854	G	N1-C6-O6	8.88	125.23	119.90
5	A	1219	C	C2-N1-C1'	8.88	128.57	118.80
5	A	1875	G	N1-C6-O6	8.88	125.23	119.90
5	A	96	G	N1-C6-O6	8.88	125.23	119.90
5	A	261	C	O4'-C1'-N1	8.88	115.30	108.20
5	A	269	G	N1-C6-O6	8.88	125.23	119.90
5	A	1011	C	O4'-C1'-N1	8.88	115.30	108.20
5	A	1160	G	C5-C6-O6	-8.88	123.27	128.60
6	B	104	G	N1-C6-O6	8.88	125.23	119.90
5	A	498	U	O4'-C1'-N1	8.88	115.30	108.20
6	B	63	C	O4'-C1'-N1	8.88	115.30	108.20
5	A	359	C	O4'-C1'-N1	8.87	115.30	108.20
5	A	2603	G	N1-C6-O6	8.87	125.22	119.90
6	B	8	G	N1-C6-O6	8.87	125.22	119.90
5	A	2213	U	O4'-C1'-N1	8.87	115.29	108.20
5	A	1773	G	N1-C6-O6	8.86	125.22	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1494	G	N1-C6-O6	8.86	125.22	119.90
5	A	241	C	O4'-C1'-N1	8.86	115.29	108.20
5	A	576	G	N1-C6-O6	8.86	125.21	119.90
5	A	713	G	N1-C6-O6	8.86	125.21	119.90
5	A	2135	G	N1-C6-O6	8.86	125.21	119.90
5	A	2253	G	N1-C6-O6	8.86	125.21	119.90
5	A	1463	C	O4'-C1'-N1	8.85	115.28	108.20
5	A	2130	G	N1-C6-O6	8.85	125.21	119.90
5	A	2698	G	C5-C6-O6	-8.85	123.29	128.60
6	B	80	G	C5-C6-O6	-8.85	123.29	128.60
5	A	264	G	N1-C6-O6	8.85	125.21	119.90
5	A	2129	G	N1-C6-O6	8.85	125.21	119.90
6	B	10	G	N1-C6-O6	8.85	125.21	119.90
5	A	115	C	O4'-C1'-N1	8.85	115.28	108.20
5	A	1309	G	N1-C6-O6	8.85	125.21	119.90
5	A	1782	G	N1-C6-O6	8.85	125.21	119.90
5	A	1403	G	N1-C6-O6	8.85	125.21	119.90
5	A	1563	G	N1-C6-O6	8.85	125.21	119.90
5	A	59	G	N1-C6-O6	8.84	125.20	119.90
5	A	2264	G	N1-C6-O6	8.84	125.20	119.90
5	A	2510	G	O4'-C1'-N9	8.84	115.27	108.20
5	A	174	U	O4'-C1'-N1	8.84	115.27	108.20
5	A	313	U	O4'-C1'-N1	8.84	115.27	108.20
5	A	514	G	N1-C6-O6	8.84	125.20	119.90
5	A	1389	C	O4'-C1'-N1	8.84	115.27	108.20
6	B	78	U	O4'-C1'-N1	8.84	115.27	108.20
5	A	55	G	N1-C6-O6	8.83	125.20	119.90
5	A	1396	C	O4'-C1'-N1	8.83	115.27	108.20
5	A	1117	G	N1-C6-O6	8.83	125.20	119.90
5	A	1361	A	O4'-C1'-N9	8.83	115.27	108.20
5	A	1742	G	N1-C6-O6	8.83	125.20	119.90
5	A	1784	A	P-O5'-C5'	8.83	135.03	120.90
5	A	30	G	C5-C6-O6	-8.82	123.31	128.60
5	A	1304	G	N1-C6-O6	8.82	125.19	119.90
5	A	1665	G	N1-C6-O6	8.82	125.19	119.90
5	A	2145	G	N1-C6-O6	8.82	125.19	119.90
5	A	2199	G	N1-C6-O6	8.82	125.19	119.90
6	B	29	C	O4'-C1'-N1	8.82	115.26	108.20
5	A	905	G	N1-C6-O6	8.82	125.19	119.90
5	A	1158	G	N1-C6-O6	8.82	125.19	119.90
5	A	1539	C	O4'-C1'-N1	8.82	115.26	108.20
5	A	2109	G	N1-C6-O6	8.82	125.19	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2139	G	N1-C6-O6	8.82	125.19	119.90
5	A	773	G	N1-C6-O6	8.82	125.19	119.90
5	A	116	G	N1-C6-O6	8.82	125.19	119.90
5	A	2693	G	N1-C6-O6	8.82	125.19	119.90
5	A	1093	G	N1-C6-O6	8.82	125.19	119.90
5	A	2039	G	N1-C6-O6	8.82	125.19	119.90
5	A	640	C	O4'-C1'-N1	8.81	115.25	108.20
5	A	2778	A	N1-C6-N6	8.81	123.89	118.60
6	B	119	G	N1-C6-O6	8.81	125.19	119.90
5	A	2183	G	N1-C6-O6	8.81	125.19	119.90
5	A	2467	U	P-O3'-C3'	8.81	130.28	119.70
5	A	2836	G	N1-C6-O6	8.81	125.19	119.90
5	A	2607	G	N1-C6-O6	8.81	125.18	119.90
5	A	2863	G	N1-C6-O6	8.81	125.18	119.90
5	A	917	A	P-O5'-C5'	8.81	134.99	120.90
5	A	341	G	N1-C6-O6	8.80	125.18	119.90
5	A	1177	G	N1-C6-O6	8.80	125.18	119.90
5	A	2448	U	O4'-C1'-N1	8.80	115.24	108.20
5	A	1250	G	N1-C6-O6	8.80	125.18	119.90
5	A	1613	C	O4'-C1'-N1	8.80	115.24	108.20
5	A	1255	G	N1-C6-O6	8.80	125.18	119.90
5	A	2382	G	N1-C6-O6	8.80	125.18	119.90
5	A	1673	G	N1-C6-O6	8.79	125.18	119.90
5	A	2765	G	C5-C6-O6	-8.79	123.32	128.60
5	A	23	G	N1-C6-O6	8.79	125.17	119.90
5	A	1298	C	O4'-C1'-N1	8.79	115.23	108.20
5	A	1399	G	N1-C6-O6	8.79	125.18	119.90
5	A	1454	C	O4'-C1'-N1	8.79	115.23	108.20
6	B	107	G	N1-C6-O6	8.79	125.18	119.90
5	A	2847	G	O4'-C1'-N9	8.79	115.23	108.20
5	A	357	G	C5-C6-O6	-8.79	123.33	128.60
5	A	3	U	O4'-C1'-N1	8.79	115.23	108.20
5	A	1236	G	N1-C6-O6	8.79	125.17	119.90
5	A	589	G	N1-C6-O6	8.79	125.17	119.90
5	A	1718	G	N1-C6-O6	8.79	125.17	119.90
5	A	2413	G	C5-C6-O6	-8.79	123.33	128.60
5	A	2112	G	N1-C6-O6	8.78	125.17	119.90
5	A	2266	G	N1-C6-O6	8.78	125.17	119.90
6	B	15	C	O4'-C1'-N1	8.78	115.23	108.20
5	A	2377	U	O4'-C1'-N1	8.78	115.22	108.20
5	A	1288	G	N1-C6-O6	8.78	125.17	119.90
5	A	1690	G	N1-C6-O6	8.78	125.17	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2702	G	C5-C6-O6	-8.78	123.33	128.60
5	A	508	C	O4'-C1'-N1	8.78	115.22	108.20
5	A	2829	G	N1-C6-O6	8.78	125.17	119.90
5	A	1334	C	O4'-C1'-N1	8.77	115.22	108.20
5	A	1967	A	P-O3'-C3'	8.77	130.23	119.70
5	A	2608	C	O4'-C1'-N1	8.77	115.22	108.20
5	A	134	C	O4'-C1'-N1	8.77	115.22	108.20
5	A	287	G	N1-C6-O6	8.77	125.16	119.90
5	A	845	G	N1-C6-O6	8.77	125.16	119.90
5	A	2099	G	O4'-C1'-N9	8.77	115.22	108.20
5	A	2610	G	N1-C6-O6	8.77	125.16	119.90
5	A	2803	C	O4'-C1'-N1	8.77	115.22	108.20
5	A	458	G	N1-C6-O6	8.77	125.16	119.90
5	A	1171	G	N1-C6-O6	8.77	125.16	119.90
5	A	1712	G	N1-C6-O6	8.77	125.16	119.90
5	A	328	G	N1-C6-O6	8.76	125.16	119.90
6	B	19	G	N1-C6-O6	8.76	125.16	119.90
5	A	24	G	C5-C6-O6	-8.76	123.34	128.60
5	A	26	G	N1-C6-O6	8.76	125.16	119.90
5	A	497	G	N1-C6-O6	8.76	125.16	119.90
5	A	2041	G	N1-C6-O6	8.76	125.16	119.90
5	A	825	G	N1-C6-O6	8.76	125.16	119.90
5	A	1822	G	N1-C6-O6	8.76	125.16	119.90
5	A	1407	G	N1-C6-O6	8.76	125.15	119.90
5	A	963	G	N1-C6-O6	8.75	125.15	119.90
5	A	1566	G	N1-C6-O6	8.75	125.15	119.90
5	A	2197	G	N1-C6-O6	8.75	125.15	119.90
5	A	1185	G	N1-C6-O6	8.75	125.15	119.90
5	A	2439	G	N1-C6-O6	8.75	125.15	119.90
5	A	2444	G	C5-C6-O6	-8.75	123.35	128.60
5	A	2667	G	N1-C6-O6	8.75	125.15	119.90
6	B	70	G	N1-C6-O6	8.75	125.15	119.90
5	A	1000	G	N1-C6-O6	8.75	125.15	119.90
5	A	1076	G	C5-C6-O6	-8.75	123.35	128.60
5	A	1267	G	N1-C6-O6	8.75	125.15	119.90
5	A	2917	G	N1-C6-O6	8.75	125.15	119.90
5	A	190	G	O4'-C1'-N9	8.75	115.20	108.20
5	A	2031	G	N1-C6-O6	8.75	125.15	119.90
5	A	1416	G	N1-C6-O6	8.75	125.15	119.90
5	A	2313	C	O4'-C1'-N1	8.75	115.20	108.20
5	A	218	G	N1-C6-O6	8.74	125.15	119.90
5	A	2558	G	N1-C6-O6	8.74	125.15	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2284	G	N1-C6-O6	8.74	125.14	119.90
5	A	2730	U	O4'-C1'-N1	8.74	115.19	108.20
5	A	192	G	N1-C6-O6	8.74	125.14	119.90
5	A	2305	G	N1-C6-O6	8.74	125.14	119.90
5	A	2901	G	N1-C6-O6	8.74	125.14	119.90
5	A	2337	G	N1-C6-O6	8.73	125.14	119.90
5	A	180	G	C5-C6-O6	-8.73	123.36	128.60
5	A	979	U	O4'-C1'-N1	8.73	115.19	108.20
5	A	751	G	N1-C6-O6	8.73	125.14	119.90
5	A	1621	G	N1-C6-O6	8.73	125.14	119.90
5	A	1678	G	N1-C6-O6	8.73	125.14	119.90
5	A	1964	G	N1-C6-O6	8.73	125.14	119.90
5	A	2194	G	N1-C6-O6	8.73	125.14	119.90
5	A	396	G	N1-C6-O6	8.73	125.14	119.90
5	A	413	U	O4'-C1'-N1	8.73	115.18	108.20
5	A	523	G	N1-C6-O6	8.73	125.14	119.90
5	A	1101	G	N1-C6-O6	8.73	125.14	119.90
5	A	776	G	N1-C6-O6	8.72	125.13	119.90
5	A	998	G	C5-C6-O6	-8.72	123.37	128.60
5	A	1487	G	C5-C6-O6	-8.72	123.36	128.60
5	A	2674	G	N1-C6-O6	8.72	125.14	119.90
5	A	1763	G	N1-C6-O6	8.72	125.13	119.90
5	A	2394	G	N1-C6-O6	8.72	125.13	119.90
6	B	68	C	O4'-C1'-N1	8.72	115.18	108.20
5	A	1518	G	C5-C6-O6	-8.72	123.37	128.60
5	A	2614	U	O4'-C1'-N1	8.72	115.18	108.20
5	A	2659	G	N1-C6-O6	8.72	125.13	119.90
5	A	1522	U	C2-N1-C1'	8.72	128.16	117.70
5	A	1769	G	N1-C6-O6	8.72	125.13	119.90
5	A	1836	G	N1-C6-O6	8.71	125.13	119.90
5	A	2001	G	N1-C6-O6	8.71	125.13	119.90
5	A	1002	G	N1-C6-O6	8.71	125.13	119.90
5	A	1133	G	N1-C6-O6	8.71	125.13	119.90
5	A	1356	G	N1-C6-O6	8.71	125.13	119.90
5	A	1410	G	N1-C6-O6	8.71	125.13	119.90
5	A	1611	G	N1-C6-O6	8.71	125.13	119.90
6	B	98	G	N1-C6-O6	8.71	125.13	119.90
5	A	890	G	N1-C6-O6	8.71	125.12	119.90
5	A	2251	G	N1-C6-O6	8.71	125.12	119.90
5	A	1265	A	O4'-C1'-N9	8.70	115.16	108.20
5	A	2877	G	C5-C6-O6	-8.71	123.38	128.60
5	A	404	C	O4'-C1'-N1	8.70	115.16	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1359	G	N1-C6-O6	8.70	125.12	119.90
5	A	1843	G	N1-C6-O6	8.70	125.12	119.90
5	A	749	G	N1-C6-O6	8.70	125.12	119.90
5	A	2617	G	C5-C6-O6	-8.70	123.38	128.60
6	B	65	G	N1-C6-O6	8.70	125.12	119.90
5	A	51	G	N1-C6-O6	8.70	125.12	119.90
5	A	1475	G	N1-C6-O6	8.70	125.12	119.90
5	A	1493	C	P-O3'-C3'	8.70	130.14	119.70
5	A	2189	G	N1-C6-O6	8.70	125.12	119.90
5	A	2419	U	O4'-C1'-N1	8.70	115.16	108.20
6	B	92	C	O4'-C1'-N1	8.70	115.16	108.20
5	A	1276	G	N1-C6-O6	8.70	125.12	119.90
5	A	1766	C	O4'-C1'-N1	8.70	115.16	108.20
5	A	2012	C	O4'-C1'-N1	8.70	115.16	108.20
5	A	2185	G	N1-C6-O6	8.69	125.12	119.90
5	A	122	G	N1-C6-O6	8.69	125.11	119.90
5	A	312	G	N1-C6-O6	8.69	125.11	119.90
5	A	1450	C	O4'-C1'-N1	8.69	115.15	108.20
5	A	2744	C	O4'-C1'-N1	8.69	115.15	108.20
5	A	256	C	P-O5'-C5'	8.69	134.80	120.90
5	A	2366	G	C5-C6-O6	-8.69	123.39	128.60
5	A	2871	G	N1-C6-O6	8.69	125.11	119.90
6	B	57	G	N1-C6-O6	8.69	125.11	119.90
5	A	408	G	C5-C6-O6	-8.69	123.39	128.60
5	A	2065	C	O4'-C1'-N1	8.69	115.15	108.20
5	A	2015	G	N1-C6-O6	8.68	125.11	119.90
5	A	2350	G	N1-C6-O6	8.68	125.11	119.90
6	B	30	C	O4'-C1'-N1	8.68	115.15	108.20
5	A	208	G	N1-C6-O6	8.68	125.11	119.90
5	A	411	G	O4'-C1'-N9	8.68	115.14	108.20
5	A	1209	G	N1-C6-O6	8.68	125.11	119.90
5	A	1322	G	N1-C6-O6	8.68	125.11	119.90
5	A	905	G	O4'-C1'-N9	8.68	115.14	108.20
5	A	1997	G	N1-C6-O6	8.68	125.11	119.90
5	A	2561	G	N1-C6-O6	8.68	125.11	119.90
5	A	2122	G	N1-C6-O6	8.68	125.11	119.90
5	A	550	G	N1-C6-O6	8.68	125.11	119.90
5	A	587	C	O4'-C1'-N1	8.68	115.14	108.20
5	A	1371	G	N1-C6-O6	8.68	125.11	119.90
5	A	2554	G	O4'-C1'-N9	8.68	115.14	108.20
5	A	319	G	N1-C6-O6	8.67	125.10	119.90
5	A	1145	G	N1-C6-O6	8.67	125.10	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2543	U	O4'-C1'-N1	8.67	115.14	108.20
5	A	250	G	N1-C6-O6	8.67	125.10	119.90
5	A	792	G	N1-C6-O6	8.67	125.10	119.90
5	A	2193	C	O4'-C1'-N1	8.67	115.14	108.20
5	A	2636	G	N1-C6-O6	8.67	125.10	119.90
5	A	1526	G	N1-C6-O6	8.67	125.10	119.90
5	A	2323	C	O4'-C1'-N1	8.67	115.13	108.20
5	A	2656	G	N1-C6-O6	8.67	125.10	119.90
6	B	49	G	N1-C6-O6	8.67	125.10	119.90
5	A	1520	A	C5-C6-N6	-8.66	116.77	123.70
5	A	2282	G	N1-C6-O6	8.66	125.10	119.90
5	A	2684	G	N1-C6-O6	8.66	125.10	119.90
5	A	221	G	N1-C6-O6	8.66	125.10	119.90
5	A	676	G	N1-C6-O6	8.66	125.10	119.90
5	A	1657	C	O4'-C1'-N1	8.66	115.13	108.20
5	A	2380	G	N1-C6-O6	8.66	125.10	119.90
5	A	773	G	O4'-C1'-N9	8.66	115.13	108.20
5	A	1044	C	O4'-C1'-N1	8.66	115.13	108.20
5	A	1752	G	C5-C6-O6	-8.66	123.40	128.60
5	A	1801	G	N1-C6-O6	8.66	125.10	119.90
5	A	2149	G	P-O5'-C5'	8.66	134.76	120.90
5	A	61	A	O4'-C1'-N9	8.66	115.13	108.20
5	A	1933	G	N1-C6-O6	8.66	125.10	119.90
5	A	2850	G	N1-C6-O6	8.66	125.09	119.90
5	A	184	G	N1-C6-O6	8.66	125.09	119.90
5	A	2072	C	O4'-C1'-N1	8.66	115.13	108.20
5	A	1105	G	C5-C6-O6	-8.66	123.41	128.60
5	A	2299	G	N1-C6-O6	8.66	125.09	119.90
5	A	380	C	O4'-C1'-N1	8.65	115.12	108.20
5	A	761	U	O4'-C1'-N1	8.65	115.12	108.20
5	A	1568	G	N1-C6-O6	8.65	125.09	119.90
5	A	2531	G	N1-C6-O6	8.65	125.09	119.90
5	A	248	G	C5-C6-O6	-8.65	123.41	128.60
5	A	1259	G	N1-C6-O6	8.65	125.09	119.90
5	A	1340	A	O4'-C1'-N9	8.65	115.12	108.20
5	A	1726	G	N1-C6-O6	8.65	125.09	119.90
5	A	1781	C	O4'-C1'-N1	8.65	115.12	108.20
5	A	487	G	N1-C6-O6	8.65	125.09	119.90
5	A	1750	G	N1-C6-O6	8.65	125.09	119.90
5	A	1787	G	N1-C6-O6	8.65	125.09	119.90
5	A	1228	G	N1-C6-O6	8.65	125.09	119.90
5	A	1949	C	O4'-C1'-N1	8.64	115.12	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	68	C	O4'-C1'-N1	8.64	115.11	108.20
5	A	697	G	N1-C6-O6	8.64	125.09	119.90
5	A	2281	G	N1-C6-O6	8.64	125.08	119.90
5	A	419	G	N1-C6-O6	8.64	125.08	119.90
5	A	1604	C	O4'-C1'-N1	8.64	115.11	108.20
5	A	2037	C	O4'-C1'-N1	8.64	115.11	108.20
5	A	2801	C	O4'-C1'-N1	8.64	115.11	108.20
5	A	1193	U	O4'-C1'-N1	8.64	115.11	108.20
5	A	1521	G	N1-C6-O6	8.63	125.08	119.90
5	A	2634	U	O4'-C1'-N1	8.63	115.11	108.20
5	A	1762	G	N1-C6-O6	8.63	125.08	119.90
5	A	145	G	N1-C6-O6	8.63	125.08	119.90
5	A	1240	U	O4'-C1'-N1	8.63	115.11	108.20
5	A	2637	G	N1-C6-O6	8.63	125.08	119.90
5	A	1671	G	N1-C6-O6	8.63	125.08	119.90
5	A	1865	C	O4'-C1'-N1	8.63	115.10	108.20
5	A	2336	G	N1-C6-O6	8.63	125.08	119.90
5	A	2518	G	C5-C6-O6	-8.63	123.42	128.60
5	A	544	G	N1-C6-O6	8.62	125.08	119.90
5	A	1471	G	N1-C6-O6	8.63	125.08	119.90
5	A	1263	G	C5-C6-O6	-8.62	123.42	128.60
5	A	1537	G	C5-C6-O6	-8.62	123.43	128.60
5	A	2694	A	P-O3'-C3'	-8.62	109.35	119.70
5	A	729	G	C5-C6-O6	-8.62	123.43	128.60
5	A	1441	U	O4'-C1'-N1	8.62	115.10	108.20
5	A	2014	G	C5-C6-O6	-8.62	123.43	128.60
5	A	2530	C	O4'-C1'-N1	8.62	115.10	108.20
5	A	703	G	N1-C6-O6	8.62	125.07	119.90
5	A	2743	G	N1-C6-O6	8.62	125.07	119.90
5	A	1377	G	N1-C6-O6	8.62	125.07	119.90
5	A	510	G	N1-C6-O6	8.61	125.07	119.90
5	A	1336	C	O4'-C1'-N1	8.62	115.09	108.20
5	A	688	G	N1-C6-O6	8.61	125.07	119.90
5	A	842	C	O4'-C1'-N1	8.61	115.09	108.20
5	A	1290	G	N1-C6-O6	8.61	125.07	119.90
5	A	1306	G	N1-C6-O6	8.61	125.07	119.90
5	A	2695	C	O4'-C1'-N1	8.61	115.09	108.20
5	A	535	G	N1-C6-O6	8.61	125.07	119.90
5	A	902	G	N1-C6-O6	8.61	125.07	119.90
5	A	1600	G	N1-C6-O6	8.61	125.07	119.90
5	A	2538	G	C5-C6-O6	-8.61	123.44	128.60
5	A	304	G	N1-C6-O6	8.61	125.06	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	94	G	N1-C6-O6	8.61	125.06	119.90
5	A	559	A	O4'-C1'-N9	8.60	115.08	108.20
5	A	1589	G	O4'-C1'-N9	8.60	115.08	108.20
5	A	1711	G	N1-C6-O6	8.60	125.06	119.90
5	A	609	C	O4'-C1'-N1	8.60	115.08	108.20
5	A	784	C	O4'-C1'-N1	8.60	115.08	108.20
5	A	2061	G	O4'-C1'-N9	8.60	115.08	108.20
6	B	96	G	N1-C6-O6	8.60	125.06	119.90
5	A	1959	G	N1-C6-O6	8.60	125.06	119.90
5	A	2582	G	N1-C6-O6	8.60	125.06	119.90
5	A	1694	G	C5-C6-O6	-8.60	123.44	128.60
5	A	2019	C	O4'-C1'-N1	8.59	115.08	108.20
5	A	2384	C	O4'-C1'-N1	8.59	115.07	108.20
5	A	2626	G	N1-C6-O6	8.59	125.06	119.90
5	A	1561	G	N1-C6-O6	8.59	125.05	119.90
5	A	1810	G	N1-C6-O6	8.59	125.05	119.90
5	A	1828	G	N1-C6-O6	8.59	125.05	119.90
6	B	7	G	N1-C6-O6	8.59	125.05	119.90
5	A	1227	G	N1-C6-O6	8.59	125.05	119.90
5	A	1156	G	N1-C6-O6	8.59	125.05	119.90
5	A	344	G	C5-C6-O6	-8.58	123.45	128.60
5	A	1225	G	N1-C6-O6	8.58	125.05	119.90
5	A	886	U	O4'-C1'-N1	8.58	115.07	108.20
5	A	1861	C	O4'-C1'-N1	8.58	115.07	108.20
5	A	228	C	O4'-C1'-N1	8.58	115.06	108.20
5	A	131	C	O4'-C1'-N1	8.58	115.06	108.20
5	A	906	G	N1-C6-O6	8.57	125.05	119.90
5	A	2154	G	N1-C6-O6	8.57	125.05	119.90
5	A	564	G	C5-C6-O6	-8.57	123.46	128.60
5	A	1247	G	N1-C6-O6	8.57	125.04	119.90
5	A	2195	G	O4'-C1'-N9	8.57	115.06	108.20
5	A	1397	G	N1-C6-O6	8.57	125.04	119.90
5	A	1793	G	C5-C6-O6	-8.57	123.46	128.60
5	A	454	G	N1-C6-O6	8.57	125.04	119.90
5	A	1285	G	N1-C6-O6	8.57	125.04	119.90
6	B	5	G	N1-C6-O6	8.57	125.04	119.90
5	A	677	A	O4'-C1'-N9	8.56	115.05	108.20
5	A	712	C	O4'-C1'-N1	8.56	115.05	108.20
5	A	2847	G	N1-C6-O6	8.56	125.04	119.90
5	A	778	C	O4'-C1'-N1	8.56	115.05	108.20
5	A	1703	C	O4'-C1'-N1	8.56	115.05	108.20
5	A	2171	G	N1-C6-O6	8.56	125.04	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	67	G	N1-C6-O6	8.56	125.04	119.90
5	A	35	G	N1-C6-O6	8.56	125.03	119.90
5	A	1068	G	N1-C6-O6	8.56	125.03	119.90
5	A	1594	G	N1-C6-O6	8.56	125.03	119.90
5	A	303	G	C5-C6-O6	-8.55	123.47	128.60
5	A	596	G	C5-C6-O6	-8.56	123.47	128.60
5	A	696	C	O4'-C1'-N1	8.56	115.05	108.20
5	A	725	C	O4'-C1'-N1	8.55	115.04	108.20
5	A	188	C	O4'-C1'-N1	8.55	115.04	108.20
5	A	1252	G	N1-C6-O6	8.55	125.03	119.90
5	A	499	G	N1-C6-O6	8.55	125.03	119.90
5	A	1577	C	O4'-C1'-N1	8.55	115.04	108.20
5	A	1544	C	N3-C4-N4	8.55	123.98	118.00
5	A	2280	G	N1-C6-O6	8.55	125.03	119.90
5	A	2483	G	O4'-C1'-N9	8.55	115.04	108.20
5	A	296	G	N1-C6-O6	8.55	125.03	119.90
5	A	63	G	N1-C6-O6	8.54	125.03	119.90
5	A	351	G	N1-C6-O6	8.54	125.03	119.90
5	A	598	U	O4'-C1'-N1	8.54	115.03	108.20
5	A	2425	G	C5-C6-O6	-8.54	123.47	128.60
5	A	2884	G	N1-C6-O6	8.54	125.02	119.90
5	A	716	G	N1-C6-O6	8.54	125.02	119.90
5	A	1830	G	N1-C6-O6	8.53	125.02	119.90
5	A	2248	G	C5-C6-O6	-8.54	123.48	128.60
5	A	2486	U	O4'-C1'-N1	8.53	115.03	108.20
5	A	1431	G	N1-C6-O6	8.53	125.02	119.90
5	A	804	G	C5-C6-O6	-8.53	123.48	128.60
5	A	819	G	C5-C6-O6	-8.53	123.48	128.60
5	A	2232	G	N1-C6-O6	8.53	125.02	119.90
5	A	2203	C	O4'-C1'-N1	8.52	115.02	108.20
5	A	373	A	O4'-C1'-N9	8.52	115.02	108.20
5	A	649	G	N1-C6-O6	8.52	125.01	119.90
5	A	2795	G	C5-C6-O6	-8.52	123.49	128.60
5	A	298	U	O4'-C1'-N1	8.52	115.01	108.20
5	A	1950	G	N1-C6-O6	8.52	125.01	119.90
5	A	54	G	N1-C6-O6	8.52	125.01	119.90
5	A	321	U	O4'-C1'-N1	8.52	115.01	108.20
5	A	995	U	O4'-C1'-N1	8.52	115.01	108.20
5	A	534	C	O4'-C1'-N1	8.51	115.01	108.20
5	A	516	G	N1-C6-O6	8.51	125.01	119.90
5	A	1085	G	C5-C6-O6	-8.51	123.50	128.60
5	A	2098	G	N1-C6-O6	8.51	125.01	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	60	C	O4'-C1'-N1	8.51	115.01	108.20
6	B	107	G	O4'-C1'-N9	8.51	115.01	108.20
5	A	1253	A	C4-C5-C6	8.51	121.25	117.00
5	A	1400	G	C5-C6-O6	-8.51	123.50	128.60
5	A	2911	G	N1-C6-O6	8.51	125.00	119.90
5	A	352	G	N1-C6-O6	8.50	125.00	119.90
5	A	360	C	O4'-C1'-N1	8.50	115.00	108.20
5	A	1102	G	N1-C6-O6	8.50	125.00	119.90
5	A	2360	G	N1-C6-O6	8.50	125.00	119.90
5	A	441	C	O4'-C1'-N1	8.50	115.00	108.20
5	A	2255	C	O4'-C1'-N1	8.50	115.00	108.20
5	A	891	G	N1-C6-O6	8.50	125.00	119.90
5	A	973	G	C5-C6-O6	-8.50	123.50	128.60
5	A	1292	G	N1-C6-O6	8.50	125.00	119.90
5	A	1040	C	O4'-C1'-N1	8.50	115.00	108.20
5	A	1198	C	O4'-C1'-N1	8.49	115.00	108.20
5	A	1109	G	N1-C6-O6	8.49	125.00	119.90
5	A	2534	G	N1-C6-O6	8.49	125.00	119.90
5	A	308	C	O4'-C1'-N1	8.49	114.99	108.20
5	A	1482	G	N1-C6-O6	8.49	124.99	119.90
5	A	701	G	N1-C6-O6	8.49	124.99	119.90
5	A	1114	G	N1-C6-O6	8.48	124.99	119.90
5	A	1935	G	N1-C6-O6	8.48	124.99	119.90
5	A	141	U	O4'-C1'-N1	8.48	114.98	108.20
5	A	741	U	O4'-C1'-N1	8.48	114.98	108.20
5	A	1472	G	N1-C6-O6	8.48	124.99	119.90
5	A	491	C	O4'-C1'-N1	8.48	114.98	108.20
5	A	2095	C	O4'-C1'-N1	8.48	114.98	108.20
5	A	2101	G	C5-C6-O6	-8.48	123.51	128.60
6	B	95	U	O4'-C1'-N1	8.48	114.98	108.20
5	A	92	G	N1-C6-O6	8.47	124.98	119.90
5	A	843	C	O4'-C1'-N1	8.47	114.98	108.20
5	A	1117	G	P-O3'-C3'	8.47	129.87	119.70
5	A	1754	U	O4'-C1'-N1	8.47	114.98	108.20
5	A	2300	G	N1-C6-O6	8.47	124.98	119.90
5	A	512	G	N1-C6-O6	8.47	124.98	119.90
5	A	2874	G	N1-C6-O6	8.47	124.98	119.90
5	A	2891	G	N1-C6-O6	8.47	124.98	119.90
6	B	2	U	O4'-C1'-N1	8.47	114.97	108.20
5	A	2882	G	N1-C6-O6	8.47	124.98	119.90
5	A	1512	G	N1-C6-O6	8.46	124.98	119.90
5	A	54	G	O4'-C1'-N9	8.46	114.97	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	195	C	O4'-C1'-N1	8.46	114.97	108.20
5	A	492	C	O4'-C1'-N1	8.46	114.97	108.20
5	A	2401	G	C5-C6-O6	-8.46	123.52	128.60
5	A	1680	A	P-O3'-C3'	8.46	129.85	119.70
5	A	2628	G	C5-C6-O6	-8.46	123.53	128.60
5	A	1946	U	O4'-C1'-N1	8.46	114.97	108.20
5	A	697	G	O4'-C1'-N9	8.45	114.96	108.20
5	A	2600	U	O4'-C1'-N1	8.45	114.96	108.20
6	B	47	C	O4'-C1'-N1	8.45	114.96	108.20
5	A	40	U	O4'-C1'-N1	8.45	114.96	108.20
5	A	1951	G	C5-C6-O6	-8.45	123.53	128.60
5	A	2509	C	O4'-C1'-N1	8.45	114.96	108.20
5	A	2559	U	O4'-C1'-N1	8.45	114.96	108.20
5	A	2162	G	N1-C6-O6	8.45	124.97	119.90
5	A	2186	G	N1-C6-O6	8.45	124.97	119.90
5	A	556	C	O4'-C1'-N1	8.45	114.96	108.20
5	A	1280	G	O4'-C1'-N9	8.45	114.96	108.20
5	A	2599	G	C5-C6-O6	-8.45	123.53	128.60
5	A	1067	A	O4'-C1'-N9	8.44	114.95	108.20
5	A	2393	C	O4'-C1'-N1	8.44	114.95	108.20
5	A	440	U	O4'-C1'-N1	8.44	114.95	108.20
5	A	520	G	C5-C6-O6	-8.44	123.54	128.60
5	A	1246	G	P-O5'-C5'	8.44	134.40	120.90
5	A	846	G	N1-C6-O6	8.44	124.96	119.90
5	A	1748	G	N1-C6-O6	8.44	124.96	119.90
5	A	2085	G	N1-C6-O6	8.44	124.96	119.90
5	A	2796	C	O4'-C1'-N1	8.44	114.95	108.20
5	A	2859	G	C8-N9-C4	-8.44	103.03	106.40
5	A	1208	G	N1-C6-O6	8.43	124.96	119.90
5	A	1407	G	O4'-C1'-N9	8.43	114.95	108.20
5	A	1698	G	C5-C6-O6	-8.43	123.54	128.60
5	A	2811	G	N1-C6-O6	8.43	124.96	119.90
5	A	2237	C	O4'-C1'-N1	8.43	114.94	108.20
5	A	2279	G	N1-C6-O6	8.43	124.96	119.90
5	A	266	U	O4'-C1'-N1	8.43	114.94	108.20
5	A	2568	C	O4'-C1'-N1	8.43	114.94	108.20
5	A	946	G	N1-C6-O6	8.43	124.96	119.90
5	A	1821	G	N1-C6-O6	8.43	124.96	119.90
5	A	1411	U	O4'-C1'-N1	8.42	114.94	108.20
5	A	1120	G	N1-C6-O6	8.42	124.95	119.90
5	A	2555	G	N1-C6-O6	8.42	124.95	119.90
5	A	1459	U	O4'-C1'-N1	8.41	114.93	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2710	C	O4'-C1'-N1	8.41	114.93	108.20
5	A	666	G	N1-C6-O6	8.41	124.95	119.90
5	A	2578	G	C5-C6-O6	-8.41	123.55	128.60
5	A	1510	G	N1-C6-O6	8.41	124.95	119.90
5	A	2086	G	N1-C6-O6	8.41	124.95	119.90
5	A	1744	G	N1-C6-O6	8.41	124.95	119.90
5	A	2207	C	P-O3'-C3'	8.41	129.79	119.70
5	A	913	A	C5-C6-N6	-8.41	116.97	123.70
5	A	1461	A	C5-C6-N6	-8.41	116.97	123.70
5	A	815	G	C5-C6-O6	-8.40	123.56	128.60
5	A	2367	G	C5-C6-O6	-8.40	123.56	128.60
5	A	138	U	O4'-C1'-N1	8.40	114.92	108.20
5	A	1414	G	O4'-C1'-N9	8.40	114.92	108.20
5	A	2102	C	O4'-C1'-N1	8.40	114.92	108.20
5	A	2771	G	C5-C6-O6	-8.40	123.56	128.60
5	A	1053	C	O4'-C1'-N1	8.40	114.92	108.20
5	A	1639	G	N1-C6-O6	8.40	124.94	119.90
5	A	1958	G	N1-C6-O6	8.40	124.94	119.90
5	A	1564	C	O4'-C1'-N1	8.40	114.92	108.20
5	A	1684	U	O4'-C1'-N1	8.40	114.92	108.20
5	A	2177	G	N1-C6-O6	8.40	124.94	119.90
5	A	610	U	O4'-C1'-N1	8.40	114.92	108.20
5	A	962	C	O4'-C1'-N1	8.40	114.92	108.20
5	A	1640	G	N1-C6-O6	8.40	124.94	119.90
5	A	2261	C	O4'-C1'-N1	8.40	114.92	108.20
5	A	2859	G	N1-C6-O6	8.40	124.94	119.90
5	A	367	G	C5-C6-O6	-8.39	123.56	128.60
5	A	409	U	O4'-C1'-N1	8.39	114.91	108.20
5	A	2067	G	C5-C6-O6	-8.39	123.56	128.60
5	A	636	G	C5-C6-O6	-8.39	123.56	128.60
5	A	795	G	N1-C6-O6	8.39	124.94	119.90
5	A	1479	G	N1-C6-O6	8.39	124.94	119.90
5	A	1378	G	N1-C6-O6	8.39	124.93	119.90
5	A	1794	C	O4'-C1'-N1	8.39	114.91	108.20
5	A	2159	U	O4'-C1'-N1	8.39	114.91	108.20
5	A	17	G	C5-C6-O6	-8.38	123.57	128.60
5	A	1276	G	N3-C2-N2	8.38	125.77	119.90
5	A	1713	A	C5-C6-N6	-8.38	116.99	123.70
5	A	2136	C	O4'-C1'-N1	8.38	114.91	108.20
5	A	70	G	C5-C6-O6	-8.38	123.57	128.60
5	A	120	G	C5-C6-O6	-8.38	123.57	128.60
5	A	461	C	N3-C4-N4	8.38	123.87	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	658	A	O4'-C1'-N9	8.38	114.91	108.20
5	A	2545	G	C5-C6-O6	-8.38	123.57	128.60
5	A	155	U	O4'-C1'-N1	8.38	114.90	108.20
5	A	1711	G	O4'-C1'-N9	8.38	114.90	108.20
5	A	865	G	O4'-C1'-N9	8.38	114.90	108.20
5	A	2013	U	O4'-C1'-N1	8.38	114.90	108.20
5	A	201	C	O4'-C1'-N1	8.38	114.90	108.20
5	A	1871	G	C5-C6-O6	-8.38	123.58	128.60
5	A	2579	G	N1-C6-O6	8.38	124.92	119.90
5	A	542	G	N1-C6-O6	8.37	124.92	119.90
5	A	2809	G	N1-C6-O6	8.37	124.92	119.90
5	A	1319	G	C5-C6-O6	-8.37	123.58	128.60
5	A	1819	C	O4'-C1'-N1	8.37	114.90	108.20
5	A	694	G	C5-C6-O6	-8.37	123.58	128.60
5	A	109	G	O4'-C1'-N9	8.36	114.89	108.20
5	A	2050	G	N1-C6-O6	8.37	124.92	119.90
5	A	2169	G	N1-C6-O6	8.36	124.92	119.90
5	A	2040	U	O4'-C1'-N1	8.36	114.89	108.20
5	A	2649	C	O4'-C1'-N1	8.36	114.89	108.20
5	A	2266	G	O4'-C1'-N9	8.36	114.89	108.20
5	A	2388	C	C6-N1-C2	-8.36	116.96	120.30
5	A	1119	A	O4'-C1'-N9	8.36	114.89	108.20
5	A	2621	G	N1-C6-O6	8.36	124.91	119.90
5	A	493	G	N1-C6-O6	8.35	124.91	119.90
5	A	288	C	O4'-C1'-N1	8.35	114.88	108.20
5	A	1817	C	O4'-C1'-N1	8.35	114.88	108.20
5	A	36	G	C5-C6-O6	-8.35	123.59	128.60
6	B	28	C	O4'-C1'-N1	8.35	114.88	108.20
5	A	1417	A	C5-C6-N6	-8.34	117.03	123.70
5	A	626	G	C5-C6-O6	-8.34	123.59	128.60
5	A	605	G	N1-C6-O6	8.34	124.90	119.90
5	A	783	C	O4'-C1'-N1	8.34	114.87	108.20
5	A	1062	C	O4'-C1'-N1	8.34	114.87	108.20
5	A	1207	C	O4'-C1'-N1	8.34	114.87	108.20
5	A	1733	U	O4'-C1'-N1	8.34	114.87	108.20
5	A	1341	U	O4'-C1'-N1	8.34	114.87	108.20
5	A	909	G	N1-C6-O6	8.34	124.90	119.90
5	A	1992	C	O4'-C1'-N1	8.34	114.87	108.20
5	A	1476	C	O4'-C1'-N1	8.33	114.87	108.20
5	A	1538	G	C5-C6-O6	-8.33	123.60	128.60
5	A	2354	G	C5-C6-O6	-8.33	123.60	128.60
5	A	2400	G	C5-C6-O6	-8.33	123.60	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2515	G	O4'-C1'-N9	8.33	114.87	108.20
5	A	1110	C	O4'-C1'-N1	8.33	114.86	108.20
5	A	852	G	N1-C6-O6	8.33	124.90	119.90
5	A	2127	U	O4'-C1'-N1	8.33	114.86	108.20
5	A	191	G	N1-C6-O6	8.33	124.90	119.90
5	A	604	C	O4'-C1'-N1	8.33	114.86	108.20
5	A	856	G	N1-C6-O6	8.33	124.90	119.90
5	A	2161	G	O4'-C1'-N9	8.33	114.86	108.20
5	A	2553	G	C5-C6-O6	-8.33	123.60	128.60
5	A	1826	C	N3-C4-N4	8.32	123.83	118.00
5	A	472	G	O4'-C1'-N9	8.32	114.86	108.20
5	A	1019	A	O4'-C1'-N9	8.32	114.86	108.20
5	A	768	G	C5-C6-O6	-8.32	123.61	128.60
5	A	1749	G	N1-C6-O6	8.32	124.89	119.90
5	A	2212	C	O4'-C1'-N1	8.32	114.85	108.20
5	A	2142	C	O4'-C1'-N1	8.31	114.85	108.20
5	A	2659	G	O4'-C1'-N9	8.31	114.85	108.20
6	B	24	C	O4'-C1'-N1	8.31	114.85	108.20
5	A	2422	U	O4'-C1'-N1	8.31	114.85	108.20
5	A	1706	G	O4'-C1'-N9	8.31	114.85	108.20
5	A	1082	G	C5-C6-O6	-8.31	123.62	128.60
5	A	2465	G	N1-C6-O6	8.31	124.88	119.90
5	A	2507	A	N1-C6-N6	8.31	123.58	118.60
6	B	32	U	O4'-C1'-N1	8.31	114.84	108.20
5	A	803	C	O4'-C1'-N1	8.30	114.84	108.20
5	A	2824	G	N1-C6-O6	8.30	124.88	119.90
5	A	158	C	O4'-C1'-N1	8.30	114.84	108.20
5	A	1063	G	C5-C6-O6	-8.30	123.62	128.60
5	A	13	A	N1-C6-N6	8.29	123.58	118.60
5	A	2208	C	O4'-C1'-N1	8.29	114.83	108.20
5	A	255	G	C5-C6-O6	-8.29	123.62	128.60
5	A	1650	C	O4'-C1'-N1	8.29	114.83	108.20
5	A	1664	G	C5-C6-O6	-8.29	123.63	128.60
5	A	1273	G	C5-C6-O6	-8.29	123.63	128.60
5	A	1559	C	O4'-C1'-N1	8.29	114.83	108.20
5	A	2359	G	C5-C6-O6	-8.29	123.63	128.60
5	A	2788	G	C5-C6-O6	-8.29	123.63	128.60
5	A	2821	U	O4'-C1'-N1	8.29	114.83	108.20
5	A	827	G	N1-C6-O6	8.28	124.87	119.90
5	A	101	G	N1-C6-O6	8.28	124.87	119.90
5	A	515	G	N1-C6-O6	8.28	124.87	119.90
5	A	972	U	O4'-C1'-N1	8.28	114.82	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1943	C	C2-N1-C1'	8.28	127.90	118.80
6	B	41	C	O4'-C1'-N1	8.28	114.82	108.20
5	A	310	C	O4'-C1'-N1	8.27	114.82	108.20
5	A	1214	U	O4'-C1'-N1	8.27	114.82	108.20
5	A	2828	G	N1-C6-O6	8.27	124.86	119.90
5	A	97	C	O4'-C1'-N1	8.27	114.81	108.20
5	A	181	G	O4'-C1'-N9	8.27	114.81	108.20
5	A	406	G	N1-C6-O6	8.27	124.86	119.90
5	A	877	G	N1-C6-O6	8.26	124.86	119.90
5	A	82	G	N1-C6-O6	8.26	124.86	119.90
5	A	1445	A	O4'-C1'-N9	8.26	114.81	108.20
5	A	1985	U	O4'-C1'-N1	8.26	114.81	108.20
5	A	253	G	N1-C6-O6	8.26	124.86	119.90
5	A	435	G	N1-C6-O6	8.26	124.86	119.90
5	A	2250	G	N1-C6-O6	8.26	124.86	119.90
5	A	1579	A	O4'-C1'-N9	8.26	114.80	108.20
5	A	2647	G	N1-C6-O6	8.26	124.85	119.90
5	A	558	G	N1-C6-O6	8.25	124.85	119.90
5	A	747	G	N1-C6-O6	8.25	124.85	119.90
5	A	959	C	C2-N3-C4	8.25	124.03	119.90
5	A	985	G	N1-C6-O6	8.25	124.85	119.90
5	A	1318	G	C5-C6-O6	-8.25	123.65	128.60
5	A	2211	G	N1-C6-O6	8.25	124.85	119.90
5	A	482	C	O4'-C1'-N1	8.24	114.80	108.20
5	A	1547	U	O4'-C1'-N1	8.24	114.80	108.20
5	A	2283	C	O4'-C1'-N1	8.24	114.80	108.20
5	A	2544	C	O4'-C1'-N1	8.24	114.80	108.20
5	A	2718	U	P-O3'-C3'	8.24	129.59	119.70
5	A	2630	C	P-O5'-C5'	8.24	134.09	120.90
5	A	148	G	O4'-C1'-N9	8.24	114.79	108.20
5	A	669	C	O4'-C1'-N1	8.24	114.79	108.20
5	A	1343	C	O4'-C1'-N1	8.24	114.79	108.20
5	A	2096	G	N1-C6-O6	8.24	124.84	119.90
5	A	2597	C	O4'-C1'-N1	8.24	114.79	108.20
6	B	111	C	O4'-C1'-N1	8.24	114.79	108.20
5	A	1481	G	C5-C6-O6	-8.24	123.66	128.60
5	A	2217	U	O4'-C1'-N1	8.24	114.79	108.20
5	A	2552	G	C5-C6-O6	-8.24	123.66	128.60
5	A	1206	G	C5-C6-O6	-8.23	123.66	128.60
5	A	552	G	N1-C6-O6	8.23	124.84	119.90
5	A	554	U	O4'-C1'-N1	8.23	114.78	108.20
5	A	908	A	N1-C6-N6	8.23	123.54	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1408	G	P-O5'-C5'	8.23	134.07	120.90
5	A	2390	A	O4'-C1'-N9	8.23	114.78	108.20
5	A	2231	C	O4'-C1'-N1	8.23	114.78	108.20
5	A	706	C	O4'-C1'-N1	8.22	114.78	108.20
5	A	1199	C	O4'-C1'-N1	8.22	114.78	108.20
5	A	1550	C	O4'-C1'-N1	8.22	114.78	108.20
5	A	883	G	C5-C6-O6	-8.22	123.67	128.60
5	A	1348	G	C5-C6-O6	-8.22	123.67	128.60
5	A	2657	C	O4'-C1'-N1	8.22	114.77	108.20
5	A	2310	C	O4'-C1'-N1	8.21	114.77	108.20
5	A	620	U	O4'-C1'-N1	8.21	114.77	108.20
5	A	2866	C	O4'-C1'-N1	8.21	114.77	108.20
5	A	774	A	N1-C6-N6	8.21	123.53	118.60
5	A	709	G	C5-C6-O6	-8.21	123.68	128.60
5	A	2829	G	O4'-C1'-N9	8.21	114.77	108.20
5	A	1279	C	O4'-C1'-N1	8.21	114.76	108.20
5	A	2533	U	O4'-C1'-N1	8.21	114.76	108.20
5	A	1511	C	O4'-C1'-N1	8.20	114.76	108.20
5	A	903	G	N1-C6-O6	8.20	124.82	119.90
5	A	2235	G	C5-C6-O6	-8.19	123.69	128.60
5	A	2399	G	C5-C6-O6	-8.19	123.69	128.60
6	B	109	C	O4'-C1'-N1	8.19	114.75	108.20
5	A	742	G	C5-C6-O6	-8.19	123.69	128.60
5	A	2797	C	O4'-C1'-N1	8.19	114.75	108.20
5	A	2817	C	O4'-C1'-N1	8.19	114.75	108.20
5	A	1248	C	O4'-C1'-N1	8.18	114.75	108.20
5	A	1659	A	O4'-C1'-N9	8.18	114.75	108.20
5	A	657	G	N1-C6-O6	8.18	124.81	119.90
5	A	1049	G	C5-C6-O6	-8.18	123.69	128.60
5	A	2441	A	N1-C6-N6	8.18	123.51	118.60
5	A	1017	C	O4'-C1'-N1	8.18	114.74	108.20
5	A	2033	G	N1-C6-O6	8.18	124.81	119.90
5	A	2583	U	O4'-C1'-N1	8.18	114.74	108.20
5	A	928	G	N1-C6-O6	8.17	124.80	119.90
5	A	2333	G	N1-C6-O6	8.17	124.80	119.90
5	A	1840	G	C5-C6-O6	-8.17	123.70	128.60
5	A	2318	G	C5-C6-O6	-8.17	123.70	128.60
5	A	2457	G	P-O3'-C3'	8.17	129.51	119.70
5	A	1023	G	C5-C6-O6	-8.17	123.70	128.60
5	A	1779	G	O4'-C1'-N9	8.17	114.74	108.20
5	A	2347	G	O4'-C1'-N9	8.17	114.74	108.20
5	A	2006	A	C5-C6-N6	-8.17	117.17	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2714	G	C5-C6-O6	-8.17	123.70	128.60
5	A	1244	A	O4'-C1'-N9	8.17	114.73	108.20
6	B	58	C	O4'-C1'-N1	8.17	114.73	108.20
5	A	997	C	O4'-C1'-N1	8.16	114.73	108.20
5	A	2664	U	O4'-C1'-N1	8.16	114.73	108.20
5	A	1033	C	O4'-C1'-N1	8.16	114.73	108.20
5	A	1420	G	O4'-C1'-N9	8.16	114.73	108.20
5	A	387	C	O4'-C1'-N1	8.16	114.73	108.20
5	A	1159	U	O4'-C1'-N1	8.16	114.73	108.20
5	A	2846	A	O4'-C1'-N9	8.16	114.73	108.20
5	A	2832	G	C5-C6-O6	-8.16	123.70	128.60
5	A	121	G	C5-C6-O6	-8.16	123.71	128.60
5	A	515	G	O4'-C1'-N9	8.16	114.73	108.20
5	A	924	U	P-O5'-C5'	8.15	133.95	120.90
6	B	62	U	O4'-C1'-N1	8.15	114.72	108.20
5	A	256	C	O4'-C1'-N1	8.15	114.72	108.20
5	A	1315	G	C5-C6-O6	-8.15	123.71	128.60
5	A	1625	C	O4'-C1'-N1	8.15	114.72	108.20
5	A	680	G	O4'-C1'-N9	8.15	114.72	108.20
6	B	16	G	C5-C6-O6	-8.15	123.71	128.60
5	A	1806	U	O4'-C1'-N1	8.14	114.72	108.20
5	A	660	G	N1-C6-O6	8.14	124.79	119.90
5	A	2002	G	N1-C6-O6	8.14	124.79	119.90
5	A	2792	G	O4'-C1'-N9	8.14	114.72	108.20
5	A	358	C	O4'-C1'-N1	8.14	114.71	108.20
5	A	1700	A	O4'-C1'-N9	8.14	114.71	108.20
5	A	1758	U	O4'-C1'-N1	8.14	114.71	108.20
5	A	2073	C	O4'-C1'-N1	8.14	114.71	108.20
5	A	353	A	C4-C5-C6	8.14	121.07	117.00
5	A	399	C	O4'-C1'-N1	8.14	114.71	108.20
5	A	2267	G	N1-C6-O6	8.14	124.78	119.90
5	A	472	G	C5-C6-O6	-8.14	123.72	128.60
5	A	750	U	O4'-C1'-N1	8.14	114.71	108.20
5	A	1637	G	N1-C6-O6	8.14	124.78	119.90
5	A	1855	C	O4'-C1'-N1	8.13	114.71	108.20
5	A	2035	C	O4'-C1'-N1	8.13	114.71	108.20
5	A	152	C	O4'-C1'-N1	8.13	114.70	108.20
5	A	1670	C	O4'-C1'-N1	8.13	114.71	108.20
5	A	1070	G	N1-C6-O6	8.13	124.78	119.90
5	A	333	A	C5-C6-N6	-8.13	117.20	123.70
5	A	2156	G	C5-C6-O6	-8.13	123.72	128.60
5	A	295	G	N1-C6-O6	8.12	124.77	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	311	U	O4'-C1'-N1	8.12	114.70	108.20
5	A	1018	G	O4'-C1'-N9	8.12	114.70	108.20
5	A	2289	C	O4'-C1'-N1	8.12	114.70	108.20
5	A	2514	G	C5-C6-O6	-8.12	123.73	128.60
5	A	1035	G	N1-C6-O6	8.12	124.77	119.90
5	A	1150	C	O4'-C1'-N1	8.12	114.70	108.20
5	A	1954	C	O4'-C1'-N1	8.12	114.70	108.20
5	A	1978	G	C5-C6-O6	-8.12	123.73	128.60
5	A	671	G	C5-C6-O6	-8.12	123.73	128.60
5	A	1016	U	O4'-C1'-N1	8.12	114.69	108.20
5	A	1027	A	O4'-C1'-N9	8.12	114.69	108.20
5	A	2115	U	O4'-C1'-N1	8.12	114.69	108.20
5	A	2210	G	O4'-C1'-N9	8.12	114.69	108.20
5	A	187	C	O4'-C1'-N1	8.11	114.69	108.20
5	A	1546	G	O4'-C1'-N9	8.11	114.69	108.20
5	A	2249	G	C5-C6-O6	-8.11	123.73	128.60
5	A	2420	G	N1-C6-O6	8.11	124.77	119.90
5	A	2008	C	O4'-C1'-N1	8.10	114.68	108.20
5	A	468	C	O4'-C1'-N1	8.09	114.67	108.20
5	A	1282	U	O4'-C1'-N1	8.09	114.67	108.20
5	A	2414	C	O4'-C1'-N1	8.09	114.68	108.20
5	A	1203	G	C5-C6-O6	-8.09	123.75	128.60
5	A	853	C	O4'-C1'-N1	8.09	114.67	108.20
5	A	1057	G	O4'-C1'-N9	8.09	114.67	108.20
5	A	1595	U	P-O3'-C3'	8.09	129.41	119.70
5	A	1857	G	N1-C6-O6	8.09	124.75	119.90
5	A	2818	C	P-O3'-C3'	8.09	129.41	119.70
5	A	563	C	O4'-C1'-N1	8.09	114.67	108.20
5	A	1780	C	O4'-C1'-N1	8.09	114.67	108.20
5	A	1229	U	O4'-C1'-N1	8.08	114.67	108.20
5	A	1439	U	P-O5'-C5'	8.08	133.83	120.90
5	A	1503	G	P-O5'-C5'	8.08	133.83	120.90
5	A	2003	C	O4'-C1'-N1	8.08	114.67	108.20
5	A	2243	C	O4'-C1'-N1	8.08	114.67	108.20
6	B	36	C	O4'-C1'-N1	8.08	114.67	108.20
5	A	1767	A	P-O3'-C3'	8.08	129.40	119.70
5	A	1079	U	O4'-C1'-N1	8.08	114.66	108.20
5	A	1750	G	O4'-C1'-N9	8.08	114.66	108.20
5	A	812	G	C5-C6-O6	-8.07	123.76	128.60
5	A	1007	G	O4'-C1'-N9	8.07	114.66	108.20
5	A	2503	C	O4'-C1'-N1	8.07	114.66	108.20
5	A	2526	A	P-O3'-C3'	8.07	129.39	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2630	C	O4'-C1'-N1	8.07	114.66	108.20
5	A	2892	G	C5-C6-O6	-8.07	123.76	128.60
5	A	1064	U	O4'-C1'-N1	8.07	114.66	108.20
5	A	1705	C	O4'-C1'-N1	8.07	114.66	108.20
5	A	2113	C	O4'-C1'-N1	8.07	114.66	108.20
5	A	2733	C	N3-C4-N4	8.07	123.65	118.00
5	A	2116	G	C5-C6-O6	-8.07	123.76	128.60
5	A	2573	G	C5-C6-O6	-8.07	123.76	128.60
5	A	2921	U	O4'-C1'-N1	8.07	114.66	108.20
5	A	422	C	O4'-C1'-N1	8.07	114.65	108.20
5	A	2527	C	P-O5'-C5'	8.07	133.81	120.90
5	A	2804	A	O4'-C1'-N9	8.07	114.65	108.20
5	A	1010	C	O4'-C1'-N1	8.06	114.65	108.20
5	A	2458	G	N1-C6-O6	8.06	124.74	119.90
5	A	170	G	C5-C6-O6	-8.06	123.77	128.60
5	A	1574	G	N1-C6-O6	8.06	124.73	119.90
5	A	1630	G	N1-C6-O6	8.06	124.73	119.90
5	A	2752	C	O4'-C1'-N1	8.06	114.65	108.20
5	A	56	A	C5-C6-N6	-8.06	117.25	123.70
5	A	258	A	O4'-C1'-N9	8.06	114.64	108.20
5	A	1224	A	O4'-C1'-N9	8.06	114.64	108.20
5	A	920	G	C5-C6-O6	-8.05	123.77	128.60
5	A	994	C	O4'-C1'-N1	8.05	114.64	108.20
5	A	1643	C	O4'-C1'-N1	8.05	114.64	108.20
5	A	2731	G	N1-C6-O6	8.05	124.73	119.90
5	A	891	G	O4'-C1'-N9	8.05	114.64	108.20
5	A	1632	G	C5-C6-O6	-8.05	123.77	128.60
5	A	1842	C	O4'-C1'-N1	8.05	114.64	108.20
5	A	1977	G	C5-C6-O6	-8.05	123.77	128.60
5	A	2210	G	N1-C6-O6	8.05	124.73	119.90
6	B	75	U	O4'-C1'-N1	8.05	114.64	108.20
5	A	2011	U	O4'-C1'-N1	8.05	114.64	108.20
5	A	2371	C	O4'-C1'-N1	8.05	114.64	108.20
5	A	282	G	C5-C6-O6	-8.05	123.77	128.60
5	A	1257	C	O4'-C1'-N1	8.05	114.64	108.20
5	A	2652	G	C5-C6-O6	-8.05	123.77	128.60
5	A	268	A	O4'-C1'-N9	8.04	114.64	108.20
5	A	2527	C	O4'-C1'-N1	8.04	114.64	108.20
5	A	2706	G	O4'-C1'-N9	8.04	114.64	108.20
5	A	986	G	C5-C6-O6	-8.04	123.77	128.60
5	A	1721	A	O4'-C1'-N9	8.04	114.63	108.20
5	A	1408	G	O4'-C1'-N9	8.04	114.63	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2706	G	C5-C6-O6	-8.03	123.78	128.60
5	A	2770	A	N1-C6-N6	8.03	123.42	118.60
6	B	38	U	O4'-C1'-N1	8.03	114.63	108.20
5	A	50	U	P-O3'-C3'	8.03	129.34	119.70
5	A	453	G	C5-C6-O6	-8.03	123.78	128.60
5	A	1856	U	O4'-C1'-N1	8.03	114.63	108.20
5	A	2456	C	P-O5'-C5'	8.03	133.75	120.90
5	A	389	A	O4'-C1'-N9	8.03	114.62	108.20
5	A	928	G	O4'-C1'-N9	8.03	114.62	108.20
5	A	621	G	C5-C6-O6	-8.03	123.78	128.60
5	A	785	C	O4'-C1'-N1	8.03	114.62	108.20
5	A	2307	A	O4'-C1'-N9	8.03	114.62	108.20
5	A	2308	G	C5-C6-O6	-8.03	123.78	128.60
5	A	356	G	N1-C6-O6	8.03	124.72	119.90
5	A	2766	G	C5-C6-O6	-8.02	123.78	128.60
5	A	31	C	O4'-C1'-N1	8.02	114.62	108.20
5	A	816	U	O4'-C1'-N1	8.02	114.62	108.20
5	A	2133	C	N3-C4-N4	8.02	123.61	118.00
5	A	2247	C	O4'-C1'-N1	8.02	114.62	108.20
5	A	2495	C	O4'-C1'-N1	8.02	114.61	108.20
5	A	844	U	O4'-C1'-N1	8.02	114.61	108.20
5	A	1807	U	O4'-C1'-N1	8.02	114.61	108.20
5	A	735	U	O4'-C1'-N1	8.01	114.61	108.20
5	A	898	U	O4'-C1'-N1	8.01	114.61	108.20
5	A	2680	C	O4'-C1'-N1	8.01	114.61	108.20
5	A	514	G	O4'-C1'-N9	8.01	114.61	108.20
5	A	1645	C	O4'-C1'-N1	8.01	114.61	108.20
5	A	129	C	O4'-C1'-N1	8.01	114.61	108.20
5	A	944	C	O4'-C1'-N1	8.01	114.60	108.20
5	A	1473	A	O4'-C1'-N9	8.00	114.60	108.20
5	A	1221	A	C5-C6-N6	-8.00	117.30	123.70
5	A	1528	U	O4'-C1'-N1	8.00	114.60	108.20
5	A	1777	G	C5-C6-O6	-8.00	123.80	128.60
5	A	2715	G	N1-C6-O6	8.00	124.70	119.90
5	A	832	G	C5-C6-O6	-8.00	123.80	128.60
5	A	1974	G	C5-C6-O6	-8.00	123.80	128.60
5	A	1825	U	O4'-C1'-N1	8.00	114.60	108.20
5	A	779	C	O4'-C1'-N1	8.00	114.60	108.20
5	A	417	G	C5-C6-O6	-7.99	123.80	128.60
5	A	646	A	O4'-C1'-N9	7.99	114.59	108.20
5	A	932	C	O4'-C1'-N1	7.99	114.59	108.20
5	A	2130	G	O4'-C1'-N9	7.99	114.59	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	82	G	C5-C6-O6	-7.99	123.80	128.60
5	A	518	A	C4-C5-C6	7.99	121.00	117.00
5	A	1613	C	P-O3'-C3'	7.99	129.29	119.70
5	A	1668	G	C5-C6-O6	-7.99	123.81	128.60
5	A	1990	C	O4'-C1'-N1	7.99	114.59	108.20
5	A	2781	C	O4'-C1'-N1	7.99	114.59	108.20
5	A	1038	C	O4'-C1'-N1	7.99	114.59	108.20
5	A	1241	C	O4'-C1'-N1	7.99	114.59	108.20
5	A	1515	C	O4'-C1'-N1	7.98	114.59	108.20
5	A	2814	U	O4'-C1'-N1	7.98	114.58	108.20
5	A	2510	G	P-O3'-C3'	7.98	129.28	119.70
5	A	2749	U	O4'-C1'-N1	7.98	114.58	108.20
5	A	1527	C	O4'-C1'-N1	7.97	114.58	108.20
5	A	2428	G	C5-C6-O6	-7.97	123.81	128.60
6	B	22	G	N1-C6-O6	7.97	124.68	119.90
5	A	655	C	O4'-C1'-N1	7.97	114.58	108.20
5	A	1930	A	O4'-C1'-N9	7.97	114.58	108.20
5	A	2410	C	O4'-C1'-N1	7.97	114.58	108.20
5	A	1210	A	O4'-C1'-N9	7.97	114.57	108.20
5	A	2699	G	C5-C6-O6	-7.97	123.82	128.60
5	A	164	U	O4'-C1'-N1	7.96	114.57	108.20
5	A	332	G	C5-C6-O6	-7.96	123.82	128.60
5	A	2236	C	P-O5'-C5'	7.96	133.64	120.90
5	A	1455	C	O4'-C1'-N1	7.96	114.57	108.20
5	A	1728	C	O4'-C1'-N1	7.96	114.57	108.20
5	A	539	G	C5-C6-O6	-7.96	123.82	128.60
5	A	1382	G	C5-C6-O6	-7.96	123.82	128.60
5	A	1405	A	P-O3'-C3'	7.96	129.25	119.70
5	A	1609	C	O4'-C1'-N1	7.96	114.57	108.20
5	A	435	G	O4'-C1'-N9	7.96	114.57	108.20
5	A	2847	G	P-O3'-C3'	7.96	129.25	119.70
5	A	734	C	O4'-C1'-N1	7.96	114.56	108.20
5	A	802	G	P-O5'-C5'	7.95	133.62	120.90
5	A	1232	G	C5-C6-O6	-7.95	123.83	128.60
5	A	2569	C	O4'-C1'-N1	7.95	114.56	108.20
5	A	2761	G	P-O3'-C3'	7.95	129.24	119.70
5	A	630	A	C4-C5-C6	7.95	120.98	117.00
6	B	26	C	O4'-C1'-N1	7.95	114.56	108.20
5	A	2838	U	O4'-C1'-N1	7.95	114.56	108.20
5	A	2868	G	N1-C6-O6	7.95	124.67	119.90
5	A	307	A	P-O5'-C5'	7.95	133.61	120.90
5	A	1394	G	C5-C6-O6	-7.95	123.83	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2808	U	O4'-C1'-N1	7.95	114.56	108.20
5	A	1696	G	C5-C6-O6	-7.94	123.83	128.60
5	A	95	A	O4'-C1'-N9	7.94	114.55	108.20
5	A	305	A	C5-C6-N6	-7.94	117.35	123.70
5	A	45	G	O4'-C1'-N9	7.94	114.55	108.20
5	A	1385	G	N1-C6-O6	7.94	124.66	119.90
5	A	433	G	C5-C6-O6	-7.93	123.84	128.60
5	A	2505	A	O4'-C1'-N9	7.93	114.55	108.20
5	A	1585	A	P-O3'-C3'	7.93	129.22	119.70
5	A	1644	C	O4'-C1'-N1	7.93	114.55	108.20
5	A	2748	G	N1-C6-O6	7.93	124.66	119.90
5	A	2322	C	O4'-C1'-N1	7.93	114.54	108.20
5	A	2195	G	N1-C6-O6	7.93	124.66	119.90
5	A	2235	G	O4'-C1'-N9	7.92	114.54	108.20
5	A	2492	C	O4'-C1'-N1	7.92	114.54	108.20
5	A	2550	C	O4'-C1'-N1	7.92	114.54	108.20
5	A	1296	G	N1-C6-O6	7.92	124.65	119.90
5	A	2580	C	O4'-C1'-N1	7.92	114.54	108.20
5	A	1449	C	N3-C4-N4	7.92	123.55	118.00
6	B	88	C	O4'-C1'-N1	7.92	114.54	108.20
5	A	2285	G	C5-C6-O6	-7.92	123.85	128.60
5	A	641	C	O4'-C1'-N1	7.92	114.53	108.20
5	A	1152	G	C5-C6-O6	-7.92	123.85	128.60
5	A	1414	G	C5-C6-O6	-7.92	123.85	128.60
5	A	2246	G	C5-C6-O6	-7.92	123.85	128.60
5	A	165	C	O4'-C1'-N1	7.92	114.53	108.20
5	A	1163	U	O4'-C1'-N1	7.92	114.53	108.20
5	A	2234	C	O4'-C1'-N1	7.92	114.53	108.20
5	A	1268	G	C5-C6-O6	-7.91	123.85	128.60
5	A	2670	A	O4'-C1'-N9	7.91	114.53	108.20
5	A	1497	G	C5-C6-O6	-7.91	123.85	128.60
5	A	2269	C	O4'-C1'-N1	7.91	114.53	108.20
6	B	90	C	O4'-C1'-N1	7.91	114.53	108.20
5	A	2259	G	C5-C6-O6	-7.91	123.86	128.60
5	A	2711	G	N1-C6-O6	7.91	124.64	119.90
5	A	229	A	O4'-C1'-N9	7.91	114.53	108.20
5	A	1716	U	O4'-C1'-N1	7.91	114.53	108.20
5	A	2173	G	N1-C6-O6	7.91	124.64	119.90
5	A	391	A	O4'-C1'-N9	7.91	114.53	108.20
5	A	890	G	O4'-C1'-N9	7.91	114.52	108.20
5	A	1428	G	C5-C6-O6	-7.91	123.86	128.60
5	A	2690	G	N1-C6-O6	7.91	124.64	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	153	C	N3-C4-N4	7.90	123.53	118.00
5	A	543	A	O4'-C1'-N9	7.90	114.52	108.20
5	A	1872	C	O4'-C1'-N1	7.90	114.52	108.20
5	A	884	C	O4'-C1'-N1	7.90	114.52	108.20
5	A	1297	C	O4'-C1'-N1	7.90	114.52	108.20
5	A	1638	A	C5-C6-N1	-7.90	113.75	117.70
5	A	1832	A	O4'-C1'-N9	7.90	114.52	108.20
5	A	1552	C	O4'-C1'-N1	7.90	114.52	108.20
5	A	1558	G	C5-C6-O6	-7.90	123.86	128.60
5	A	2757	U	O4'-C1'-N1	7.90	114.52	108.20
5	A	22	C	O4'-C1'-N1	7.90	114.52	108.20
5	A	1089	C	O4'-C1'-N1	7.89	114.51	108.20
5	A	1525	G	C5-C6-O6	-7.89	123.86	128.60
6	B	14	G	C5-C6-O6	-7.89	123.86	128.60
6	B	100	G	C5-C6-O6	-7.89	123.86	128.60
5	A	1337	C	O4'-C1'-N1	7.89	114.51	108.20
5	A	2107	C	O4'-C1'-N1	7.89	114.51	108.20
5	A	151	U	P-O3'-C3'	7.88	129.16	119.70
5	A	2570	A	O4'-C1'-N9	7.88	114.51	108.20
5	A	361	G	O4'-C1'-N9	7.88	114.50	108.20
5	A	371	G	C5-C6-O6	-7.88	123.87	128.60
5	A	801	U	O4'-C1'-N1	7.88	114.50	108.20
5	A	2263	G	O4'-C1'-N9	7.88	114.50	108.20
5	A	1709	A	C5-C6-N6	-7.88	117.40	123.70
6	B	93	U	O4'-C1'-N1	7.87	114.50	108.20
5	A	1251	U	O4'-C1'-N1	7.87	114.50	108.20
5	A	681	C	O4'-C1'-N1	7.87	114.50	108.20
5	A	1375	A	O4'-C1'-N9	7.87	114.50	108.20
5	A	2135	G	O4'-C1'-N9	7.87	114.50	108.20
5	A	1864	G	N1-C6-O6	7.87	124.62	119.90
5	A	196	U	O4'-C1'-N1	7.87	114.49	108.20
5	A	511	U	O4'-C1'-N1	7.87	114.49	108.20
5	A	1469	G	C5-C6-O6	-7.87	123.88	128.60
5	A	2412	G	C5-C6-O6	-7.87	123.88	128.60
5	A	2784	C	O4'-C1'-N1	7.87	114.49	108.20
5	A	2258	U	O4'-C1'-N1	7.86	114.49	108.20
5	A	2883	C	C2-N1-C1'	7.86	127.45	118.80
5	A	99	U	O4'-C1'-N1	7.86	114.49	108.20
5	A	1009	U	P-O5'-C5'	7.86	133.48	120.90
5	A	1192	G	O4'-C1'-N9	7.86	114.49	108.20
5	A	1771	C	O4'-C1'-N1	7.86	114.49	108.20
5	A	1796	C	O4'-C1'-N1	7.86	114.49	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2644	U	O4'-C1'-N1	7.86	114.49	108.20
5	A	520	G	O4'-C1'-N9	7.86	114.49	108.20
5	A	919	U	O4'-C1'-N1	7.86	114.49	108.20
5	A	685	U	O4'-C1'-N1	7.86	114.49	108.20
5	A	2879	G	C5-C6-O6	-7.86	123.89	128.60
5	A	548	A	C5-C6-N6	-7.86	117.42	123.70
5	A	1256	C	O4'-C1'-N1	7.86	114.48	108.20
5	A	1720	C	O4'-C1'-N1	7.86	114.48	108.20
5	A	1828	G	P-O3'-C3'	7.86	129.13	119.70
5	A	2016	G	C5-C6-O6	-7.86	123.89	128.60
5	A	370	G	O4'-C1'-N9	7.85	114.48	108.20
5	A	2408	G	C5-C6-O6	-7.85	123.89	128.60
5	A	730	U	O4'-C1'-N1	7.84	114.48	108.20
5	A	1361	A	C5-C6-N6	-7.84	117.42	123.70
5	A	2207	C	O4'-C1'-N1	7.84	114.48	108.20
5	A	1274	U	O4'-C1'-N1	7.84	114.47	108.20
5	A	1155	C	O4'-C1'-N1	7.84	114.47	108.20
5	A	2418	G	C5-C6-O6	-7.84	123.89	128.60
5	A	780	G	C5-C6-O6	-7.84	123.90	128.60
5	A	2910	C	O4'-C1'-N1	7.84	114.47	108.20
5	A	707	G	C5-C6-O6	-7.84	123.90	128.60
5	A	1676	G	N1-C6-O6	7.84	124.60	119.90
5	A	526	A	O4'-C1'-N9	7.84	114.47	108.20
5	A	1353	C	C6-N1-C2	-7.84	117.17	120.30
5	A	985	G	O4'-C1'-N9	7.83	114.47	108.20
5	A	1415	C	O4'-C1'-N1	7.83	114.47	108.20
5	A	2562	U	P-O5'-C5'	7.83	133.44	120.90
5	A	153	C	N3-C4-C5	-7.83	118.77	121.90
5	A	392	C	O4'-C1'-N1	7.83	114.47	108.20
5	A	695	G	C5-C6-O6	-7.83	123.90	128.60
5	A	368	G	N1-C6-O6	7.83	124.60	119.90
5	A	836	A	P-O3'-C3'	7.83	129.10	119.70
5	A	2815	U	O4'-C1'-N1	7.83	114.47	108.20
5	A	107	G	O4'-C1'-N9	7.83	114.46	108.20
5	A	521	G	C5-C6-O6	-7.83	123.90	128.60
5	A	709	G	O4'-C1'-N9	7.83	114.46	108.20
5	A	2297	A	C4-C5-C6	7.82	120.91	117.00
5	A	961	C	O4'-C1'-N1	7.82	114.45	108.20
5	A	1043	G	O4'-C1'-N9	7.82	114.45	108.20
5	A	2442	G	N1-C6-O6	7.82	124.59	119.90
5	A	1321	U	O4'-C1'-N1	7.81	114.45	108.20
5	A	132	C	O4'-C1'-N1	7.81	114.45	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	246	U	O4'-C1'-N1	7.81	114.45	108.20
5	A	1546	G	C5-C6-O6	-7.81	123.91	128.60
5	A	127	C	O4'-C1'-N1	7.81	114.45	108.20
5	A	398	U	O4'-C1'-N1	7.81	114.45	108.20
5	A	855	G	N1-C6-O6	7.81	124.58	119.90
5	A	2125	U	O4'-C1'-N1	7.81	114.44	108.20
5	A	2415	U	O4'-C1'-N1	7.81	114.44	108.20
5	A	663	G	C5-C6-O6	-7.80	123.92	128.60
5	A	1363	G	C5-C6-O6	-7.80	123.92	128.60
5	A	1844	A	N1-C6-N6	7.80	123.28	118.60
5	A	608	C	O4'-C1'-N1	7.80	114.44	108.20
5	A	1328	C	O4'-C1'-N1	7.80	114.44	108.20
5	A	1531	G	C5-C6-O6	-7.80	123.92	128.60
5	A	1406	A	O4'-C1'-N9	7.79	114.44	108.20
5	A	186	C	O4'-C1'-N1	7.79	114.44	108.20
5	A	549	A	C5-C6-N6	-7.79	117.47	123.70
5	A	1495	C	O4'-C1'-N1	7.79	114.44	108.20
5	A	2309	G	C5-C6-O6	-7.79	123.92	128.60
5	A	238	U	O4'-C1'-N1	7.79	114.43	108.20
5	A	2687	C	O4'-C1'-N1	7.79	114.43	108.20
5	A	75	G	C5-C6-O6	-7.79	123.93	128.60
5	A	771	U	P-O5'-C5'	7.79	133.36	120.90
5	A	1051	C	N3-C4-C5	-7.78	118.79	121.90
5	A	1189	A	O4'-C1'-N9	7.78	114.43	108.20
5	A	1610	U	O4'-C1'-N1	7.78	114.43	108.20
5	A	1678	G	O4'-C1'-N9	7.78	114.43	108.20
5	A	338	G	C5-C6-O6	-7.78	123.93	128.60
5	A	931	C	O4'-C1'-N1	7.78	114.42	108.20
5	A	1237	C	O4'-C1'-N1	7.78	114.43	108.20
5	A	1320	G	C5-C6-O6	-7.78	123.93	128.60
6	B	83	G	C5-C6-O6	-7.78	123.93	128.60
5	A	1646	G	O4'-C1'-N9	7.78	114.42	108.20
5	A	1971	C	O4'-C1'-N1	7.78	114.42	108.20
5	A	2681	U	O4'-C1'-N1	7.78	114.42	108.20
5	A	1462	G	N1-C6-O6	7.78	124.57	119.90
5	A	2293	C	O4'-C1'-N1	7.78	114.42	108.20
5	A	1200	G	C5-C6-O6	-7.77	123.94	128.60
5	A	1992	C	C2-N1-C1'	7.77	127.35	118.80
5	A	2214	G	C5-C6-O6	-7.77	123.94	128.60
5	A	2424	C	O4'-C1'-N1	7.77	114.42	108.20
5	A	2751	G	C5-C6-O6	-7.77	123.94	128.60
5	A	151	U	O4'-C1'-N1	7.77	114.42	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	88	G	N1-C6-O6	7.77	124.56	119.90
5	A	2567	C	O4'-C1'-N1	7.77	114.42	108.20
5	A	79	C	O4'-C1'-N1	7.77	114.41	108.20
5	A	274	A	O4'-C1'-N9	7.77	114.41	108.20
5	A	283	G	C5-C6-O6	-7.76	123.94	128.60
5	A	1032	C	O4'-C1'-N1	7.76	114.41	108.20
5	A	2894	G	C5-C6-O6	-7.76	123.94	128.60
5	A	864	C	O4'-C1'-N1	7.76	114.41	108.20
5	A	885	C	O4'-C1'-N1	7.76	114.41	108.20
5	A	516	G	O4'-C1'-N9	7.76	114.41	108.20
5	A	2271	G	O4'-C1'-N9	7.76	114.41	108.20
5	A	461	C	O4'-C1'-N1	7.76	114.41	108.20
5	A	762	A	O4'-C1'-N9	7.75	114.40	108.20
5	A	2509	C	N3-C4-N4	7.75	123.43	118.00
5	A	963	G	O4'-C1'-N9	7.75	114.40	108.20
5	A	959	C	N3-C4-C5	-7.75	118.80	121.90
5	A	2731	G	O4'-C1'-N9	7.75	114.40	108.20
5	A	467	C	O4'-C1'-N1	7.75	114.40	108.20
5	A	627	G	C5-C6-O6	-7.74	123.95	128.60
5	A	415	C	O4'-C1'-N1	7.74	114.39	108.20
5	A	968	C	O4'-C1'-N1	7.74	114.39	108.20
5	A	1753	C	O4'-C1'-N1	7.74	114.39	108.20
6	B	22	G	N3-C2-N2	7.74	125.32	119.90
5	A	1312	A	O4'-C1'-N9	7.74	114.39	108.20
5	A	1797	A	O4'-C1'-N9	7.74	114.39	108.20
5	A	197	G	C5-C6-O6	-7.74	123.96	128.60
5	A	2789	C	O4'-C1'-N1	7.74	114.39	108.20
5	A	123	G	O4'-C1'-N9	7.73	114.39	108.20
5	A	601	U	O4'-C1'-N1	7.73	114.38	108.20
5	A	2483	G	C5-C6-O6	-7.73	123.96	128.60
5	A	2082	G	N1-C6-O6	7.73	124.54	119.90
5	A	2692	G	C5-C6-O6	-7.73	123.97	128.60
5	A	49	A	C4-C5-C6	7.72	120.86	117.00
5	A	509	C	O4'-C1'-N1	7.72	114.38	108.20
5	A	1312	A	P-O5'-C5'	7.72	133.25	120.90
5	A	744	C	O4'-C1'-N1	7.72	114.38	108.20
5	A	1672	A	C5-C6-N6	-7.72	117.52	123.70
5	A	2163	A	O4'-C1'-N9	7.72	114.38	108.20
5	A	2355	U	O4'-C1'-N1	7.72	114.38	108.20
5	A	2739	C	O4'-C1'-N1	7.72	114.38	108.20
5	A	1924	C	O4'-C1'-N1	7.72	114.37	108.20
5	A	1238	G	C5-C6-O6	-7.71	123.97	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2484	G	C5-C6-O6	-7.71	123.97	128.60
5	A	2799	C	O4'-C1'-N1	7.71	114.37	108.20
5	A	1591	G	N1-C6-O6	7.71	124.53	119.90
5	A	1871	G	O4'-C1'-N9	7.71	114.37	108.20
5	A	1299	G	C5-C6-O6	-7.71	123.97	128.60
5	A	2184	U	O4'-C1'-N1	7.71	114.37	108.20
5	A	1135	G	N1-C6-O6	7.71	124.53	119.90
5	A	1824	C	O4'-C1'-N1	7.71	114.37	108.20
5	A	2271	G	C5-C6-O6	-7.71	123.97	128.60
5	A	2489	U	O4'-C1'-N1	7.71	114.36	108.20
5	A	2288	G	C5-C6-O6	-7.70	123.98	128.60
5	A	2291	U	O4'-C1'-N1	7.70	114.36	108.20
5	A	2608	C	P-O5'-C5'	7.70	133.22	120.90
5	A	423	G	C5-C6-O6	-7.70	123.98	128.60
5	A	1492	G	C5-C6-O6	-7.70	123.98	128.60
5	A	2870	G	C5-C6-O6	-7.70	123.98	128.60
5	A	371	G	O4'-C1'-N9	7.70	114.36	108.20
5	A	1952	U	O4'-C1'-N1	7.70	114.36	108.20
5	A	2585	C	O4'-C1'-N1	7.70	114.36	108.20
5	A	323	C	O4'-C1'-N1	7.69	114.35	108.20
5	A	2824	G	P-O3'-C3'	7.69	128.93	119.70
5	A	879	G	C5-C6-O6	-7.69	123.99	128.60
5	A	2229	C	O4'-C1'-N1	7.69	114.35	108.20
6	B	71	A	C4-C5-C6	7.69	120.84	117.00
5	A	2559	U	P-O3'-C3'	7.69	128.93	119.70
5	A	1828	G	C2'-C3'-O3'	7.69	126.41	109.50
5	A	1859	C	N3-C4-N4	7.69	123.38	118.00
5	A	1635	G	C5-C6-O6	-7.69	123.99	128.60
5	A	235	G	N3-C2-N2	7.68	125.28	119.90
5	A	462	A	C5-C6-N6	-7.68	117.56	123.70
5	A	1958	G	O4'-C1'-N9	7.68	114.35	108.20
5	A	104	C	O4'-C1'-N1	7.68	114.34	108.20
5	A	8	U	O4'-C1'-N1	7.68	114.34	108.20
5	A	1823	U	O4'-C1'-N1	7.68	114.34	108.20
5	A	530	A	O4'-C1'-N9	7.67	114.34	108.20
5	A	2746	G	C5-C6-O6	-7.67	124.00	128.60
5	A	1272	G	C5-C6-O6	-7.67	124.00	128.60
5	A	1281	C	C2-N1-C1'	7.67	127.24	118.80
5	A	1847	U	O4'-C1'-N1	7.67	114.34	108.20
5	A	2776	G	N1-C6-O6	7.67	124.50	119.90
5	A	32	C	O4'-C1'-N1	7.67	114.33	108.20
5	A	172	U	O4'-C1'-N1	7.66	114.33	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1646	G	C5-C6-O6	-7.66	124.00	128.60
5	A	1734	A	O4'-C1'-N9	7.66	114.33	108.20
5	A	78	U	O4'-C1'-N1	7.66	114.33	108.20
5	A	777	C	O4'-C1'-N1	7.66	114.33	108.20
5	A	1222	A	O4'-C1'-N9	7.66	114.33	108.20
5	A	1560	U	O4'-C1'-N1	7.66	114.33	108.20
5	A	2612	G	N1-C6-O6	7.66	124.50	119.90
5	A	504	A	N1-C6-N6	7.66	123.19	118.60
5	A	1993	G	C5-C6-O6	-7.66	124.01	128.60
5	A	1620	A	O4'-C1'-N9	7.66	114.33	108.20
5	A	2292	C	O4'-C1'-N1	7.66	114.32	108.20
5	A	2822	C	O4'-C1'-N1	7.66	114.32	108.20
5	A	2515	G	C5-C6-O6	-7.65	124.01	128.60
5	A	367	G	O4'-C1'-N9	7.65	114.32	108.20
5	A	2829	G	C5-C6-O6	-7.65	124.01	128.60
5	A	314	A	O4'-C1'-N9	7.65	114.32	108.20
5	A	2055	U	O4'-C1'-N1	7.65	114.32	108.20
5	A	2872	U	O4'-C1'-N1	7.65	114.32	108.20
5	A	1927	U	O4'-C1'-N1	7.65	114.32	108.20
5	A	2394	G	O4'-C1'-N9	7.65	114.32	108.20
5	A	2099	G	C5-C6-O6	-7.64	124.01	128.60
5	A	2138	U	O4'-C1'-N1	7.64	114.32	108.20
5	A	16	G	C5-C6-O6	-7.64	124.02	128.60
5	A	81	G	C5-C6-O6	-7.64	124.01	128.60
5	A	2259	G	O4'-C1'-N9	7.64	114.31	108.20
5	A	768	G	P-O5'-C5'	7.64	133.12	120.90
5	A	1166	G	C5-C6-O6	-7.64	124.02	128.60
5	A	1170	C	P-O5'-C5'	7.64	133.12	120.90
6	B	110	G	O4'-C1'-N9	7.64	114.31	108.20
5	A	2051	U	C5'-C4'-O4'	7.63	118.26	109.10
5	A	53	A	O4'-C1'-N9	7.63	114.31	108.20
5	A	2891	G	O4'-C1'-N9	7.63	114.31	108.20
5	A	675	C	O4'-C1'-N1	7.63	114.31	108.20
6	B	3	U	O4'-C1'-N1	7.63	114.31	108.20
5	A	1839	A	C4-C5-C6	7.63	120.81	117.00
6	B	49	G	C5-C6-O6	-7.63	124.02	128.60
5	A	1688	G	C5-C6-O6	-7.62	124.03	128.60
5	A	443	G	C5-C6-O6	-7.62	124.03	128.60
5	A	988	G	C5-C6-O6	-7.62	124.03	128.60
5	A	2657	C	C2-N1-C1'	7.62	127.18	118.80
5	A	807	G	P-O5'-C5'	7.62	133.09	120.90
5	A	1937	C	O4'-C1'-N1	7.62	114.30	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2057	U	O4'-C1'-N1	7.62	114.30	108.20
5	A	49	A	P-O3'-C3'	7.62	128.84	119.70
5	A	234	C	O4'-C1'-N1	7.62	114.29	108.20
5	A	1529	G	C5-C6-O6	-7.62	124.03	128.60
5	A	2056	G	C5-C6-O6	-7.62	124.03	128.60
5	A	2314	C	O4'-C1'-N1	7.61	114.29	108.20
5	A	2319	G	C5-C6-O6	-7.61	124.03	128.60
5	A	505	G	N1-C6-O6	7.61	124.47	119.90
5	A	370	G	C5-C6-O6	-7.61	124.03	128.60
5	A	575	A	O4'-C1'-N9	7.61	114.29	108.20
5	A	2565	G	C5-C6-O6	-7.61	124.03	128.60
5	A	2382	G	C5-C6-O6	-7.61	124.03	128.60
5	A	2791	U	O4'-C1'-N1	7.61	114.29	108.20
5	A	559	A	C5-C6-N1	-7.61	113.90	117.70
5	A	1708	U	O4'-C1'-N1	7.61	114.29	108.20
5	A	2591	U	O4'-C1'-N1	7.61	114.29	108.20
5	A	19	G	O4'-C1'-N9	7.61	114.28	108.20
5	A	123	G	C5-C6-O6	-7.61	124.04	128.60
5	A	1394	G	O4'-C1'-N9	7.61	114.28	108.20
5	A	347	G	C5-C6-O6	-7.60	124.04	128.60
5	A	1145	G	C5-C6-O6	-7.60	124.04	128.60
5	A	1485	A	C4-C5-C6	7.60	120.80	117.00
5	A	488	U	O4'-C1'-N1	7.60	114.28	108.20
5	A	489	G	C5-C6-O6	-7.60	124.04	128.60
5	A	814	U	O4'-C1'-N1	7.60	114.28	108.20
5	A	2523	G	C5-C6-O6	-7.60	124.04	128.60
5	A	805	G	C5-C6-O6	-7.60	124.04	128.60
5	A	923	C	O4'-C1'-N1	7.60	114.28	108.20
5	A	1785	G	C5-C6-O6	-7.60	124.04	128.60
5	A	1782	G	O4'-C1'-N9	7.59	114.28	108.20
5	A	2134	A	O4'-C1'-N9	7.59	114.28	108.20
5	A	765	A	C4-C5-C6	7.59	120.80	117.00
5	A	1299	G	O4'-C1'-N9	7.59	114.27	108.20
5	A	2103	U	O4'-C1'-N1	7.59	114.27	108.20
5	A	181	G	C5-C6-O6	-7.59	124.05	128.60
5	A	950	U	O4'-C1'-N1	7.59	114.27	108.20
5	A	1616	G	C5-C6-O6	-7.59	124.05	128.60
5	A	2153	G	C5-C6-O6	-7.59	124.05	128.60
5	A	249	C	O4'-C1'-N1	7.58	114.27	108.20
5	A	568	G	C5-C6-O6	-7.58	124.05	128.60
5	A	2320	U	O4'-C1'-N1	7.58	114.27	108.20
5	A	2610	G	O4'-C1'-N9	7.58	114.27	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	277	C	O4'-C1'-N1	7.58	114.26	108.20
5	A	680	G	C5-C6-O6	-7.58	124.05	128.60
5	A	77	U	O4'-C1'-N1	7.58	114.26	108.20
5	A	2122	G	O4'-C1'-N9	7.58	114.26	108.20
5	A	7	G	C5-C6-O6	-7.57	124.06	128.60
5	A	2244	G	C5-C6-O6	-7.57	124.06	128.60
5	A	2471	C	O4'-C1'-N1	7.57	114.26	108.20
5	A	654	G	C5-C6-O6	-7.57	124.06	128.60
5	A	350	U	O4'-C1'-N1	7.57	114.25	108.20
5	A	98	U	O4'-C1'-N1	7.57	114.25	108.20
5	A	2473	G	C5-C6-O6	-7.57	124.06	128.60
5	A	1725	U	O4'-C1'-N1	7.56	114.25	108.20
6	B	74	G	C5-C6-O6	-7.56	124.06	128.60
5	A	1798	G	C5-C6-O6	-7.56	124.06	128.60
5	A	1837	U	O4'-C1'-N1	7.56	114.25	108.20
5	A	177	G	O4'-C1'-N9	7.56	114.25	108.20
5	A	668	G	C5-C6-O6	-7.56	124.07	128.60
5	A	1048	G	C5-C6-O6	-7.56	124.06	128.60
5	A	2592	U	O4'-C1'-N1	7.56	114.25	108.20
5	A	2646	C	O4'-C1'-N1	7.56	114.25	108.20
5	A	566	G	C5-C6-O6	-7.56	124.07	128.60
5	A	2110	C	O4'-C1'-N1	7.56	114.25	108.20
5	A	1697	A	O4'-C1'-N9	7.55	114.24	108.20
5	A	2540	U	O4'-C1'-N1	7.55	114.24	108.20
5	A	18	C	O4'-C1'-N1	7.55	114.24	108.20
5	A	535	G	O4'-C1'-N9	7.55	114.24	108.20
5	A	628	C	O4'-C1'-N1	7.55	114.24	108.20
5	A	862	U	O4'-C1'-N1	7.55	114.24	108.20
5	A	1355	U	O4'-C1'-N1	7.54	114.24	108.20
5	A	1866	C	O4'-C1'-N1	7.54	114.24	108.20
5	A	522	U	O4'-C1'-N1	7.54	114.23	108.20
5	A	2277	C	O4'-C1'-N1	7.54	114.23	108.20
5	A	2678	U	O4'-C1'-N1	7.54	114.23	108.20
5	A	163	U	O4'-C1'-N1	7.54	114.23	108.20
5	A	1869	G	C5-C6-O6	-7.54	124.08	128.60
5	A	348	U	O4'-C1'-N1	7.54	114.23	108.20
5	A	1001	U	O4'-C1'-N1	7.54	114.23	108.20
5	A	471	G	C5-C6-O6	-7.54	124.08	128.60
5	A	536	G	C5-C6-O6	-7.54	124.08	128.60
5	A	1391	U	O4'-C1'-N1	7.54	114.23	108.20
5	A	1592	A	O4'-C1'-N9	7.53	114.23	108.20
5	A	863	C	O4'-C1'-N1	7.53	114.23	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	544	G	O4'-C1'-N9	7.53	114.22	108.20
5	A	711	U	O4'-C1'-N1	7.53	114.22	108.20
5	A	673	A	P-O3'-C3'	7.53	128.73	119.70
5	A	1197	A	O4'-C1'-N9	7.53	114.22	108.20
5	A	1367	G	C5-C6-O6	-7.53	124.08	128.60
5	A	2759	C	O4'-C1'-N1	7.53	114.22	108.20
5	A	1322	G	O4'-C1'-N9	7.53	114.22	108.20
5	A	1775	G	C5-C6-O6	-7.53	124.08	128.60
5	A	2864	G	C5-C6-O6	-7.53	124.08	128.60
5	A	1584	U	O4'-C1'-N1	7.52	114.22	108.20
5	A	2719	A	C4-C5-C6	7.52	120.76	117.00
5	A	1612	C	O4'-C1'-N1	7.52	114.22	108.20
5	A	1937	C	P-O3'-C3'	7.52	128.72	119.70
5	A	830	A	C4-C5-C6	7.52	120.76	117.00
5	A	1108	G	N1-C6-O6	7.52	124.41	119.90
5	A	2070	U	O4'-C1'-N1	7.52	114.21	108.20
5	A	1118	C	O4'-C1'-N1	7.52	114.21	108.20
5	A	217	G	C5-C6-O6	-7.51	124.09	128.60
5	A	320	U	O4'-C1'-N1	7.51	114.21	108.20
5	A	2219	G	C5-C6-O6	-7.51	124.09	128.60
5	A	2369	A	O4'-C1'-N9	7.51	114.21	108.20
5	A	2469	C	O4'-C1'-N1	7.51	114.21	108.20
5	A	2621	G	O4'-C1'-N9	7.51	114.21	108.20
5	A	2058	G	C5-C6-O6	-7.51	124.09	128.60
5	A	1269	A	O4'-C1'-N9	7.51	114.21	108.20
5	A	1662	C	O4'-C1'-N1	7.51	114.21	108.20
5	A	2123	A	C5-C6-N6	-7.51	117.69	123.70
5	A	327	G	C5-C6-O6	-7.51	124.10	128.60
5	A	1449	C	N3-C4-C5	-7.51	118.90	121.90
5	A	128	C	O4'-C1'-N1	7.50	114.20	108.20
5	A	731	G	C5-C6-O6	-7.50	124.10	128.60
5	A	2685	U	O4'-C1'-N1	7.50	114.20	108.20
5	A	945	C	O4'-C1'-N1	7.50	114.20	108.20
5	A	1762	G	C5-C6-O6	-7.50	124.10	128.60
5	A	2818	C	O4'-C1'-N1	7.50	114.20	108.20
5	A	236	A	O4'-C1'-N9	7.50	114.20	108.20
5	A	2068	G	C5-C6-O6	-7.50	124.10	128.60
5	A	944	C	N3-C4-N4	7.50	123.25	118.00
5	A	737	C	O4'-C1'-N1	7.50	114.20	108.20
5	A	2917	G	O4'-C1'-N9	7.50	114.20	108.20
5	A	788	G	C5-C6-O6	-7.50	124.10	128.60
5	A	1934	C	O4'-C1'-N1	7.50	114.20	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	66	C	P-O5'-C5'	7.50	132.89	120.90
5	A	2717	G	O4'-C1'-N9	7.50	114.20	108.20
5	A	2773	G	O4'-C1'-N9	7.50	114.20	108.20
5	A	1501	U	O4'-C1'-N1	7.49	114.19	108.20
5	A	1566	G	C5'-C4'-C3'	-7.49	104.01	116.00
5	A	2056	G	O4'-C1'-N9	7.49	114.19	108.20
5	A	2161	G	C5-C6-O6	-7.49	124.10	128.60
5	A	1182	G	C5-C6-O6	-7.49	124.11	128.60
5	A	2004	G	C5-C6-O6	-7.49	124.11	128.60
5	A	474	U	O4'-C1'-N1	7.49	114.19	108.20
5	A	1401	C	O4'-C1'-N1	7.49	114.19	108.20
5	A	2925	C	O4'-C1'-N1	7.49	114.19	108.20
5	A	975	C	O4'-C1'-N1	7.49	114.19	108.20
5	A	2602	C	O4'-C1'-N1	7.49	114.19	108.20
5	A	381	U	O4'-C1'-N1	7.48	114.19	108.20
5	A	1826	C	O4'-C1'-N1	7.48	114.19	108.20
5	A	705	A	C5-C6-N6	-7.48	117.71	123.70
5	A	1860	G	C5-C6-O6	-7.48	124.11	128.60
5	A	2434	G	C5-C6-O6	-7.48	124.11	128.60
5	A	323	C	P-O3'-C3'	7.48	128.67	119.70
5	A	1365	U	O4'-C1'-N1	7.48	114.18	108.20
5	A	1178	U	C2-N1-C1'	7.48	126.67	117.70
5	A	2587	C	O4'-C1'-N1	7.48	114.18	108.20
5	A	232	U	O4'-C1'-N1	7.47	114.18	108.20
5	A	1132	A	O4'-C1'-N9	7.47	114.18	108.20
5	A	1507	U	O4'-C1'-N1	7.47	114.18	108.20
5	A	385	G	O4'-C1'-N9	7.47	114.18	108.20
5	A	529	C	O4'-C1'-N1	7.47	114.18	108.20
5	A	2577	G	C5-C6-O6	-7.47	124.12	128.60
5	A	346	G	P-O3'-C3'	7.47	128.66	119.70
5	A	1508	C	N3-C4-N4	7.47	123.23	118.00
5	A	567	U	O4'-C1'-N1	7.47	114.17	108.20
5	A	1332	U	O4'-C1'-N1	7.47	114.17	108.20
5	A	572	A	C5-C6-N6	-7.47	117.73	123.70
5	A	1460	G	O4'-C1'-N9	7.47	114.17	108.20
5	A	558	G	O4'-C1'-N9	7.46	114.17	108.20
5	A	1687	G	O4'-C1'-N9	7.46	114.17	108.20
6	B	110	G	C5-C6-O6	-7.46	124.12	128.60
5	A	1623	C	O4'-C1'-N1	7.46	114.16	108.20
5	A	109	G	C5-C6-O6	-7.45	124.13	128.60
5	A	704	U	O4'-C1'-N1	7.45	114.16	108.20
5	A	1267	G	O4'-C1'-N9	7.45	114.16	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2054	C	O4'-C1'-N1	7.45	114.16	108.20
5	A	633	U	O4'-C1'-N1	7.45	114.16	108.20
5	A	1060	U	O4'-C1'-N1	7.45	114.16	108.20
5	A	1162	C	O4'-C1'-N1	7.45	114.16	108.20
5	A	1317	G	C5-C6-O6	-7.45	124.13	128.60
5	A	1169	C	O4'-C1'-N1	7.45	114.16	108.20
5	A	1596	U	O4'-C1'-N1	7.45	114.16	108.20
5	A	2747	G	C5-C6-O6	-7.45	124.13	128.60
5	A	538	A	C4-C5-C6	7.44	120.72	117.00
5	A	142	G	C5-C6-O6	-7.44	124.13	128.60
5	A	570	C	O4'-C1'-N1	7.44	114.15	108.20
5	A	2671	G	C5-C6-O6	-7.44	124.13	128.60
5	A	752	A	C4-C5-C6	7.44	120.72	117.00
5	A	772	G	P-O5'-C5'	7.44	132.80	120.90
5	A	1660	C	O4'-C1'-N1	7.44	114.15	108.20
5	A	1701	C	O4'-C1'-N1	7.44	114.15	108.20
6	B	8	G	O4'-C1'-N9	7.44	114.15	108.20
5	A	1721	A	C5-C6-N6	-7.44	117.75	123.70
5	A	1805	G	C5-C6-O6	-7.44	124.14	128.60
5	A	2169	G	O4'-C1'-N9	7.44	114.15	108.20
5	A	52	A	C4-C5-C6	7.44	120.72	117.00
5	A	1494	G	C5-C6-O6	-7.44	124.14	128.60
5	A	1730	C	O4'-C1'-N1	7.44	114.15	108.20
5	A	2341	U	O4'-C1'-N1	7.44	114.15	108.20
5	A	788	G	O4'-C1'-N9	7.43	114.15	108.20
5	A	2501	G	C5-C6-O6	-7.43	124.14	128.60
5	A	2648	U	O4'-C1'-N1	7.43	114.15	108.20
5	A	527	A	O4'-C1'-N9	7.43	114.14	108.20
5	A	1363	G	O4'-C1'-N9	7.43	114.14	108.20
5	A	2616	A	O4'-C1'-N9	7.43	114.14	108.20
5	A	1620	A	C5-C6-N6	-7.42	117.76	123.70
5	A	2028	C	N3-C4-N4	7.42	123.20	118.00
5	A	19	G	C5-C6-O6	-7.42	124.15	128.60
5	A	1006	A	C4-C5-C6	7.42	120.71	117.00
5	A	2883	C	O4'-C1'-N1	7.42	114.13	108.20
5	A	573	C	O4'-C1'-N1	7.41	114.13	108.20
5	A	887	C	O4'-C1'-N1	7.41	114.13	108.20
5	A	2446	C	O4'-C1'-N1	7.41	114.13	108.20
5	A	837	U	O4'-C1'-N1	7.41	114.13	108.20
5	A	2239	U	O4'-C1'-N1	7.41	114.13	108.20
5	A	823	G	C5-C6-O6	-7.41	124.16	128.60
5	A	1710	A	O4'-C1'-N9	7.41	114.12	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	267	U	O4'-C1'-N1	7.40	114.12	108.20
5	A	1799	G	C5-C6-O6	-7.40	124.16	128.60
5	A	1087	U	O4'-C1'-N1	7.40	114.12	108.20
5	A	645	C	N3-C4-N4	7.40	123.18	118.00
5	A	2546	C	O4'-C1'-N1	7.40	114.12	108.20
17	P	74	PHE	CB-CG-CD1	7.40	125.98	120.80
5	A	2038	G	O4'-C1'-N9	7.39	114.11	108.20
5	A	2539	C	O4'-C1'-N1	7.39	114.12	108.20
5	A	838	C	O4'-C1'-N1	7.39	114.11	108.20
5	A	2069	U	O4'-C1'-N1	7.39	114.11	108.20
5	A	2528	C	O4'-C1'-N1	7.39	114.11	108.20
6	B	50	A	O4'-C1'-N9	7.39	114.11	108.20
5	A	953	G	C5-C6-O6	-7.39	124.17	128.60
5	A	1245	G	C5-C6-O6	-7.39	124.17	128.60
5	A	2388	C	P-O5'-C5'	7.39	132.72	120.90
6	B	43	A	O4'-C1'-N9	7.39	114.11	108.20
5	A	66	C	O4'-C1'-N1	7.38	114.11	108.20
5	A	2249	G	O4'-C1'-N9	7.38	114.11	108.20
5	A	444	U	O4'-C1'-N1	7.38	114.11	108.20
5	A	976	U	C2-N1-C1'	7.38	126.56	117.70
6	B	84	G	O4'-C1'-N9	7.38	114.10	108.20
5	A	217	G	O4'-C1'-N9	7.38	114.10	108.20
5	A	2761	G	O4'-C1'-N9	7.38	114.10	108.20
5	A	1688	G	O4'-C1'-N9	7.38	114.10	108.20
5	A	2388	C	N3-C4-N4	7.38	123.16	118.00
6	B	42	G	C5-C6-O6	-7.38	124.17	128.60
5	A	1566	G	O4'-C1'-N9	7.38	114.10	108.20
5	A	2725	U	O4'-C1'-N1	7.38	114.10	108.20
5	A	729	G	O4'-C1'-N9	7.37	114.10	108.20
5	A	1409	C	O4'-C1'-N1	7.37	114.10	108.20
5	A	2149	G	C5-C6-O6	-7.37	124.18	128.60
5	A	2865	U	O4'-C1'-N1	7.37	114.10	108.20
5	A	2379	C	O4'-C1'-N1	7.37	114.10	108.20
5	A	1816	A	C4-C5-C6	7.37	120.69	117.00
5	A	2053	C	O4'-C1'-N1	7.37	114.10	108.20
5	A	635	C	O4'-C1'-N1	7.37	114.09	108.20
5	A	2896	U	O4'-C1'-N1	7.37	114.09	108.20
5	A	145	G	O4'-C1'-N9	7.36	114.09	108.20
5	A	2182	G	C5-C6-O6	-7.36	124.18	128.60
5	A	44	A	O4'-C1'-N9	7.36	114.09	108.20
5	A	103	U	O4'-C1'-N1	7.36	114.09	108.20
5	A	113	U	O4'-C1'-N1	7.36	114.09	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	379	C	O4'-C1'-N1	7.36	114.09	108.20
5	A	817	G	C5-C6-O6	-7.36	124.18	128.60
5	A	2024	U	O4'-C1'-N1	7.36	114.09	108.20
5	A	2605	G	C5-C6-O6	-7.36	124.18	128.60
5	A	2834	A	O4'-C1'-N9	7.36	114.09	108.20
5	A	1478	G	C5-C6-O6	-7.36	124.19	128.60
5	A	2301	U	O4'-C1'-N1	7.36	114.09	108.20
5	A	2633	U	O4'-C1'-N1	7.36	114.09	108.20
5	A	2254	A	C4-C5-C6	7.36	120.68	117.00
5	A	2502	U	O4'-C1'-N1	7.36	114.08	108.20
5	A	150	A	C5-C6-N6	-7.35	117.82	123.70
5	A	447	G	C5-C6-O6	-7.35	124.19	128.60
5	A	1015	G	O4'-C1'-N9	7.35	114.08	108.20
5	A	1219	C	C6-N1-C1'	-7.35	111.98	120.80
5	A	1615	A	O4'-C1'-N9	7.35	114.08	108.20
5	A	584	A	C5-C6-N1	-7.34	114.03	117.70
5	A	813	G	C5-C6-O6	-7.34	124.19	128.60
5	A	1435	U	O4'-C1'-N1	7.34	114.08	108.20
5	A	2004	G	O4'-C1'-N9	7.34	114.08	108.20
5	A	2561	G	O4'-C1'-N9	7.34	114.08	108.20
5	A	1723	A	O4'-C1'-N9	7.34	114.07	108.20
5	A	198	A	C5-C6-N6	-7.34	117.83	123.70
5	A	1077	G	C5-C6-O6	-7.34	124.20	128.60
5	A	789	C	O4'-C1'-N1	7.34	114.07	108.20
5	A	264	G	O4'-C1'-N9	7.33	114.07	108.20
5	A	1486	G	C5-C6-O6	-7.33	124.20	128.60
5	A	986	G	P-O5'-C5'	7.33	132.63	120.90
5	A	1553	A	O4'-C1'-N9	7.33	114.07	108.20
5	A	1939	G	O4'-C1'-N9	7.33	114.07	108.20
5	A	2672	G	C5-C6-O6	-7.33	124.20	128.60
6	B	61	U	O4'-C1'-N1	7.33	114.07	108.20
5	A	2477	A	O4'-C1'-N9	7.33	114.06	108.20
5	A	2524	G	C5-C6-O6	-7.33	124.20	128.60
5	A	653	A	O4'-C1'-N9	7.33	114.06	108.20
5	A	2343	A	O4'-C1'-N9	7.33	114.06	108.20
5	A	745	C	O4'-C1'-N1	7.33	114.06	108.20
5	A	1779	G	C5-C6-O6	-7.33	124.20	128.60
5	A	1362	G	C5-C6-O6	-7.33	124.20	128.60
5	A	451	C	N3-C4-N4	7.32	123.13	118.00
5	A	573	C	C6-N1-C2	-7.32	117.37	120.30
5	A	895	G	N1-C6-O6	7.32	124.29	119.90
5	A	1039	G	C5-C6-O6	-7.32	124.20	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2800	C	O4'-C1'-N1	7.32	114.06	108.20
6	B	89	C	O4'-C1'-N1	7.32	114.06	108.20
5	A	546	G	O4'-C1'-N9	7.32	114.06	108.20
5	A	909	G	C5-C6-O6	-7.32	124.21	128.60
5	A	2774	C	O4'-C1'-N1	7.32	114.05	108.20
5	A	1095	C	O4'-C1'-N1	7.32	114.05	108.20
5	A	1940	U	P-O3'-C3'	7.31	128.48	119.70
5	A	490	A	O4'-C1'-N9	7.31	114.05	108.20
5	A	653	A	C4-C5-C6	7.31	120.66	117.00
5	A	860	U	O4'-C1'-N1	7.31	114.05	108.20
5	A	1673	G	C5-C6-O6	-7.31	124.21	128.60
5	A	2709	C	O4'-C1'-N1	7.31	114.05	108.20
5	A	2732	C	C6-N1-C1'	-7.31	112.03	120.80
5	A	2780	G	C5-C6-O6	-7.31	124.21	128.60
5	A	136	C	O4'-C1'-N1	7.31	114.05	108.20
5	A	1225	G	C5-C6-O6	-7.31	124.21	128.60
5	A	2888	C	O4'-C1'-N1	7.31	114.05	108.20
5	A	1308	A	O4'-C1'-N9	7.31	114.05	108.20
5	A	1978	G	O4'-C1'-N9	7.31	114.05	108.20
5	A	223	G	O4'-C1'-N9	7.31	114.05	108.20
5	A	1463	C	N3-C4-N4	7.31	123.11	118.00
5	A	2906	U	O4'-C1'-N1	7.31	114.05	108.20
5	A	1083	G	C5-C6-O6	-7.31	124.22	128.60
5	A	1787	G	O4'-C1'-N9	7.31	114.05	108.20
5	A	204	C	O4'-C1'-N1	7.30	114.04	108.20
5	A	1170	C	O4'-C1'-N1	7.30	114.04	108.20
5	A	2222	C	O4'-C1'-N1	7.30	114.04	108.20
5	A	2887	A	C5-C6-N6	-7.30	117.86	123.70
5	A	1988	G	C5-C6-O6	-7.30	124.22	128.60
5	A	1109	G	C5-C6-O6	-7.30	124.22	128.60
5	A	1490	A	C5-C6-N1	-7.30	114.05	117.70
5	A	2312	C	O4'-C1'-N1	7.30	114.04	108.20
5	A	2756	G	C5-C6-O6	-7.30	124.22	128.60
5	A	2728	U	O4'-C1'-N1	7.30	114.04	108.20
5	A	833	C	P-O3'-C3'	-7.30	110.94	119.70
5	A	2640	C	O4'-C1'-N1	7.30	114.04	108.20
5	A	579	G	C5-C6-O6	-7.29	124.22	128.60
5	A	925	A	O4'-C1'-N9	7.29	114.03	108.20
5	A	1329	C	O4'-C1'-N1	7.29	114.03	108.20
5	A	1922	C	O4'-C1'-N1	7.29	114.03	108.20
5	A	2021	G	C5-C6-O6	-7.29	124.22	128.60
5	A	2049	A	O4'-C1'-N9	7.29	114.03	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2176	A	C4-C5-C6	7.29	120.65	117.00
5	A	271	C	O4'-C1'-N1	7.29	114.03	108.20
5	A	1296	G	O4'-C1'-N9	7.29	114.03	108.20
5	A	2045	U	O4'-C1'-N1	7.29	114.03	108.20
5	A	2707	C	P-O5'-C5'	7.29	132.57	120.90
5	A	215	G	C5-C6-O6	-7.29	124.23	128.60
5	A	2075	G	C5-C6-O6	-7.29	124.23	128.60
5	A	1226	U	O4'-C1'-N1	7.29	114.03	108.20
5	A	2606	A	C5-C6-N6	-7.29	117.87	123.70
5	A	496	A	C5-C6-N6	-7.29	117.87	123.70
5	A	2474	G	C5-C6-O6	-7.29	124.23	128.60
5	A	938	G	N1-C6-O6	7.28	124.27	119.90
5	A	425	C	O4'-C1'-N1	7.28	114.03	108.20
5	A	1800	C	N3-C4-N4	7.28	123.10	118.00
5	A	1875	G	O4'-C1'-N9	7.28	114.02	108.20
5	A	2660	G	C5-C6-O6	-7.28	124.23	128.60
5	A	2871	G	C5-C6-O6	-7.28	124.23	128.60
5	A	1857	G	N3-C2-N2	7.28	124.99	119.90
5	A	2669	G	C5-C6-O6	-7.28	124.23	128.60
5	A	2849	U	O4'-C1'-N1	7.27	114.02	108.20
5	A	597	G	C5-C6-O6	-7.27	124.24	128.60
5	A	1687	G	C5-C6-O6	-7.27	124.24	128.60
5	A	169	G	C5-C6-O6	-7.27	124.24	128.60
5	A	940	G	C5-C6-O6	-7.27	124.24	128.60
5	A	2649	C	N3-C4-N4	7.27	123.09	118.00
6	B	85	U	O4'-C1'-N1	7.27	114.02	108.20
5	A	1338	G	C5-C6-O6	-7.27	124.24	128.60
5	A	2873	G	P-O3'-C3'	7.27	128.42	119.70
5	A	2761	G	P-O5'-C5'	7.27	132.53	120.90
5	A	66	C	N3-C4-N4	7.26	123.08	118.00
5	A	96	G	C5-C6-O6	-7.26	124.24	128.60
5	A	895	G	O4'-C1'-N9	7.26	114.01	108.20
5	A	1836	G	O4'-C1'-N9	7.26	114.01	108.20
5	A	2918	G	C5-C6-O6	-7.26	124.24	128.60
5	A	424	G	C5-C6-O6	-7.26	124.24	128.60
5	A	438	A	C5-C6-N6	-7.26	117.89	123.70
5	A	1101	G	O4'-C1'-N9	7.26	114.01	108.20
6	B	65	G	C5-C6-O6	-7.26	124.24	128.60
5	A	1921	C	O4'-C1'-N1	7.26	114.01	108.20
5	A	245	G	C5-C6-O6	-7.26	124.25	128.60
5	A	331	C	O4'-C1'-N1	7.26	114.01	108.20
5	A	1172	A	O4'-C1'-N9	7.26	114.01	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1682	C	P-O5'-C5'	7.26	132.51	120.90
5	A	550	G	O4'-C1'-N9	7.26	114.01	108.20
5	A	2128	U	O4'-C1'-N1	7.26	114.01	108.20
5	A	2188	G	C5-C6-O6	-7.26	124.25	128.60
5	A	2856	G	C5-C6-O6	-7.25	124.25	128.60
5	A	43	G	C5-C6-O6	-7.25	124.25	128.60
5	A	2029	G	C5-C6-O6	-7.25	124.25	128.60
5	A	1619	A	C5-C6-N6	-7.25	117.90	123.70
5	A	369	A	O4'-C1'-N9	7.25	114.00	108.20
5	A	1283	U	O4'-C1'-N1	7.25	114.00	108.20
5	A	1848	A	C2'-C3'-O3'	7.25	125.45	109.50
5	A	859	C	O4'-C1'-N1	7.25	114.00	108.20
5	A	1654	A	O4'-C1'-N9	7.25	114.00	108.20
5	A	1587	U	O4'-C1'-N1	7.25	114.00	108.20
5	A	291	C	O4'-C1'-N1	7.24	114.00	108.20
5	A	600	A	C4-C5-C6	7.24	120.62	117.00
5	A	927	G	C5-C6-O6	-7.24	124.25	128.60
5	A	2632	G	C5-C6-O6	-7.24	124.25	128.60
5	A	1	G	C5-C6-O6	-7.24	124.26	128.60
5	A	215	G	O4'-C1'-N9	7.24	113.99	108.20
5	A	1153	G	C5-C6-O6	-7.24	124.26	128.60
5	A	2268	G	C5-C6-O6	-7.24	124.25	128.60
5	A	2302	A	C4-C5-C6	7.24	120.62	117.00
5	A	423	G	O4'-C1'-N9	7.24	113.99	108.20
6	B	99	A	C5-C6-N6	-7.24	117.91	123.70
5	A	531	C	O4'-C1'-N1	7.24	113.99	108.20
5	A	2761	G	C5-C6-O6	-7.24	124.26	128.60
5	A	137	G	C5-C6-O6	-7.24	124.26	128.60
5	A	998	G	O4'-C1'-N9	7.24	113.99	108.20
5	A	1292	G	O4'-C1'-N9	7.24	113.99	108.20
5	A	1622	C	O4'-C1'-N1	7.24	113.99	108.20
5	A	1634	U	O4'-C1'-N1	7.24	113.99	108.20
5	A	2196	U	O4'-C1'-N1	7.24	113.99	108.20
5	A	983	U	O4'-C1'-N1	7.23	113.99	108.20
5	A	2409	U	O4'-C1'-N1	7.23	113.99	108.20
5	A	20	C	O4'-C1'-N1	7.23	113.99	108.20
5	A	432	C	O4'-C1'-N1	7.23	113.99	108.20
5	A	1938	C	O4'-C1'-N1	7.23	113.99	108.20
5	A	2238	C	O4'-C1'-N1	7.23	113.99	108.20
5	A	595	G	C5-C6-O6	-7.23	124.26	128.60
5	A	25	U	O4'-C1'-N1	7.23	113.98	108.20
5	A	1300	G	C5-C6-O6	-7.23	124.26	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1657	C	P-O3'-C3'	7.23	128.37	119.70
5	A	2346	C	O4'-C1'-N1	7.23	113.98	108.20
5	A	87	U	O4'-C1'-N1	7.23	113.98	108.20
5	A	583	G	O4'-C1'-N9	7.22	113.98	108.20
5	A	1061	A	C5-C6-N1	-7.22	114.09	117.70
5	A	1492	G	P-O3'-C3'	7.22	128.37	119.70
5	A	2785	U	O4'-C1'-N1	7.22	113.98	108.20
5	A	639	C	O4'-C1'-N1	7.22	113.97	108.20
5	A	1080	G	C5-C6-O6	-7.22	124.27	128.60
5	A	1943	C	C6-N1-C1'	-7.22	112.14	120.80
5	A	2686	A	O4'-C1'-N9	7.22	113.97	108.20
5	A	1841	G	C5-C6-O6	-7.22	124.27	128.60
5	A	2400	G	O4'-C1'-N9	7.22	113.97	108.20
5	A	941	U	P-O5'-C5'	7.21	132.44	120.90
5	A	458	G	C5-C6-O6	-7.21	124.27	128.60
5	A	1310	C	O4'-C1'-N1	7.21	113.97	108.20
5	A	1737	U	O4'-C1'-N1	7.21	113.97	108.20
5	A	2050	G	O4'-C1'-N9	7.21	113.97	108.20
5	A	710	G	C5-C6-O6	-7.21	124.27	128.60
5	A	342	A	N1-C6-N6	7.21	122.92	118.60
5	A	2554	G	C5-C6-O6	-7.21	124.28	128.60
5	A	807	G	O4'-C1'-N9	7.21	113.97	108.20
5	A	1333	C	O4'-C1'-N1	7.21	113.97	108.20
5	A	2081	G	C5-C6-O6	-7.21	124.28	128.60
6	B	77	G	C5-C6-O6	-7.21	124.28	128.60
5	A	1358	G	C5-C6-O6	-7.21	124.28	128.60
5	A	2899	C	O4'-C1'-N1	7.21	113.96	108.20
5	A	528	G	C5-C6-O6	-7.20	124.28	128.60
5	A	1067	A	C4-C5-C6	7.20	120.60	117.00
5	A	121	G	O4'-C1'-N9	7.20	113.96	108.20
5	A	2867	U	O4'-C1'-N1	7.20	113.96	108.20
5	A	778	C	N3-C4-N4	7.20	123.04	118.00
5	A	1013	U	O4'-C1'-N1	7.20	113.96	108.20
5	A	1813	A	O4'-C1'-N9	7.20	113.96	108.20
5	A	569	C	O4'-C1'-N1	7.20	113.96	108.20
5	A	2047	A	C5-C6-N6	-7.20	117.94	123.70
5	A	1821	G	O4'-C1'-N9	7.20	113.96	108.20
5	A	2488	A	C5-C6-N6	-7.20	117.94	123.70
5	A	647	A	O4'-C1'-N9	7.19	113.96	108.20
5	A	1007	G	C5-C6-O6	-7.19	124.28	128.60
5	A	1052	C	O4'-C1'-N1	7.19	113.95	108.20
5	A	2026	A	O4'-C1'-N9	7.19	113.95	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	533	C	O4'-C1'-N1	7.19	113.95	108.20
5	A	549	A	C4-C5-C6	7.18	120.59	117.00
5	A	1408	G	C5-C6-O6	-7.18	124.29	128.60
5	A	317	G	C5-C6-O6	-7.18	124.29	128.60
5	A	849	A	C5-C6-N6	-7.18	117.95	123.70
5	A	2263	G	C5-C6-O6	-7.18	124.29	128.60
6	B	34	C	O4'-C1'-N1	7.18	113.95	108.20
5	A	949	U	O4'-C1'-N1	7.18	113.94	108.20
5	A	1675	A	C5-C6-N1	-7.18	114.11	117.70
5	A	1342	G	C5-C6-O6	-7.18	124.29	128.60
5	A	1348	G	O4'-C1'-N9	7.18	113.94	108.20
5	A	2432	C	O4'-C1'-N1	7.18	113.94	108.20
5	A	775	G	C5-C6-O6	-7.18	124.29	128.60
6	B	16	G	O4'-C1'-N9	7.18	113.94	108.20
5	A	2773	G	C5-C6-O6	-7.18	124.29	128.60
5	A	2825	C	O4'-C1'-N1	7.18	113.94	108.20
5	A	453	G	O4'-C1'-N9	7.17	113.94	108.20
5	A	599	G	C5-C6-O6	-7.17	124.30	128.60
5	A	870	A	O4'-C1'-N9	7.17	113.94	108.20
5	A	1419	G	O4'-C1'-N9	7.17	113.94	108.20
5	A	2836	G	C5-C6-O6	-7.17	124.30	128.60
5	A	857	U	O4'-C1'-N1	7.17	113.94	108.20
5	A	93	C	O4'-C1'-N1	7.17	113.94	108.20
5	A	2676	U	O4'-C1'-N1	7.17	113.94	108.20
5	A	1314	A	O4'-C1'-N9	7.17	113.93	108.20
6	B	59	U	O4'-C1'-N1	7.17	113.94	108.20
5	A	1116	A	O4'-C1'-N9	7.17	113.93	108.20
5	A	611	U	O4'-C1'-N1	7.17	113.93	108.20
5	A	2720	C	N3-C4-N4	7.17	123.02	118.00
5	A	436	A	O4'-C1'-N9	7.16	113.93	108.20
5	A	807	G	C5-C6-O6	-7.16	124.30	128.60
5	A	2650	G	C5-C6-O6	-7.16	124.30	128.60
5	A	1026	A	O4'-C1'-N9	7.16	113.93	108.20
5	A	1493	C	O4'-C1'-N1	7.16	113.93	108.20
5	A	405	U	O4'-C1'-N1	7.16	113.93	108.20
5	A	2443	G	C5-C6-O6	-7.16	124.31	128.60
5	A	260	A	C5-C6-N6	-7.16	117.97	123.70
5	A	2889	A	O4'-C1'-N9	7.16	113.93	108.20
5	A	1437	C	N3-C4-N4	7.16	123.01	118.00
5	A	2884	G	O4'-C1'-N9	7.16	113.92	108.20
6	B	52	G	C5-C6-O6	-7.16	124.31	128.60
5	A	1327	U	O4'-C1'-N1	7.15	113.92	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	189	G	C5-C6-O6	-7.15	124.31	128.60
5	A	585	G	C5-C6-O6	-7.15	124.31	128.60
5	A	1051	C	N3-C4-N4	7.15	123.00	118.00
5	A	1651	G	C5-C6-O6	-7.15	124.31	128.60
5	A	2581	U	O4'-C1'-N1	7.15	113.92	108.20
5	A	2746	G	O4'-C1'-N9	7.15	113.92	108.20
5	A	2833	U	C5'-C4'-O4'	7.15	117.68	109.10
5	A	1853	G	C5-C6-O6	-7.14	124.31	128.60
5	A	2460	U	O4'-C1'-N1	7.14	113.92	108.20
5	A	421	A	C4-C5-C6	7.14	120.57	117.00
5	A	1690	G	C5-C6-O6	-7.14	124.31	128.60
5	A	16	G	O4'-C1'-N9	7.14	113.91	108.20
5	A	1191	C	O4'-C1'-N1	7.14	113.91	108.20
5	A	1834	C	O4'-C1'-N1	7.14	113.91	108.20
5	A	106	G	C5-C6-O6	-7.14	124.32	128.60
5	A	698	C	O4'-C1'-N1	7.14	113.91	108.20
5	A	2650	G	O4'-C1'-N9	7.14	113.91	108.20
5	A	340	U	O4'-C1'-N1	7.13	113.91	108.20
5	A	746	A	C4-C5-C6	7.13	120.57	117.00
5	A	1309	G	C5-C6-O6	-7.13	124.32	128.60
5	A	1848	A	P-O3'-C3'	7.13	128.26	119.70
5	A	2516	G	C5-C6-O6	-7.13	124.32	128.60
6	B	19	G	O4'-C1'-N9	7.13	113.91	108.20
5	A	715	A	O4'-C1'-N9	7.13	113.90	108.20
5	A	1554	U	P-O5'-C5'	7.13	132.31	120.90
5	A	2778	A	C4-C5-C6	7.13	120.56	117.00
5	A	1593	A	C4-C5-C6	7.13	120.56	117.00
5	A	14	A	O4'-C1'-N9	7.13	113.90	108.20
5	A	2244	G	O4'-C1'-N9	7.13	113.90	108.20
5	A	146	U	O4'-C1'-N1	7.12	113.90	108.20
5	A	289	C	O4'-C1'-N1	7.12	113.90	108.20
5	A	420	U	O4'-C1'-N1	7.12	113.90	108.20
5	A	450	U	P-O3'-C3'	7.12	128.25	119.70
5	A	2771	G	O4'-C1'-N9	7.12	113.90	108.20
5	A	11	G	C5-C6-O6	-7.12	124.33	128.60
5	A	775	G	O4'-C1'-N9	7.12	113.89	108.20
5	A	984	G	C5-C6-O6	-7.12	124.33	128.60
5	A	2116	G	O4'-C1'-N9	7.12	113.89	108.20
5	A	294	G	C5-C6-O6	-7.11	124.33	128.60
5	A	1366	C	O4'-C1'-N1	7.11	113.89	108.20
5	A	2052	A	O4'-C1'-N9	7.11	113.89	108.20
5	A	2690	G	O4'-C1'-N9	7.11	113.89	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2710	C	C2-N1-C1'	7.11	126.62	118.80
5	A	189	G	O4'-C1'-N9	7.11	113.89	108.20
5	A	1373	U	O4'-C1'-N1	7.11	113.89	108.20
5	A	105	C	O4'-C1'-N1	7.11	113.89	108.20
5	A	262	G	O4'-C1'-N9	7.11	113.89	108.20
5	A	1186	C	O4'-C1'-N1	7.11	113.89	108.20
5	A	2207	C	C2-N1-C1'	7.11	126.62	118.80
6	B	97	A	C4-C5-C6	7.11	120.55	117.00
5	A	452	C	O4'-C1'-N1	7.11	113.89	108.20
5	A	848	G	C5-C6-O6	-7.11	124.34	128.60
5	A	2368	G	C5-C6-O6	-7.11	124.34	128.60
5	A	948	A	C4-C5-C6	7.10	120.55	117.00
5	A	1420	G	C5-C6-O6	-7.10	124.34	128.60
5	A	2627	A	O4'-C1'-N9	7.10	113.88	108.20
5	A	867	A	C4-C5-C6	7.10	120.55	117.00
5	A	920	G	O4'-C1'-N9	7.10	113.88	108.20
5	A	1769	G	C5-C6-O6	-7.10	124.34	128.60
5	A	2660	G	O4'-C1'-N9	7.10	113.88	108.20
5	A	222	A	O4'-C1'-N9	7.10	113.88	108.20
5	A	354	A	O4'-C1'-N9	7.10	113.88	108.20
5	A	1277	A	O4'-C1'-N9	7.10	113.88	108.20
5	A	1449	C	C5'-C4'-C3'	-7.10	104.64	116.00
5	A	1588	A	P-O3'-C3'	7.10	128.22	119.70
5	A	27	G	C5-C6-O6	-7.09	124.34	128.60
5	A	263	G	C5-C6-O6	-7.09	124.34	128.60
5	A	1925	A	C5-C6-N6	-7.09	118.02	123.70
5	A	2264	G	C5-C6-O6	-7.09	124.34	128.60
6	B	52	G	O4'-C1'-N9	7.09	113.88	108.20
5	A	153	C	O4'-C1'-N1	7.09	113.87	108.20
6	B	33	U	O4'-C1'-N1	7.09	113.87	108.20
5	A	1451	U	O4'-C1'-N1	7.09	113.87	108.20
5	A	1491	A	C4-C5-C6	7.09	120.55	117.00
6	B	1	U	O4'-C1'-N1	7.09	113.87	108.20
5	A	111	U	O4'-C1'-N1	7.09	113.87	108.20
5	A	214	G	O4'-C1'-N9	7.09	113.87	108.20
5	A	475	A	C5-C6-N6	-7.09	118.03	123.70
5	A	787	C	O4'-C1'-N1	7.09	113.87	108.20
5	A	667	A	C4-C5-C6	7.09	120.54	117.00
5	A	839	G	C5-C6-O6	-7.09	124.35	128.60
5	A	858	U	O4'-C1'-N1	7.09	113.87	108.20
5	A	1386	G	C5-C6-O6	-7.09	124.35	128.60
5	A	351	G	O4'-C1'-N9	7.08	113.87	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1508	C	O4'-C1'-N1	7.08	113.87	108.20
5	A	854	U	O4'-C1'-N1	7.08	113.87	108.20
5	A	2497	A	O4'-C1'-N9	7.08	113.87	108.20
5	A	527	A	C5-C6-N1	-7.08	114.16	117.70
5	A	758	A	C4-C5-C6	7.08	120.54	117.00
5	A	1979	G	C5-C6-O6	-7.08	124.35	128.60
5	A	2202	A	C4-C5-C6	7.08	120.54	117.00
5	A	2434	G	O4'-C1'-N9	7.08	113.87	108.20
6	B	69	C	O4'-C1'-N1	7.08	113.86	108.20
5	A	845	G	C5-C6-O6	-7.08	124.35	128.60
5	A	442	C	O4'-C1'-N1	7.08	113.86	108.20
5	A	493	G	O4'-C1'-N9	7.08	113.86	108.20
5	A	914	C	O4'-C1'-N1	7.08	113.86	108.20
5	A	1482	G	C5-C6-O6	-7.08	124.35	128.60
5	A	2627	A	C4-C5-C6	7.08	120.54	117.00
5	A	2596	G	C5-C6-O6	-7.07	124.36	128.60
5	A	378	C	P-O5'-C5'	7.07	132.22	120.90
5	A	541	G	C5-C6-O6	-7.07	124.36	128.60
5	A	966	U	O4'-C1'-N1	7.07	113.86	108.20
5	A	2888	C	N3-C4-N4	7.07	122.95	118.00
5	A	1161	A	O4'-C1'-N9	7.07	113.86	108.20
5	A	100	U	P-O3'-C3'	7.07	128.18	119.70
5	A	322	A	C4-C5-C6	7.07	120.53	117.00
5	A	1704	U	O4'-C1'-N1	7.07	113.85	108.20
5	A	2429	G	C5-C6-O6	-7.07	124.36	128.60
5	A	903	G	O4'-C1'-N9	7.07	113.85	108.20
5	A	2763	C	O4'-C1'-N1	7.07	113.85	108.20
5	A	1231	G	C5-C6-O6	-7.06	124.36	128.60
5	A	1325	A	C4-C5-C6	7.06	120.53	117.00
5	A	351	G	N3-C2-N2	7.06	124.84	119.90
5	A	1550	C	N3-C4-N4	7.06	122.94	118.00
6	B	100	G	O4'-C1'-N9	7.06	113.85	108.20
5	A	992	G	C5-C6-O6	-7.06	124.36	128.60
5	A	1597	C	O4'-C1'-N1	7.06	113.85	108.20
5	A	1804	U	O4'-C1'-N1	7.06	113.85	108.20
5	A	2224	U	O4'-C1'-N1	7.06	113.85	108.20
5	A	847	A	O4'-C1'-N9	7.06	113.85	108.20
5	A	225	A	C4-C5-C6	7.06	120.53	117.00
5	A	748	G	C5-C6-O6	-7.06	124.37	128.60
5	A	1673	G	O4'-C1'-N9	7.06	113.84	108.20
5	A	2397	C	O4'-C1'-N1	7.06	113.84	108.20
6	B	21	G	O4'-C1'-N9	7.05	113.84	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	595	G	O4'-C1'-N9	7.05	113.84	108.20
5	A	1184	G	C5-C6-O6	-7.05	124.37	128.60
5	A	1662	C	N3-C4-N4	7.05	122.94	118.00
5	A	116	G	O4'-C1'-N9	7.05	113.84	108.20
5	A	2545	G	O4'-C1'-N9	7.05	113.84	108.20
5	A	2886	C	N3-C4-N4	7.05	122.94	118.00
5	A	2924	A	C4-C5-C6	7.05	120.53	117.00
5	A	2221	C	O4'-C1'-N1	7.05	113.84	108.20
5	A	1996	C	O4'-C1'-N1	7.05	113.84	108.20
5	A	419	G	P-O3'-C3'	7.05	128.16	119.70
5	A	1135	G	O4'-C1'-N9	7.05	113.84	108.20
5	A	1760	A	O4'-C1'-N9	7.05	113.84	108.20
5	A	2006	A	C4-C5-C6	7.05	120.52	117.00
5	A	2245	G	C5-C6-O6	-7.05	124.37	128.60
6	B	45	C	O4'-C1'-N1	7.04	113.84	108.20
5	A	1630	G	O4'-C1'-N9	7.04	113.84	108.20
5	A	2733	C	P-O5'-C5'	7.04	132.17	120.90
5	A	1960	U	O4'-C1'-N1	7.04	113.83	108.20
5	A	2206	C	O4'-C1'-N1	7.04	113.83	108.20
5	A	2370	G	C5-C6-O6	-7.04	124.38	128.60
5	A	716	G	C4-N9-C1'	7.04	135.65	126.50
5	A	1261	C	O4'-C1'-N1	7.04	113.83	108.20
5	A	1316	A	O4'-C1'-N9	7.04	113.83	108.20
5	A	1831	A	C4-C5-C6	7.04	120.52	117.00
5	A	624	C	O4'-C1'-N1	7.04	113.83	108.20
5	A	2025	C	O4'-C1'-N1	7.04	113.83	108.20
5	A	2859	G	C4-N9-C1'	7.04	135.65	126.50
5	A	607	G	C5-C6-O6	-7.03	124.38	128.60
5	A	771	U	O4'-C1'-N1	7.03	113.83	108.20
5	A	1761	G	C5-C6-O6	-7.03	124.38	128.60
6	B	21	G	C5-C6-O6	-7.03	124.38	128.60
5	A	73	A	O4'-C1'-N9	7.03	113.83	108.20
5	A	506	U	O4'-C1'-N1	7.03	113.83	108.20
5	A	2736	G	C5-C6-O6	-7.03	124.38	128.60
5	A	1469	G	O4'-C1'-N9	7.03	113.83	108.20
5	A	45	G	P-O5'-C5'	7.03	132.15	120.90
5	A	23	G	C5-C6-O6	-7.03	124.38	128.60
5	A	1134	A	C4-C5-C6	7.03	120.51	117.00
5	A	1216	C	O4'-C1'-N1	7.03	113.82	108.20
5	A	1679	A	C4-C5-C6	7.03	120.51	117.00
5	A	2372	U	O4'-C1'-N1	7.03	113.82	108.20
5	A	2604	C	O4'-C1'-N1	7.03	113.82	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	981	C	O4'-C1'-N1	7.02	113.82	108.20
5	A	1597	C	N3-C4-N4	7.02	122.92	118.00
5	A	2381	A	C4-C5-C6	7.02	120.51	117.00
5	A	865	G	C5-C6-O6	-7.02	124.39	128.60
5	A	1238	G	O4'-C1'-N9	7.02	113.81	108.20
5	A	1018	G	C5-C6-O6	-7.02	124.39	128.60
5	A	2126	G	C5-C6-O6	-7.02	124.39	128.60
5	A	2666	U	O4'-C1'-N1	7.02	113.81	108.20
5	A	982	U	O4'-C1'-N1	7.01	113.81	108.20
5	A	2662	A	O4'-C1'-N9	7.01	113.81	108.20
6	B	5	G	O4'-C1'-N9	7.01	113.81	108.20
6	B	48	G	O4'-C1'-N9	7.01	113.81	108.20
5	A	245	G	O4'-C1'-N9	7.01	113.81	108.20
5	A	2328	G	C5-C6-O6	-7.01	124.39	128.60
5	A	2337	G	O4'-C1'-N9	7.01	113.81	108.20
5	A	2668	A	O4'-C1'-N9	7.01	113.81	108.20
6	B	13	A	O4'-C1'-N9	7.01	113.81	108.20
6	B	49	G	O4'-C1'-N9	7.01	113.81	108.20
6	B	66	C	O4'-C1'-N1	7.01	113.81	108.20
5	A	1230	A	C4-C5-C6	7.01	120.50	117.00
5	A	1345	U	O4'-C1'-N1	7.01	113.81	108.20
5	A	1598	C	O4'-C1'-N1	7.01	113.81	108.20
5	A	2052	A	C5-C6-N6	-7.01	118.09	123.70
5	A	2561	G	C5-C6-O6	-7.01	124.39	128.60
5	A	90	A	P-O3'-C3'	7.01	128.11	119.70
5	A	1568	G	C5-C6-O6	-7.01	124.39	128.60
5	A	2251	G	C5-C6-O6	-7.01	124.39	128.60
5	A	243	G	C5-C6-O6	-7.01	124.40	128.60
5	A	1666	U	O4'-C1'-N1	7.01	113.81	108.20
5	A	1800	C	O4'-C1'-N1	7.01	113.81	108.20
5	A	2338	A	O4'-C1'-N9	7.01	113.81	108.20
5	A	2435	C	O4'-C1'-N1	7.01	113.81	108.20
5	A	257	G	P-O5'-C5'	7.00	132.10	120.90
5	A	1658	G	O4'-C1'-N9	7.00	113.80	108.20
5	A	1746	A	C5-C6-N6	-7.00	118.10	123.70
5	A	1770	C	O4'-C1'-N1	7.00	113.80	108.20
5	A	2318	G	O4'-C1'-N9	7.00	113.80	108.20
5	A	2413	G	O4'-C1'-N9	7.00	113.80	108.20
5	A	2831	A	O4'-C1'-N9	7.00	113.80	108.20
5	A	2916	A	O4'-C1'-N9	7.00	113.80	108.20
5	A	9	U	P-O3'-C3'	7.00	128.10	119.70
5	A	1406	A	P-O3'-C3'	7.00	128.10	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1924	C	N3-C4-N4	7.00	122.90	118.00
5	A	2360	G	O4'-C1'-N9	7.00	113.80	108.20
5	A	47	C	N3-C4-N4	7.00	122.90	118.00
5	A	697	G	C5-C6-O6	-7.00	124.40	128.60
5	A	706	C	N3-C4-N4	7.00	122.90	118.00
5	A	1247	G	O4'-C1'-N9	7.00	113.80	108.20
5	A	299	U	O4'-C1'-N1	7.00	113.80	108.20
5	A	1378	G	O4'-C1'-N9	7.00	113.80	108.20
5	A	2764	G	C5-C6-O6	-7.00	124.40	128.60
5	A	1285	G	O4'-C1'-N9	6.99	113.80	108.20
5	A	1530	G	C5-C6-O6	-6.99	124.40	128.60
5	A	1606	A	O4'-C1'-N9	6.99	113.80	108.20
5	A	1731	C	O4'-C1'-N1	6.99	113.80	108.20
5	A	892	U	O4'-C1'-N1	6.99	113.79	108.20
5	A	929	G	C5-C6-O6	-6.99	124.41	128.60
5	A	1436	U	O4'-C1'-N1	6.99	113.79	108.20
5	A	1599	U	O4'-C1'-N1	6.99	113.79	108.20
5	A	2027	A	P-O5'-C5'	6.99	132.08	120.90
5	A	90	A	O4'-C1'-N9	6.99	113.79	108.20
5	A	1032	C	P-O5'-C5'	6.99	132.08	120.90
5	A	1532	A	C5-C6-N6	-6.99	118.11	123.70
5	A	259	A	C4-C5-C6	6.99	120.49	117.00
5	A	1786	U	O4'-C1'-N1	6.99	113.79	108.20
5	A	2538	G	O4'-C1'-N9	6.99	113.79	108.20
6	B	119	G	C5-C6-O6	-6.99	124.41	128.60
5	A	677	A	P-O3'-C3'	6.98	128.08	119.70
5	A	2566	U	O4'-C1'-N1	6.98	113.79	108.20
5	A	264	G	C5-C6-O6	-6.98	124.41	128.60
5	A	1271	U	O4'-C1'-N1	6.98	113.79	108.20
5	A	1413	G	C5-C6-O6	-6.98	124.41	128.60
5	A	1588	A	C5-C6-N1	-6.98	114.21	117.70
5	A	2001	G	O4'-C1'-N9	6.98	113.79	108.20
5	A	2192	U	P-O3'-C3'	6.98	128.08	119.70
5	A	1590	C	C2-N1-C1'	6.98	126.48	118.80
5	A	2853	C	O4'-C1'-N1	6.98	113.78	108.20
6	B	94	G	O4'-C1'-N9	6.98	113.78	108.20
5	A	143	G	C5-C6-O6	-6.97	124.42	128.60
5	A	9	U	O4'-C1'-N1	6.97	113.78	108.20
5	A	1519	C	O4'-C1'-N1	6.97	113.78	108.20
5	A	1803	C	O4'-C1'-N1	6.97	113.78	108.20
5	A	1850	A	C5-C6-N1	-6.97	114.21	117.70
5	A	2345	U	O4'-C1'-N1	6.97	113.78	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	757	C	O4'-C1'-N1	6.97	113.78	108.20
5	A	2830	A	C4-C5-C6	6.97	120.49	117.00
5	A	140	A	C4-C5-C6	6.97	120.48	117.00
5	A	214	G	C5-C6-O6	-6.97	124.42	128.60
5	A	230	A	C5-C6-N6	-6.97	118.12	123.70
5	A	471	G	O4'-C1'-N9	6.97	113.78	108.20
5	A	686	C	O4'-C1'-N1	6.97	113.78	108.20
5	A	2619	A	C4-C5-C6	6.97	120.48	117.00
5	A	1656	C	O4'-C1'-N1	6.97	113.78	108.20
5	A	1122	C	O4'-C1'-N1	6.97	113.77	108.20
5	A	1324	G	C5-C6-O6	-6.97	124.42	128.60
5	A	2330	A	O4'-C1'-N9	6.96	113.77	108.20
5	A	2498	A	O4'-C1'-N9	6.96	113.77	108.20
5	A	157	U	O4'-C1'-N1	6.96	113.77	108.20
5	A	205	U	O4'-C1'-N1	6.96	113.77	108.20
5	A	909	G	O4'-C1'-N9	6.96	113.77	108.20
5	A	1037	C	O4'-C1'-N1	6.96	113.77	108.20
5	A	1343	C	N3-C4-N4	6.96	122.87	118.00
5	A	1353	C	N3-C4-C5	-6.96	119.12	121.90
5	A	1627	A	P-O3'-C3'	6.96	128.05	119.70
5	A	2194	G	C5-C6-O6	-6.96	124.42	128.60
5	A	2457	G	C5-C6-O6	-6.96	124.42	128.60
5	A	262	G	C5-C6-O6	-6.96	124.42	128.60
5	A	2445	C	N3-C4-N4	6.96	122.87	118.00
5	A	1572	G	O4'-C1'-N9	6.96	113.77	108.20
5	A	206	A	C4-C5-C6	6.96	120.48	117.00
5	A	1107	U	O4'-C1'-N1	6.96	113.77	108.20
5	A	1576	G	N1-C6-O6	6.96	124.07	119.90
5	A	1983	G	C5-C6-O6	-6.96	124.43	128.60
5	A	2288	G	O4'-C1'-N9	6.96	113.77	108.20
5	A	679	A	C4-C5-C6	6.96	120.48	117.00
5	A	1548	U	O4'-C1'-N1	6.96	113.76	108.20
5	A	1695	A	O4'-C1'-N9	6.96	113.76	108.20
5	A	1533	A	C5-C6-N6	-6.95	118.14	123.70
5	A	1591	G	C5-C6-O6	-6.95	124.43	128.60
5	A	2044	A	C5-C6-N6	-6.95	118.14	123.70
5	A	86	C	O4'-C1'-N1	6.95	113.76	108.20
5	A	1048	G	O4'-C1'-N9	6.95	113.76	108.20
5	A	1740	G	C5-C6-O6	-6.95	124.43	128.60
5	A	42	G	C5-C6-O6	-6.95	124.43	128.60
5	A	1424	A	O4'-C1'-N9	6.95	113.76	108.20
5	A	2733	C	O4'-C1'-N1	6.95	113.76	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	880	C	N3-C4-N4	6.95	122.86	118.00
5	A	744	C	N3-C4-N4	6.95	122.86	118.00
5	A	1092	A	O4'-C1'-N9	6.95	113.76	108.20
5	A	233	G	C5-C6-O6	-6.94	124.43	128.60
5	A	766	C	N3-C4-N4	6.94	122.86	118.00
5	A	1307	U	O4'-C1'-N1	6.94	113.75	108.20
5	A	2534	G	C5-C6-O6	-6.94	124.43	128.60
5	A	516	G	C5-C6-O6	-6.94	124.43	128.60
5	A	957	A	O4'-C1'-N9	6.94	113.75	108.20
5	A	1137	G	C5-C6-O6	-6.94	124.44	128.60
5	A	194	A	O4'-C1'-N9	6.94	113.75	108.20
5	A	284	C	O4'-C1'-N1	6.94	113.75	108.20
5	A	951	C	O4'-C1'-N1	6.94	113.75	108.20
5	A	1502	G	C5-C6-O6	-6.94	124.44	128.60
5	A	1853	G	O4'-C1'-N9	6.94	113.75	108.20
5	A	1939	G	C5-C6-O6	-6.94	124.44	128.60
5	A	1840	G	O4'-C1'-N9	6.94	113.75	108.20
5	A	2442	G	O4'-C1'-N9	6.94	113.75	108.20
5	A	2607	G	O4'-C1'-N9	6.94	113.75	108.20
5	A	119	U	O4'-C1'-N1	6.94	113.75	108.20
5	A	161	A	C4-C5-C6	6.93	120.47	117.00
5	A	2624	G	O4'-C1'-N9	6.93	113.75	108.20
5	A	269	G	O4'-C1'-N9	6.93	113.75	108.20
5	A	787	C	N3-C4-N4	6.93	122.85	118.00
5	A	1022	G	C5-C6-O6	-6.93	124.44	128.60
5	A	1102	G	C5-C6-O6	-6.93	124.44	128.60
5	A	1369	C	C6-N1-C2	-6.93	117.53	120.30
5	A	1516	A	O4'-C1'-N9	6.93	113.75	108.20
5	A	2792	G	C5-C6-O6	-6.93	124.44	128.60
5	A	1250	G	C5-C6-O6	-6.93	124.44	128.60
5	A	2697	G	C5-C6-O6	-6.93	124.44	128.60
5	A	193	A	C4-C5-C6	6.93	120.47	117.00
5	A	291	C	N3-C4-C5	-6.93	119.13	121.90
5	A	427	G	C5-C6-O6	-6.93	124.44	128.60
5	A	947	A	C4-C5-C6	6.93	120.47	117.00
5	A	1218	U	O4'-C1'-N1	6.93	113.74	108.20
5	A	1287	A	O4'-C1'-N9	6.93	113.74	108.20
5	A	1397	G	O4'-C1'-N9	6.93	113.74	108.20
5	A	1015	G	C5-C6-O6	-6.93	124.44	128.60
5	A	412	A	O4'-C1'-N9	6.93	113.74	108.20
5	A	1789	A	C4-C5-C6	6.93	120.46	117.00
5	A	2609	U	O4'-C1'-N1	6.93	113.74	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1376	G	C5-C6-O6	-6.92	124.44	128.60
5	A	1157	A	C5-C6-N6	-6.92	118.16	123.70
5	A	270	C	O4'-C1'-N1	6.92	113.74	108.20
5	A	1757	G	C5-C6-O6	-6.92	124.45	128.60
5	A	2175	C	O4'-C1'-N1	6.92	113.74	108.20
5	A	2347	G	C5-C6-O6	-6.92	124.45	128.60
5	A	2504	C	O4'-C1'-N1	6.92	113.74	108.20
5	A	2654	G	O4'-C1'-N9	6.92	113.74	108.20
5	A	910	A	C5-C6-N6	-6.92	118.16	123.70
5	A	1440	G	C5-C6-O6	-6.92	124.45	128.60
5	A	1860	G	O4'-C1'-N9	6.92	113.74	108.20
5	A	2737	G	C5-C6-O6	-6.92	124.45	128.60
5	A	297	G	C5-C6-O6	-6.92	124.45	128.60
5	A	713	G	C5-C6-O6	-6.92	124.45	128.60
5	A	1522	U	O4'-C1'-N1	6.92	113.73	108.20
5	A	1567	U	O4'-C1'-N1	6.92	113.73	108.20
6	B	19	G	C5-C6-O6	-6.92	124.45	128.60
5	A	694	G	O4'-C1'-N9	6.92	113.73	108.20
6	B	10	G	C5-C6-O6	-6.92	124.45	128.60
5	A	429	A	O4'-C1'-N9	6.92	113.73	108.20
5	A	586	C	N3-C4-N4	6.92	122.84	118.00
5	A	130	A	O4'-C1'-N9	6.91	113.73	108.20
5	A	168	A	C4-C5-C6	6.91	120.46	117.00
5	A	250	G	C5-C6-O6	-6.91	124.45	128.60
5	A	684	G	C5-C6-O6	-6.91	124.45	128.60
5	A	1026	A	C4-C5-C6	6.91	120.46	117.00
5	A	1753	C	P-O5'-C5'	6.91	131.96	120.90
5	A	682	G	C5-C6-O6	-6.91	124.45	128.60
5	A	496	A	C4-C5-C6	6.91	120.46	117.00
5	A	552	G	C5-C6-O6	-6.91	124.45	128.60
5	A	1578	G	C5-C6-O6	-6.91	124.45	128.60
5	A	1792	G	C5-C6-O6	-6.91	124.45	128.60
5	A	2636	G	O4'-C1'-N9	6.91	113.73	108.20
5	A	376	A	C2'-C3'-O3'	6.91	124.75	113.70
5	A	1090	U	O4'-C1'-N1	6.91	113.73	108.20
5	A	1177	G	C5-C6-O6	-6.91	124.45	128.60
5	A	1746	A	C4-C5-C6	6.91	120.45	117.00
5	A	2614	U	C2-N1-C1'	6.91	125.99	117.70
5	A	1942	A	O4'-C1'-N9	6.91	113.73	108.20
5	A	140	A	O4'-C1'-N9	6.91	113.72	108.20
5	A	2707	C	N3-C4-N4	6.91	122.83	118.00
5	A	2130	G	C5-C6-O6	-6.90	124.46	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2	G	C5-C6-O6	-6.90	124.46	128.60
5	A	576	G	C5-C6-O6	-6.90	124.46	128.60
5	A	1093	G	C5-C6-O6	-6.90	124.46	128.60
5	A	2624	G	C5-C6-O6	-6.90	124.46	128.60
5	A	2760	G	C5-C6-O6	-6.90	124.46	128.60
5	A	1601	A	C4-C5-C6	6.90	120.45	117.00
5	A	2090	G	C5-C6-O6	-6.90	124.46	128.60
5	A	2122	G	C5-C6-O6	-6.90	124.46	128.60
5	A	1243	A	O4'-C1'-N9	6.90	113.72	108.20
5	A	2557	U	O4'-C1'-N1	6.90	113.72	108.20
5	A	280	G	O4'-C1'-N9	6.90	113.72	108.20
5	A	1280	G	N3-C2-N2	6.90	124.73	119.90
5	A	1306	G	C5-C6-O6	-6.90	124.46	128.60
5	A	1735	A	C4-C5-C6	6.90	120.45	117.00
5	A	2376	C	O4'-C1'-N1	6.90	113.72	108.20
5	A	1275	G	C5-C6-O6	-6.90	124.46	128.60
5	A	1745	A	O4'-C1'-N9	6.90	113.72	108.20
5	A	412	A	C4-C5-C6	6.89	120.45	117.00
5	A	1103	A	C4-C5-C6	6.89	120.45	117.00
5	A	2560	A	C4-C5-C6	6.89	120.45	117.00
5	A	432	C	N3-C4-N4	6.89	122.82	118.00
5	A	525	A	O4'-C1'-N9	6.89	113.71	108.20
5	A	1938	C	N3-C4-N4	6.89	122.83	118.00
5	A	2860	A	C5-C6-N6	-6.89	118.19	123.70
5	A	446	G	C5-C6-O6	-6.89	124.47	128.60
5	A	1243	A	C5-C6-N1	-6.89	114.26	117.70
5	A	111	U	P-O3'-C3'	6.89	127.96	119.70
5	A	619	A	C5-C6-N6	-6.89	118.19	123.70
5	A	1329	C	N3-C4-N4	6.89	122.82	118.00
5	A	1566	G	C5-C6-O6	-6.89	124.47	128.60
5	A	1724	A	C4-C5-C6	6.89	120.44	117.00
5	A	2036	U	O4'-C1'-N1	6.89	113.71	108.20
5	A	2134	A	C5-C6-N6	-6.89	118.19	123.70
5	A	2695	C	P-O5'-C5'	6.89	131.92	120.90
5	A	1788	A	C4-C5-C6	6.88	120.44	117.00
5	A	2610	G	C5-C6-O6	-6.88	124.47	128.60
5	A	965	A	N1-C6-N6	6.88	122.73	118.60
5	A	997	C	N3-C4-N4	6.88	122.82	118.00
5	A	1419	G	N1-C6-O6	6.88	124.03	119.90
6	B	35	C	O4'-C1'-N1	6.88	113.70	108.20
5	A	737	C	N3-C4-N4	6.88	122.81	118.00
5	A	842	C	N3-C4-N4	6.88	122.81	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2129	G	C5-C6-O6	-6.88	124.47	128.60
5	A	2607	G	C5-C6-O6	-6.88	124.47	128.60
5	A	292	U	O4'-C1'-N1	6.88	113.70	108.20
5	A	159	U	O4'-C1'-N1	6.87	113.70	108.20
5	A	1144	A	O4'-C1'-N9	6.87	113.70	108.20
5	A	2053	C	N3-C4-N4	6.87	122.81	118.00
5	A	1590	C	C6-N1-C1'	-6.87	112.56	120.80
5	A	287	G	C5-C6-O6	-6.87	124.48	128.60
5	A	648	G	C5-C6-O6	-6.87	124.48	128.60
5	A	276	C	O4'-C1'-N1	6.87	113.69	108.20
5	A	1846	G	O4'-C1'-N9	6.87	113.69	108.20
5	A	2248	G	O4'-C1'-N9	6.87	113.69	108.20
5	A	2658	A	O4'-C1'-N9	6.87	113.69	108.20
5	A	617	G	C5-C6-O6	-6.86	124.48	128.60
5	A	1360	A	C4-C5-C6	6.86	120.43	117.00
5	A	1545	C	O4'-C1'-N1	6.86	113.69	108.20
5	A	1923	C	C6-N1-C2	-6.86	117.56	120.30
5	A	2636	G	C5-C6-O6	-6.86	124.48	128.60
5	A	881	U	O4'-C1'-N1	6.86	113.69	108.20
5	A	1164	C	O4'-C1'-N1	6.86	113.69	108.20
5	A	2842	U	O4'-C1'-N1	6.86	113.69	108.20
5	A	149	U	O4'-C1'-N1	6.86	113.69	108.20
5	A	2266	G	C5-C6-O6	-6.86	124.48	128.60
5	A	2856	G	O4'-C1'-N9	6.86	113.69	108.20
5	A	1209	G	C5-C6-O6	-6.86	124.49	128.60
5	A	1992	C	C6-N1-C1'	-6.86	112.57	120.80
5	A	2093	C	O4'-C1'-N1	6.86	113.69	108.20
5	A	2313	C	N3-C4-N4	6.86	122.80	118.00
5	A	2751	G	O4'-C1'-N9	6.86	113.69	108.20
5	A	55	G	C5-C6-O6	-6.86	124.49	128.60
5	A	85	G	C5-C6-O6	-6.86	124.49	128.60
5	A	1437	C	O4'-C1'-N1	6.85	113.68	108.20
5	A	2077	G	O4'-C1'-N9	6.85	113.68	108.20
5	A	374	A	O4'-C1'-N9	6.85	113.68	108.20
5	A	1854	G	C5-C6-O6	-6.85	124.49	128.60
5	A	45	G	C5-C6-O6	-6.85	124.49	128.60
5	A	565	U	O4'-C1'-N1	6.85	113.68	108.20
5	A	893	A	O4'-C1'-N9	6.85	113.68	108.20
5	A	1605	C	O4'-C1'-N1	6.85	113.68	108.20
5	A	2171	G	O4'-C1'-N9	6.85	113.68	108.20
5	A	887	C	N3-C4-N4	6.85	122.80	118.00
5	A	938	G	C5-C6-O6	-6.85	124.49	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	942	U	O4'-C1'-N1	6.85	113.68	108.20
5	A	1081	U	O4'-C1'-N1	6.85	113.68	108.20
5	A	1146	C	N3-C4-N4	6.85	122.80	118.00
5	A	2774	C	N3-C4-N4	6.85	122.79	118.00
5	A	2886	C	O4'-C1'-N1	6.85	113.68	108.20
5	A	1581	A	C4'-C3'-C2'	-6.85	95.75	102.60
5	A	2108	U	O4'-C1'-N1	6.85	113.68	108.20
5	A	1196	C	N3-C4-N4	6.85	122.79	118.00
5	A	1509	C	N3-C4-N4	6.85	122.79	118.00
5	A	1256	C	N3-C4-N4	6.84	122.79	118.00
6	B	91	C	N3-C4-N4	6.84	122.79	118.00
5	A	2197	G	C5-C6-O6	-6.84	124.49	128.60
5	A	141	U	C2-N1-C1'	6.84	125.91	117.70
5	A	1530	G	O4'-C1'-N9	6.84	113.67	108.20
5	A	1928	A	C4-C5-C6	6.84	120.42	117.00
5	A	1637	G	C5-C6-O6	-6.84	124.50	128.60
5	A	2441	A	C4-C5-C6	6.84	120.42	117.00
5	A	131	C	N3-C4-C5	-6.84	119.17	121.90
5	A	566	G	O4'-C1'-N9	6.84	113.67	108.20
5	A	2121	U	C2-N1-C1'	6.84	125.90	117.70
5	A	2680	C	N3-C4-N4	6.84	122.79	118.00
6	B	84	G	C5-C6-O6	-6.84	124.50	128.60
5	A	419	G	C5-C6-O6	-6.83	124.50	128.60
5	A	2890	U	O4'-C1'-N1	6.83	113.67	108.20
5	A	122	G	O4'-C1'-N9	6.83	113.67	108.20
5	A	2031	G	C5-C6-O6	-6.83	124.50	128.60
5	A	2140	U	O4'-C1'-N1	6.83	113.67	108.20
5	A	2337	G	C5-C6-O6	-6.83	124.50	128.60
5	A	2656	G	C5-C6-O6	-6.83	124.50	128.60
5	A	1267	G	C5-C6-O6	-6.83	124.50	128.60
5	A	1586	G	N1-C6-O6	6.83	124.00	119.90
5	A	1846	G	C5-C6-O6	-6.83	124.50	128.60
5	A	2659	G	C5-C6-O6	-6.83	124.50	128.60
5	A	56	A	C4-C5-C6	6.83	120.42	117.00
5	A	954	U	O4'-C1'-N1	6.83	113.66	108.20
5	A	1763	G	O4'-C1'-N9	6.83	113.66	108.20
5	A	2086	G	C5-C6-O6	-6.83	124.50	128.60
5	A	2253	G	C5-C6-O6	-6.83	124.50	128.60
5	A	252	C	O4'-C1'-N1	6.83	113.66	108.20
5	A	1143	U	O4'-C1'-N1	6.83	113.66	108.20
5	A	1874	G	O4'-C1'-N9	6.83	113.66	108.20
5	A	2453	C	O4'-C1'-N1	6.83	113.66	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	539	G	O4'-C1'-N9	6.82	113.66	108.20
5	A	901	U	O4'-C1'-N1	6.82	113.66	108.20
5	A	728	G	C5-C6-O6	-6.82	124.51	128.60
5	A	930	C	N3-C4-C5	-6.82	119.17	121.90
5	A	2143	A	C4-C5-C6	6.82	120.41	117.00
5	A	2331	U	O4'-C1'-N1	6.82	113.66	108.20
5	A	2370	G	O4'-C1'-N9	6.82	113.66	108.20
5	A	328	G	C5-C6-O6	-6.82	124.51	128.60
5	A	343	A	O4'-C1'-N9	6.82	113.66	108.20
5	A	603	G	O4'-C1'-N9	6.82	113.66	108.20
5	A	47	C	O4'-C1'-N1	6.82	113.65	108.20
5	A	166	A	C5-C6-N6	-6.82	118.25	123.70
5	A	974	A	C5-C6-N1	-6.82	114.29	117.70
5	A	1044	C	N3-C4-N4	6.82	122.77	118.00
5	A	1991	C	O4'-C1'-N1	6.82	113.65	108.20
5	A	2437	U	O4'-C1'-N1	6.82	113.65	108.20
6	B	57	G	C5-C6-O6	-6.82	124.51	128.60
5	A	63	G	C5-C6-O6	-6.82	124.51	128.60
5	A	656	A	O4'-C1'-N9	6.82	113.65	108.20
5	A	2704	A	C5-C6-N1	-6.82	114.29	117.70
5	A	743	U	O4'-C1'-N1	6.81	113.65	108.20
5	A	1190	A	C5-C6-N6	-6.81	118.25	123.70
5	A	2180	U	O4'-C1'-N1	6.81	113.65	108.20
5	A	242	U	O4'-C1'-N1	6.81	113.65	108.20
5	A	589	G	C5-C6-O6	-6.81	124.51	128.60
5	A	923	C	P-O5'-C5'	6.81	131.80	120.90
5	A	1648	A	C5-C6-N6	-6.81	118.25	123.70
5	A	792	G	C5-C6-O6	-6.81	124.51	128.60
5	A	896	A	O4'-C1'-N9	6.81	113.65	108.20
5	A	1962	G	C5-C6-O6	-6.81	124.51	128.60
5	A	2097	U	O4'-C1'-N1	6.81	113.65	108.20
5	A	2408	G	O4'-C1'-N9	6.81	113.65	108.20
5	A	2521	U	O4'-C1'-N1	6.81	113.65	108.20
5	A	2855	G	C5-C6-O6	-6.81	124.51	128.60
5	A	1442	A	O4'-C1'-N9	6.81	113.65	108.20
5	A	2188	G	P-O3'-C3'	6.81	127.87	119.70
5	A	1304	G	C5-C6-O6	-6.81	124.52	128.60
5	A	450	U	O4'-C1'-N1	6.81	113.64	108.20
5	A	457	G	C5-C6-O6	-6.81	124.52	128.60
5	A	900	U	O4'-C1'-N1	6.81	113.64	108.20
5	A	2247	C	N3-C4-N4	6.81	122.76	118.00
5	A	307	A	C4-C5-C6	6.80	120.40	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	703	G	C5-C6-O6	-6.80	124.52	128.60
5	A	1316	A	C5-C6-N1	-6.80	114.30	117.70
5	A	1322	G	C5-C6-O6	-6.80	124.52	128.60
5	A	1571	G	C5-C6-O6	-6.80	124.52	128.60
5	A	1580	A	C4-C5-C6	6.80	120.40	117.00
5	A	2822	C	N3-C4-N4	6.80	122.76	118.00
5	A	556	C	N3-C4-N4	6.80	122.76	118.00
5	A	590	U	O4'-C1'-N1	6.80	113.64	108.20
5	A	1479	G	C5-C6-O6	-6.80	124.52	128.60
5	A	1604	C	N3-C4-N4	6.80	122.76	118.00
5	A	1639	G	C5-C6-O6	-6.80	124.52	128.60
5	A	83	G	C5-C6-O6	-6.80	124.52	128.60
5	A	544	G	C5-C6-O6	-6.80	124.52	128.60
5	A	751	G	C5-C6-O6	-6.80	124.52	128.60
5	A	2054	C	N3-C4-N4	6.80	122.76	118.00
5	A	2466	C	O4'-C1'-N1	6.80	113.64	108.20
5	A	2674	G	C5-C6-O6	-6.80	124.52	128.60
5	A	2850	G	C5-C6-O6	-6.80	124.52	128.60
5	A	353	A	C5-C6-N1	-6.79	114.30	117.70
5	A	1487	G	P-O3'-C3'	6.79	127.85	119.70
5	A	347	G	O4'-C1'-N9	6.79	113.64	108.20
5	A	686	C	N3-C4-N4	6.79	122.75	118.00
5	A	1782	G	C5-C6-O6	-6.79	124.52	128.60
5	A	817	G	O4'-C1'-N9	6.79	113.63	108.20
5	A	1427	G	P-O5'-C5'	6.79	131.76	120.90
5	A	1741	G	O4'-C1'-N9	6.79	113.63	108.20
5	A	293	U	O4'-C1'-N1	6.79	113.63	108.20
5	A	411	G	C5'-C4'-C3'	-6.79	105.14	116.00
5	A	1658	G	P-O3'-C3'	6.79	127.85	119.70
6	B	98	G	C5-C6-O6	-6.79	124.53	128.60
6	B	114	A	C5-C6-N1	-6.79	114.31	117.70
5	A	487	G	C5-C6-O6	-6.79	124.53	128.60
5	A	789	C	N3-C4-C5	-6.79	119.19	121.90
5	A	922	A	C5-C6-N6	-6.79	118.27	123.70
5	A	2383	A	C4-C5-C6	6.79	120.39	117.00
5	A	2738	G	O4'-C1'-N9	6.79	113.63	108.20
5	A	2281	G	C5-C6-O6	-6.78	124.53	128.60
5	A	1407	G	C5-C6-O6	-6.78	124.53	128.60
5	A	1955	U	O4'-C1'-N1	6.78	113.63	108.20
5	A	1980	U	O4'-C1'-N1	6.78	113.62	108.20
5	A	156	A	C5-C6-N6	-6.78	118.28	123.70
5	A	1655	A	C5-C6-N6	-6.78	118.28	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2732	C	N3-C4-N4	6.78	122.75	118.00
5	A	600	A	C5-C6-N6	-6.78	118.28	123.70
5	A	1100	A	C4-C5-C6	6.78	120.39	117.00
5	A	2181	C	N3-C4-N4	6.78	122.75	118.00
5	A	631	G	C5-C6-O6	-6.78	124.53	128.60
5	A	1572	G	C5-C6-O6	-6.78	124.53	128.60
5	A	1598	C	N3-C4-N4	6.78	122.75	118.00
5	A	1619	A	O4'-C1'-N9	6.78	113.62	108.20
5	A	153	C	C2-N1-C1'	6.78	126.25	118.80
5	A	1571	G	O4'-C1'-N9	6.78	113.62	108.20
5	A	1681	U	O4'-C1'-N1	6.78	113.62	108.20
5	A	2177	G	C5-C6-O6	-6.78	124.53	128.60
5	A	2572	G	O4'-C1'-N9	6.78	113.62	108.20
5	A	2913	U	O4'-C1'-N1	6.78	113.62	108.20
5	A	562	C	N3-C4-N4	6.77	122.74	118.00
5	A	569	C	N3-C4-N4	6.77	122.74	118.00
5	A	1276	G	C5-C6-O6	-6.77	124.54	128.60
5	A	2577	G	O4'-C1'-N9	6.77	113.62	108.20
5	A	1540	A	C4-C5-C6	6.77	120.38	117.00
6	B	102	A	C4-C5-C6	6.77	120.39	117.00
5	A	102	A	C4-C5-C6	6.77	120.38	117.00
5	A	701	G	C5-C6-O6	-6.77	124.54	128.60
5	A	811	A	C4-C5-C6	6.77	120.38	117.00
5	A	1577	C	N3-C4-C5	-6.77	119.19	121.90
5	A	1718	G	C5-C6-O6	-6.77	124.54	128.60
5	A	2227	A	C4-C5-C6	6.77	120.38	117.00
5	A	224	A	C4-C5-C6	6.77	120.38	117.00
5	A	361	G	C5-C6-O6	-6.77	124.54	128.60
5	A	69	C	O4'-C1'-N1	6.76	113.61	108.20
5	A	2525	C	P-O3'-C3'	6.76	127.82	119.70
5	A	905	G	C5-C6-O6	-6.76	124.54	128.60
5	A	1185	G	C5-C6-O6	-6.76	124.54	128.60
5	A	1424	A	C4-C5-C6	6.76	120.38	117.00
5	A	1781	C	P-O3'-C3'	-6.76	111.59	119.70
5	A	2506	C	P-O5'-C5'	-6.76	110.08	120.90
5	A	135	U	O4'-C1'-N1	6.76	113.61	108.20
5	A	1521	G	C5-C6-O6	-6.76	124.54	128.60
5	A	2058	G	O4'-C1'-N9	6.76	113.61	108.20
6	B	104	G	C5-C6-O6	-6.76	124.55	128.60
5	A	2439	G	O4'-C1'-N9	6.76	113.61	108.20
5	A	2924	A	C5-C6-N6	-6.76	118.29	123.70
5	A	1201	A	C4-C5-C6	6.76	120.38	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1858	A	C5-C6-N6	-6.76	118.30	123.70
5	A	2605	G	P-O3'-C3'	6.76	127.81	119.70
5	A	682	G	O4'-C1'-N9	6.75	113.60	108.20
5	A	1068	G	O4'-C1'-N9	6.75	113.60	108.20
5	A	1280	G	C5-C6-O6	-6.75	124.55	128.60
5	A	1778	A	C5-C6-N1	-6.75	114.32	117.70
5	A	578	A	C4-C5-C6	6.75	120.38	117.00
5	A	1371	G	C5-C6-O6	-6.75	124.55	128.60
5	A	849	A	C4-C5-C6	6.75	120.38	117.00
5	A	1505	U	O4'-C1'-N1	6.75	113.60	108.20
5	A	2015	G	C5-C6-O6	-6.75	124.55	128.60
5	A	2556	C	O4'-C1'-N1	6.75	113.60	108.20
5	A	497	G	C5-C6-O6	-6.75	124.55	128.60
5	A	575	A	P-O3'-C3'	6.75	127.80	119.70
5	A	928	G	C5-C6-O6	-6.75	124.55	128.60
5	A	1356	G	C5-C6-O6	-6.75	124.55	128.60
5	A	1544	C	C5-C4-N4	-6.75	115.47	120.20
5	A	2887	A	O4'-C1'-N9	6.75	113.60	108.20
5	A	306	C	N3-C4-N4	6.75	122.72	118.00
5	A	749	G	C5-C6-O6	-6.75	124.55	128.60
5	A	1208	G	O4'-C1'-N9	6.75	113.60	108.20
5	A	35	G	C5-C6-O6	-6.75	124.55	128.60
5	A	116	G	C5-C6-O6	-6.75	124.55	128.60
5	A	958	A	O4'-C1'-N9	6.75	113.60	108.20
5	A	1109	G	O4'-C1'-N9	6.75	113.60	108.20
5	A	1748	G	C5-C6-O6	-6.75	124.55	128.60
5	A	1810	G	C5-C6-O6	-6.75	124.55	128.60
5	A	2096	G	C5-C6-O6	-6.75	124.55	128.60
5	A	166	A	C4-C5-C6	6.75	120.37	117.00
5	A	632	U	O4'-C1'-N1	6.75	113.60	108.20
5	A	665	G	C5-C6-O6	-6.75	124.55	128.60
5	A	124	A	O4'-C1'-N9	6.74	113.59	108.20
5	A	404	C	N3-C4-N4	6.74	122.72	118.00
5	A	1594	G	C5-C6-O6	-6.74	124.55	128.60
5	A	2112	G	C5-C6-O6	-6.74	124.55	128.60
6	B	46	A	C5-C6-N6	-6.74	118.31	123.70
5	A	1204	C	N3-C4-N4	6.74	122.72	118.00
5	A	2480	A	O4'-C1'-N9	6.74	113.59	108.20
5	A	2691	A	C4-C5-C6	6.74	120.37	117.00
5	A	2828	G	O4'-C1'-N9	6.74	113.59	108.20
5	A	2873	G	C5-C6-O6	-6.74	124.56	128.60
5	A	721	G	O4'-C1'-N9	6.74	113.59	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1242	U	O4'-C1'-N1	6.74	113.59	108.20
5	A	1726	G	C5-C6-O6	-6.74	124.56	128.60
5	A	2169	G	C5-C6-O6	-6.74	124.56	128.60
5	A	2738	G	C5-C6-O6	-6.74	124.56	128.60
5	A	414	C	P-O3'-C3'	6.74	127.78	119.70
5	A	938	G	O4'-C1'-N9	6.74	113.59	108.20
5	A	1740	G	O4'-C1'-N9	6.73	113.59	108.20
5	A	1787	G	C5-C6-O6	-6.73	124.56	128.60
5	A	221	G	C5-C6-O6	-6.73	124.56	128.60
5	A	1278	G	C5-C6-O6	-6.73	124.56	128.60
5	A	1516	A	C4-C5-C6	6.73	120.37	117.00
5	A	1160	G	O4'-C1'-N9	6.73	113.58	108.20
5	A	1928	A	C5-C6-N6	-6.73	118.32	123.70
5	A	2118	U	O4'-C1'-N1	6.73	113.58	108.20
5	A	2336	G	O4'-C1'-N9	6.73	113.58	108.20
5	A	2786	A	C4-C5-C6	6.73	120.36	117.00
5	A	2299	G	C5-C6-O6	-6.73	124.56	128.60
5	A	2820	U	C2-N1-C1'	6.73	125.77	117.70
5	A	2895	C	N3-C4-N4	6.73	122.71	118.00
5	A	1499	A	C4-C5-C6	6.73	120.36	117.00
5	A	2064	G	C5-C6-O6	-6.73	124.56	128.60
5	A	2719	A	P-O5'-C5'	6.73	131.66	120.90
5	A	396	G	P-O5'-C5'	6.72	131.66	120.90
5	A	896	A	C4-C5-C6	6.72	120.36	117.00
5	A	1024	G	C5-C6-O6	-6.72	124.57	128.60
5	A	1633	G	C5-C6-O6	-6.72	124.57	128.60
5	A	1863	U	O4'-C1'-N1	6.72	113.58	108.20
5	A	51	G	C5-C6-O6	-6.72	124.57	128.60
5	A	1678	G	C5-C6-O6	-6.72	124.57	128.60
5	A	2026	A	C4-C5-C6	6.72	120.36	117.00
5	A	2398	A	C5-C6-N6	-6.72	118.32	123.70
6	B	101	U	O4'-C1'-N1	6.72	113.58	108.20
5	A	800	G	O4'-C1'-N9	6.72	113.58	108.20
5	A	1682	C	O4'-C1'-N1	6.72	113.58	108.20
5	A	1743	A	O4'-C1'-N9	6.72	113.58	108.20
5	A	976	U	C6-N1-C1'	-6.72	111.79	121.20
5	A	1686	A	C4-C5-C6	6.72	120.36	117.00
5	A	2027	A	C5-C6-N1	-6.72	114.34	117.70
5	A	192	G	C5-C6-O6	-6.72	124.57	128.60
5	A	229	A	C5-C6-N6	-6.72	118.33	123.70
5	A	1961	A	C5-C6-N6	-6.72	118.33	123.70
5	A	2547	A	C4-C5-C6	6.72	120.36	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	250	G	O4'-C1'-N9	6.71	113.57	108.20
5	A	319	G	C5-C6-O6	-6.71	124.57	128.60
5	A	1020	A	O4'-C1'-N9	6.71	113.57	108.20
5	A	2109	G	C5-C6-O6	-6.71	124.57	128.60
5	A	2627	A	C5-C6-N1	-6.71	114.34	117.70
5	A	2376	C	N3-C4-N4	6.71	122.70	118.00
5	A	60	G	C5-C6-O6	-6.71	124.57	128.60
5	A	783	C	N3-C4-C5	-6.71	119.22	121.90
5	A	1488	G	C5-C6-O6	-6.71	124.57	128.60
5	A	1603	U	O4'-C1'-N1	6.71	113.57	108.20
5	A	2280	G	C5-C6-O6	-6.71	124.57	128.60
5	A	2348	C	O4'-C1'-N1	6.71	113.57	108.20
5	A	985	G	C5-C6-O6	-6.71	124.57	128.60
5	A	1449	C	C6-N1-C2	-6.71	117.62	120.30
5	A	1671	G	C5-C6-O6	-6.71	124.58	128.60
5	A	1843	G	C5-C6-O6	-6.71	124.58	128.60
5	A	2135	G	C5-C6-O6	-6.71	124.58	128.60
5	A	2186	G	C5-C6-O6	-6.71	124.58	128.60
5	A	2306	G	C5-C6-O6	-6.71	124.58	128.60
5	A	2465	G	O4'-C1'-N9	6.71	113.57	108.20
5	A	316	G	N1-C6-O6	6.71	123.92	119.90
5	A	486	A	O4'-C1'-N9	6.71	113.57	108.20
5	A	722	A	C4-C5-C6	6.71	120.35	117.00
5	A	1036	A	C4-C5-C6	6.71	120.35	117.00
5	A	1749	G	O4'-C1'-N9	6.71	113.56	108.20
5	A	1831	A	C5-C6-N1	-6.71	114.35	117.70
5	A	2606	A	C4-C5-C6	6.71	120.35	117.00
6	B	87	U	C2-N1-C1'	6.71	125.75	117.70
5	A	89	U	C2-N3-C4	-6.71	122.98	127.00
5	A	376	A	P-O3'-C3'	6.71	127.75	119.70
5	A	522	U	P-O5'-C5'	6.71	131.63	120.90
5	A	755	U	O4'-C1'-N1	6.71	113.56	108.20
5	A	1859	C	P-O5'-C5'	6.71	131.63	120.90
5	A	1963	C	O4'-C1'-N1	6.71	113.56	108.20
5	A	2734	A	C4-C5-C6	6.71	120.35	117.00
5	A	1611	G	C5-C6-O6	-6.70	124.58	128.60
5	A	614	G	C5-C6-O6	-6.70	124.58	128.60
5	A	2727	U	O4'-C1'-N1	6.70	113.56	108.20
5	A	643	U	O4'-C1'-N1	6.70	113.56	108.20
5	A	1384	C	O4'-C1'-N1	6.70	113.56	108.20
5	A	1771	C	N3-C4-N4	6.70	122.69	118.00
5	A	1836	G	C5-C6-O6	-6.70	124.58	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2252	A	O4'-C1'-N9	6.70	113.56	108.20
5	A	2437	U	P-O5'-C5'	6.70	131.62	120.90
5	A	1977	G	O4'-C1'-N9	6.70	113.56	108.20
5	A	2106	A	C4-C5-C6	6.70	120.35	117.00
5	A	1312	A	C4-C5-C6	6.69	120.35	117.00
5	A	184	G	C5-C6-O6	-6.69	124.58	128.60
5	A	2191	A	O4'-C1'-N9	6.69	113.55	108.20
5	A	2424	C	P-O3'-C3'	6.69	127.73	119.70
5	A	2039	G	C5-C6-O6	-6.69	124.58	128.60
5	A	2690	G	C5-C6-O6	-6.69	124.59	128.60
5	A	640	C	N3-C4-N4	6.69	122.68	118.00
5	A	753	A	C5-C6-N6	-6.69	118.35	123.70
5	A	780	G	O4'-C1'-N9	6.69	113.55	108.20
5	A	1617	A	O4'-C1'-N9	6.69	113.55	108.20
5	A	2316	A	P-O3'-C3'	6.69	127.72	119.70
5	A	2496	C	O4'-C1'-N1	6.69	113.55	108.20
5	A	721	G	C5-C6-O6	-6.68	124.59	128.60
5	A	1058	U	O4'-C1'-N1	6.68	113.55	108.20
5	A	1156	G	C5-C6-O6	-6.68	124.59	128.60
5	A	1157	A	P-O3'-C3'	6.68	127.72	119.70
5	A	1416	G	P-O5'-C5'	6.68	131.59	120.90
5	A	1475	G	O4'-C1'-N9	6.68	113.55	108.20
5	A	1764	U	O4'-C1'-N1	6.68	113.55	108.20
5	A	2410	C	N3-C4-N4	6.68	122.68	118.00
5	A	2900	A	C5-C6-N1	-6.68	114.36	117.70
5	A	110	A	O4'-C1'-N9	6.68	113.55	108.20
5	A	1959	G	C5-C6-O6	-6.68	124.59	128.60
5	A	912	C	O4'-C1'-N1	6.68	113.54	108.20
5	A	1811	C	O4'-C1'-N1	6.68	113.54	108.20
5	A	2352	G	O4'-C1'-N9	6.68	113.54	108.20
5	A	2403	C	N3-C4-N4	6.68	122.67	118.00
5	A	216	A	C4-C5-C6	6.68	120.34	117.00
5	A	1213	G	C5-C6-O6	-6.68	124.59	128.60
5	A	2333	G	C5-C6-O6	-6.68	124.59	128.60
5	A	2889	A	C5-C6-N6	-6.68	118.36	123.70
5	A	2145	G	C5-C6-O6	-6.67	124.60	128.60
5	A	393	U	O4'-C1'-N1	6.67	113.54	108.20
5	A	2531	G	C5-C6-O6	-6.67	124.60	128.60
5	A	2889	A	C5-C6-N1	-6.67	114.36	117.70
5	A	190	G	C5-C6-O6	-6.67	124.60	128.60
5	A	2157	C	O4'-C1'-N1	6.67	113.54	108.20
5	A	2684	G	C5-C6-O6	-6.67	124.60	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	644	G	O4'-C1'-N9	6.67	113.53	108.20
5	A	2240	U	O4'-C1'-N1	6.67	113.53	108.20
5	A	2777	A	C4-C5-C6	6.67	120.33	117.00
5	A	227	G	N1-C6-O6	6.67	123.90	119.90
5	A	1768	A	C4-C5-C6	6.67	120.33	117.00
5	A	2582	G	C5-C6-O6	-6.67	124.60	128.60
5	A	2743	G	C5-C6-O6	-6.67	124.60	128.60
6	B	22	G	C5-C6-O6	-6.67	124.60	128.60
5	A	2349	A	P-O3'-C3'	6.67	127.70	119.70
5	A	1234	G	C5-C6-O6	-6.66	124.60	128.60
5	A	1415	C	N3-C4-N4	6.66	122.67	118.00
5	A	1569	A	O4'-C1'-N9	6.66	113.53	108.20
5	A	2919	A	O4'-C1'-N9	6.66	113.53	108.20
5	A	161	A	C5-C6-N1	-6.66	114.37	117.70
5	A	1382	G	O4'-C1'-N9	6.66	113.53	108.20
5	A	2884	G	C5-C6-O6	-6.66	124.60	128.60
5	A	414	C	N3-C4-N4	6.66	122.66	118.00
5	A	714	U	O4'-C1'-N1	6.66	113.53	108.20
5	A	1443	C	N3-C4-N4	6.66	122.66	118.00
5	A	2874	G	C5-C6-O6	-6.66	124.60	128.60
5	A	377	G	C5-C6-O6	-6.66	124.61	128.60
5	A	907	U	C2-N1-C1'	6.66	125.69	117.70
5	A	2811	G	C5-C6-O6	-6.66	124.61	128.60
5	A	2917	G	C5-C6-O6	-6.66	124.61	128.60
5	A	499	G	C5-C6-O6	-6.66	124.61	128.60
5	A	519	A	C4-C5-C6	6.66	120.33	117.00
5	A	732	A	P-O3'-C3'	6.66	127.69	119.70
5	A	1073	A	C4-C5-C6	6.66	120.33	117.00
5	A	2336	G	C5-C6-O6	-6.66	124.61	128.60
5	A	2479	A	C5-C6-N6	-6.66	118.37	123.70
5	A	374	A	C4-C5-C6	6.66	120.33	117.00
5	A	1071	G	C5-C6-O6	-6.66	124.61	128.60
5	A	1285	G	C5-C6-O6	-6.66	124.61	128.60
5	A	2273	U	O4'-C1'-N1	6.66	113.52	108.20
5	A	2377	U	C2-N3-C4	-6.66	123.01	127.00
5	A	1235	A	C5-C6-N6	-6.65	118.38	123.70
5	A	1699	A	C4-C5-C6	6.65	120.33	117.00
5	A	1512	G	O4'-C1'-N9	6.65	113.52	108.20
5	A	12	A	C4-C5-C6	6.65	120.33	117.00
5	A	629	G	C5-C6-O6	-6.65	124.61	128.60
5	A	1188	A	O4'-C1'-N9	6.65	113.52	108.20
5	A	2311	G	C5-C6-O6	-6.65	124.61	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2450	G	C5-C6-O6	-6.65	124.61	128.60
5	A	1030	G	C5-C6-O6	-6.65	124.61	128.60
5	A	1259	G	C5-C6-O6	-6.65	124.61	128.60
5	A	1300	G	O4'-C1'-N9	6.65	113.52	108.20
5	A	1830	G	C5-C6-O6	-6.65	124.61	128.60
5	A	2297	A	C5-C6-N1	-6.65	114.38	117.70
5	A	2835	A	C4-C5-C6	6.65	120.32	117.00
5	A	42	G	O4'-C1'-N9	6.65	113.52	108.20
5	A	1042	A	C5-C6-N1	-6.65	114.38	117.70
5	A	2440	A	C5-C6-N6	-6.64	118.38	123.70
5	A	2665	U	O4'-C1'-N1	6.64	113.52	108.20
6	B	69	C	N3-C4-N4	6.64	122.65	118.00
5	A	500	A	O4'-C1'-N9	6.64	113.52	108.20
5	A	550	G	C5-C6-O6	-6.64	124.61	128.60
5	A	773	G	C5-C6-O6	-6.64	124.61	128.60
5	A	1805	G	O4'-C1'-N9	6.64	113.51	108.20
5	A	2524	G	O4'-C1'-N9	6.64	113.51	108.20
5	A	2739	C	N3-C4-N4	6.64	122.65	118.00
5	A	2339	A	O4'-C1'-N9	6.64	113.51	108.20
5	A	2764	G	O4'-C1'-N9	6.64	113.51	108.20
5	A	64	A	C4-C5-C6	6.64	120.32	117.00
5	A	1029	A	C4-C5-C6	6.64	120.32	117.00
5	A	2467	U	O4'-C1'-N1	6.64	113.51	108.20
5	A	2615	C	O4'-C1'-N1	6.64	113.51	108.20
5	A	145	G	C5-C6-O6	-6.64	124.62	128.60
5	A	1280	G	N1-C2-N3	-6.64	119.92	123.90
5	A	2350	G	C4-N9-C1'	6.64	135.13	126.50
6	B	36	C	N3-C4-N4	6.64	122.65	118.00
5	A	540	G	C5-C6-O6	-6.64	124.62	128.60
5	A	746	A	O4'-C1'-N9	6.64	113.51	108.20
5	A	1088	G	C5-C6-O6	-6.64	124.62	128.60
5	A	1181	C	O4'-C1'-N1	6.64	113.51	108.20
5	A	2112	G	O4'-C1'-N9	6.64	113.51	108.20
5	A	2688	G	C5-C6-O6	-6.64	124.62	128.60
5	A	1488	G	O4'-C1'-N9	6.63	113.51	108.20
5	A	1512	G	C5-C6-O6	-6.63	124.62	128.60
5	A	2041	G	C5-C6-O6	-6.63	124.62	128.60
5	A	2181	C	O4'-C1'-N1	6.63	113.51	108.20
5	A	2360	G	C5-C6-O6	-6.63	124.62	128.60
5	A	1422	C	O4'-C1'-N1	6.63	113.51	108.20
5	A	2885	A	C5-C6-N6	-6.63	118.39	123.70
5	A	708	U	O4'-C1'-N1	6.63	113.51	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	922	A	C4-C5-C6	6.63	120.32	117.00
5	A	1115	A	C5-C6-N1	-6.63	114.38	117.70
5	A	2852	U	O4'-C1'-N1	6.63	113.51	108.20
5	A	58	G	C5-C6-O6	-6.63	124.62	128.60
5	A	1536	A	C4-C5-C6	6.63	120.31	117.00
5	A	1682	C	N3-C4-N4	6.63	122.64	118.00
5	A	2139	G	C5-C6-O6	-6.63	124.62	128.60
5	A	2209	U	O4'-C1'-N1	6.63	113.50	108.20
5	A	430	C	O4'-C1'-N1	6.63	113.50	108.20
5	A	1964	G	C5-C6-O6	-6.63	124.62	128.60
5	A	2768	U	O4'-C1'-N1	6.63	113.50	108.20
5	A	948	A	C5-C6-N6	-6.63	118.40	123.70
5	A	1335	A	O4'-C1'-N9	6.63	113.50	108.20
5	A	1561	G	C5-C6-O6	-6.63	124.62	128.60
5	A	2380	G	C5-C6-O6	-6.63	124.62	128.60
5	A	2919	A	C5-C6-N6	-6.62	118.40	123.70
5	A	2923	A	C4-C5-C6	6.62	120.31	117.00
5	A	607	G	O4'-C1'-N9	6.62	113.50	108.20
5	A	644	G	C5-C6-O6	-6.62	124.63	128.60
5	A	2693	G	C5-C6-O6	-6.62	124.63	128.60
5	A	2809	G	C5-C6-O6	-6.62	124.63	128.60
5	A	661	A	C4-C5-C6	6.62	120.31	117.00
5	A	952	A	O4'-C1'-N9	6.62	113.50	108.20
5	A	1301	U	O4'-C1'-N1	6.62	113.50	108.20
6	B	70	G	C5-C6-O6	-6.62	124.63	128.60
5	A	2637	G	C5-C6-O6	-6.62	124.63	128.60
5	A	535	G	C5-C6-O6	-6.62	124.63	128.60
5	A	688	G	C5-C6-O6	-6.62	124.63	128.60
5	A	2256	A	C4-C5-C6	6.62	120.31	117.00
5	A	2853	C	N3-C4-C5	-6.62	119.25	121.90
5	A	1372	C	O4'-C1'-N1	6.62	113.49	108.20
5	A	80	G	C5-C6-O6	-6.62	124.63	128.60
5	A	302	A	C5-C6-N6	-6.62	118.41	123.70
5	A	459	A	C4-C5-C6	6.62	120.31	117.00
5	A	1371	G	O4'-C1'-N9	6.62	113.49	108.20
5	A	2687	C	N3-C4-N4	6.62	122.63	118.00
6	B	96	G	O4'-C1'-N9	6.62	113.49	108.20
5	A	256	C	N3-C4-N4	6.61	122.63	118.00
5	A	536	G	O4'-C1'-N9	6.61	113.49	108.20
5	A	882	A	O4'-C1'-N9	6.61	113.49	108.20
5	A	1554	U	O4'-C1'-N1	6.61	113.49	108.20
5	A	1586	G	C1'-O4'-C4'	-6.61	104.61	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1702	U	O4'-C1'-N1	6.61	113.49	108.20
5	A	2287	C	N3-C4-N4	6.61	122.63	118.00
5	A	2300	G	O4'-C1'-N9	6.61	113.49	108.20
5	A	2404	G	C5-C6-O6	-6.61	124.63	128.60
5	A	1478	G	O4'-C1'-N9	6.61	113.49	108.20
5	A	1967	A	C4-C5-C6	6.61	120.30	117.00
5	A	890	G	C5-C6-O6	-6.61	124.64	128.60
5	A	2033	G	C5-C6-O6	-6.61	124.64	128.60
5	A	2254	A	C5-C6-N1	-6.61	114.40	117.70
5	A	2647	G	C5-C6-O6	-6.61	124.64	128.60
5	A	1157	A	O4'-C1'-N9	6.61	113.48	108.20
5	A	1845	A	O4'-C1'-N9	6.61	113.48	108.20
5	A	2241	A	O4'-C1'-N9	6.61	113.48	108.20
5	A	2300	G	C5-C6-O6	-6.61	124.64	128.60
5	A	1872	C	N3-C4-N4	6.60	122.62	118.00
5	A	1325	A	P-O3'-C3'	6.60	127.62	119.70
5	A	1524	A	C4-C5-C6	6.60	120.30	117.00
5	A	2066	A	O4'-C1'-N9	6.60	113.48	108.20
5	A	2267	G	C5-C6-O6	-6.60	124.64	128.60
5	A	1606	A	C5-C6-N6	-6.60	118.42	123.70
5	A	1957	A	C4-C5-C6	6.60	120.30	117.00
5	A	2875	A	C4-C5-C6	6.60	120.30	117.00
5	A	358	C	N3-C4-N4	6.60	122.62	118.00
5	A	767	U	O4'-C1'-N1	6.60	113.48	108.20
5	A	776	G	C5-C6-O6	-6.60	124.64	128.60
5	A	2672	G	O4'-C1'-N9	6.60	113.48	108.20
5	A	2782	A	C4-C5-C6	6.60	120.30	117.00
5	A	2358	A	O4'-C1'-N9	6.60	113.48	108.20
5	A	580	U	O4'-C1'-N1	6.59	113.48	108.20
5	A	1252	G	C5-C6-O6	-6.59	124.64	128.60
5	A	1487	G	P-O5'-C5'	6.59	131.45	120.90
5	A	2198	G	O4'-C1'-N9	6.59	113.48	108.20
6	B	96	G	C5-C6-O6	-6.59	124.64	128.60
5	A	333	A	O4'-C1'-N9	6.59	113.47	108.20
5	A	220	A	O4'-C1'-N9	6.59	113.47	108.20
5	A	1399	G	C5-C6-O6	-6.59	124.64	128.60
5	A	1663	A	C4-C5-C6	6.59	120.30	117.00
5	A	2703	G	C5-C6-O6	-6.59	124.64	128.60
5	A	781	A	C5-C6-N6	-6.59	118.43	123.70
5	A	1864	G	C5-C6-O6	-6.59	124.65	128.60
5	A	378	C	N3-C4-C5	-6.59	119.27	121.90
5	A	716	G	C5-C6-O6	-6.59	124.65	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	956	A	O4'-C1'-N9	6.59	113.47	108.20
5	A	524	A	C4-C5-C6	6.59	120.29	117.00
5	A	2129	G	P-O3'-C3'	6.59	127.60	119.70
5	A	2185	G	C5-C6-O6	-6.59	124.65	128.60
5	A	2857	U	C5'-C4'-O4'	6.59	117.00	109.10
5	A	546	G	C5-C6-O6	-6.58	124.65	128.60
5	A	1475	G	C5-C6-O6	-6.58	124.65	128.60
5	A	2279	G	C5-C6-O6	-6.58	124.65	128.60
5	A	868	A	O4'-C1'-N9	6.58	113.47	108.20
5	A	1085	G	O4'-C1'-N9	6.58	113.47	108.20
5	A	1556	A	C4-C5-C6	6.58	120.29	117.00
5	A	1586	G	O4'-C1'-N9	6.58	113.47	108.20
5	A	1621	G	O4'-C1'-N9	6.58	113.47	108.20
6	B	29	C	N3-C4-N4	6.58	122.61	118.00
5	A	253	G	O4'-C1'-N9	6.58	113.46	108.20
5	A	1006	A	C5-C6-N1	-6.58	114.41	117.70
5	A	2282	G	C5-C6-O6	-6.58	124.65	128.60
5	A	2663	A	C5-C6-N6	-6.58	118.44	123.70
5	A	571	U	O4'-C1'-N1	6.58	113.46	108.20
5	A	1506	A	C4-C5-C6	6.58	120.29	117.00
5	A	2910	C	N3-C4-N4	6.58	122.61	118.00
6	B	44	A	C5-C6-N6	-6.58	118.44	123.70
5	A	48	G	C5-C6-O6	-6.58	124.65	128.60
5	A	56	A	O4'-C1'-N9	6.58	113.46	108.20
5	A	1310	C	P-O3'-C3'	6.58	127.59	119.70
5	A	2883	C	C6-N1-C1'	-6.58	112.91	120.80
5	A	1516	A	C5-C6-N1	-6.58	114.41	117.70
5	A	1714	A	C4-C5-C6	6.58	120.29	117.00
5	A	1935	G	C5-C6-O6	-6.58	124.66	128.60
5	A	2611	G	C5-C6-O6	-6.58	124.65	128.60
5	A	2726	G	C5-C6-O6	-6.58	124.66	128.60
5	A	2847	G	C5-C6-O6	-6.58	124.65	128.60
5	A	184	G	O4'-C1'-N9	6.57	113.46	108.20
5	A	547	A	C4-C5-C6	6.57	120.29	117.00
5	A	2270	A	O4'-C1'-N9	6.57	113.46	108.20
5	A	1071	G	O4'-C1'-N9	6.57	113.46	108.20
5	A	2098	G	C5-C6-O6	-6.57	124.66	128.60
5	A	2232	G	C5-C6-O6	-6.57	124.66	128.60
5	A	2485	C	N3-C4-N4	6.57	122.60	118.00
6	B	13	A	C4-C5-C6	6.57	120.29	117.00
20	S	41	ARG	N-CA-CB	6.57	122.43	110.60
5	A	312	G	C5-C6-O6	-6.57	124.66	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	963	G	C5-C6-O6	-6.57	124.66	128.60
5	A	964	A	C4-C5-C6	6.57	120.28	117.00
5	A	1609	C	N3-C4-C5	-6.57	119.27	121.90
5	A	2093	C	N3-C4-C5	-6.57	119.27	121.90
5	A	84	A	O4'-C1'-N9	6.57	113.45	108.20
5	A	2670	A	C5-C6-N1	-6.57	114.42	117.70
5	A	463	U	O4'-C1'-N1	6.57	113.45	108.20
5	A	510	G	C5-C6-O6	-6.57	124.66	128.60
5	A	575	A	C4-C5-C6	6.57	120.28	117.00
5	A	772	G	C5-C6-O6	-6.57	124.66	128.60
5	A	873	U	O4'-C1'-N1	6.57	113.45	108.20
5	A	1286	A	C5-C6-N1	-6.57	114.42	117.70
5	A	1290	G	C5-C6-O6	-6.57	124.66	128.60
5	A	1359	G	C5-C6-O6	-6.57	124.66	128.60
5	A	2493	C	O4'-C1'-N1	6.57	113.45	108.20
5	A	2597	C	N3-C4-N4	6.57	122.60	118.00
5	A	1084	A	C4-C5-C6	6.56	120.28	117.00
5	A	1192	G	C5-C6-O6	-6.56	124.66	128.60
5	A	1245	G	O4'-C1'-N9	6.56	113.45	108.20
5	A	1292	G	C5-C6-O6	-6.56	124.66	128.60
5	A	1838	A	C5-C6-N6	-6.56	118.45	123.70
5	A	1964	G	O4'-C1'-N9	6.56	113.45	108.20
5	A	2805	A	C4-C5-C6	6.56	120.28	117.00
5	A	2824	G	O4'-C1'-N9	6.56	113.45	108.20
5	A	1984	U	O4'-C1'-N1	6.56	113.45	108.20
5	A	341	G	C5-C6-O6	-6.56	124.66	128.60
5	A	1774	A	C5-C6-N6	-6.56	118.45	123.70
5	A	2085	G	C5-C6-O6	-6.56	124.66	128.60
5	A	2598	G	C5-C6-O6	-6.56	124.66	128.60
5	A	935	A	C4-C5-C6	6.56	120.28	117.00
5	A	1050	U	O4'-C1'-N1	6.56	113.45	108.20
5	A	1378	G	C5-C6-O6	-6.56	124.67	128.60
5	A	1813	A	C4-C5-C6	6.56	120.28	117.00
5	A	223	G	C5-C6-O6	-6.56	124.67	128.60
5	A	493	G	C5-C6-O6	-6.56	124.67	128.60
5	A	2019	C	N3-C4-C5	-6.56	119.28	121.90
5	A	454	G	C5-C6-O6	-6.55	124.67	128.60
5	A	475	A	C4-C5-C6	6.55	120.28	117.00
5	A	1030	G	O4'-C1'-N9	6.55	113.44	108.20
5	A	1103	A	C5-C6-N6	-6.55	118.46	123.70
5	A	1276	G	O4'-C1'-N9	6.55	113.44	108.20
5	A	2352	G	C5-C6-O6	-6.55	124.67	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2495	C	N3-C4-N4	6.55	122.59	118.00
6	B	103	G	O4'-C1'-N9	6.55	113.44	108.20
5	A	658	A	C4-C5-C6	6.55	120.28	117.00
5	A	2394	G	C5-C6-O6	-6.55	124.67	128.60
5	A	307	A	C5-C6-N6	-6.55	118.46	123.70
5	A	357	G	O4'-C1'-N9	6.55	113.44	108.20
5	A	1748	G	O4'-C1'-N9	6.55	113.44	108.20
5	A	2477	A	C4-C5-C6	6.55	120.28	117.00
5	A	2667	G	C5-C6-O6	-6.55	124.67	128.60
5	A	2740	A	C5-C6-N6	-6.55	118.46	123.70
5	A	2824	G	C5-C6-O6	-6.55	124.67	128.60
5	A	396	G	C5-C6-O6	-6.55	124.67	128.60
5	A	1002	G	C5-C6-O6	-6.55	124.67	128.60
5	A	1484	U	O4'-C1'-N1	6.55	113.44	108.20
5	A	1600	G	C5-C6-O6	-6.55	124.67	128.60
6	B	118	A	C4-C5-C6	6.55	120.27	117.00
5	A	669	C	P-O5'-C5'	6.55	131.38	120.90
5	A	1641	U	O4'-C1'-N1	6.55	113.44	108.20
5	A	906	G	C5-C6-O6	-6.55	124.67	128.60
5	A	1812	A	O4'-C1'-N9	6.55	113.44	108.20
5	A	1989	A	C5-C6-N1	-6.55	114.43	117.70
5	A	1247	G	C5-C6-O6	-6.54	124.67	128.60
5	A	1815	A	O4'-C1'-N9	6.54	113.44	108.20
5	A	2436	A	C5-C6-N6	-6.54	118.46	123.70
5	A	1576	G	O4'-C1'-N9	6.54	113.44	108.20
5	A	2407	A	C4-C5-C6	6.54	120.27	117.00
5	A	1509	C	O4'-C1'-N1	6.54	113.43	108.20
5	A	1667	A	C4-C5-C6	6.54	120.27	117.00
5	A	1750	G	C5-C6-O6	-6.54	124.67	128.60
5	A	1832	A	C5-C6-N6	-6.54	118.47	123.70
5	A	2514	G	O4'-C1'-N9	6.54	113.43	108.20
5	A	2588	C	N3-C4-N4	6.54	122.58	118.00
5	A	2629	A	O4'-C1'-N9	6.54	113.43	108.20
5	A	2915	G	N1-C6-O6	6.54	123.83	119.90
5	A	727	A	O4'-C1'-N9	6.54	113.43	108.20
5	A	321	U	C5'-C4'-C3'	-6.54	105.54	116.00
5	A	1986	C	O4'-C1'-N1	6.54	113.43	108.20
5	A	2439	G	C5-C6-O6	-6.54	124.68	128.60
5	A	526	A	C5-C6-N6	-6.54	118.47	123.70
5	A	2603	G	C5-C6-O6	-6.53	124.68	128.60
5	A	2802	U	O4'-C1'-N1	6.53	113.43	108.20
5	A	1171	G	C5-C6-O6	-6.53	124.68	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1470	G	C5-C6-O6	-6.53	124.68	128.60
5	A	2241	A	C4-C5-C6	6.53	120.27	117.00
5	A	2873	G	O4'-C1'-N9	6.53	113.43	108.20
5	A	1288	G	C5-C6-O6	-6.53	124.68	128.60
5	A	1742	G	C5-C6-O6	-6.53	124.68	128.60
5	A	1796	C	N3-C4-N4	6.53	122.57	118.00
5	A	2558	G	C5-C6-O6	-6.53	124.68	128.60
5	A	1848	A	C4-C5-C6	6.53	120.27	117.00
5	A	2081	G	O4'-C1'-N9	6.53	113.42	108.20
5	A	270	C	N3-C4-N4	6.53	122.57	118.00
5	A	767	U	P-O5'-C5'	6.53	131.34	120.90
5	A	1239	U	O4'-C1'-N1	6.53	113.42	108.20
5	A	1253	A	C5-C6-N1	-6.53	114.44	117.70
5	A	1921	C	C2-N1-C1'	6.53	125.98	118.80
5	A	2111	A	O4'-C1'-N9	6.53	113.42	108.20
5	A	2397	C	N3-C4-N4	6.53	122.57	118.00
5	A	2172	C	O4'-C1'-N1	6.53	113.42	108.20
5	A	2284	G	O4'-C1'-N9	6.53	113.42	108.20
5	A	2491	U	O4'-C1'-N1	6.53	113.42	108.20
5	A	676	G	C5-C6-O6	-6.52	124.69	128.60
5	A	1966	A	C4-C5-C6	6.52	120.26	117.00
5	A	1948	A	C4-C5-C6	6.52	120.26	117.00
6	B	89	C	N3-C4-N4	6.52	122.56	118.00
5	A	1030	G	P-O5'-C5'	6.52	131.33	120.90
5	A	2797	C	N3-C4-N4	6.52	122.56	118.00
5	A	846	G	O4'-C1'-N9	6.52	113.42	108.20
5	A	1467	G	O4'-C1'-N9	6.52	113.42	108.20
5	A	2923	A	C5-C6-N6	-6.52	118.48	123.70
6	B	27	A	C5-C6-N1	-6.52	114.44	117.70
5	A	695	G	O4'-C1'-N9	6.52	113.42	108.20
5	A	1068	G	C5-C6-O6	-6.52	124.69	128.60
5	A	1791	A	C4-C5-C6	6.52	120.26	117.00
5	A	2216	A	C4-C5-C6	6.52	120.26	117.00
5	A	35	G	O4'-C1'-N9	6.51	113.41	108.20
5	A	1801	G	O4'-C1'-N9	6.51	113.41	108.20
5	A	2402	A	O4'-C1'-N9	6.51	113.41	108.20
5	A	513	A	C5-C6-N1	-6.51	114.44	117.70
5	A	351	G	C5-C6-O6	-6.51	124.69	128.60
5	A	278	A	C5-C6-N1	-6.51	114.44	117.70
5	A	468	C	N3-C4-C5	-6.51	119.30	121.90
5	A	763	A	C4-C5-C6	6.51	120.25	117.00
5	A	652	A	O4'-C1'-N9	6.51	113.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1864	G	O4'-C1'-N9	6.51	113.41	108.20
5	A	720	C	C5'-C4'-O4'	-6.51	101.29	109.10
5	A	1176	U	O4'-C1'-N1	6.51	113.41	108.20
5	A	1228	G	C5-C6-O6	-6.51	124.70	128.60
6	B	7	G	C5-C6-O6	-6.51	124.70	128.60
5	A	1665	G	C5-C6-O6	-6.50	124.70	128.60
5	A	1838	A	C4-C5-C6	6.50	120.25	117.00
5	A	2691	A	C5-C6-N6	-6.50	118.50	123.70
6	B	67	G	C5-C6-O6	-6.50	124.70	128.60
5	A	2390	A	C4-C5-C6	6.50	120.25	117.00
5	A	2694	A	C4-C5-C6	6.50	120.25	117.00
5	A	592	A	C5-C6-N1	-6.50	114.45	117.70
5	A	2809	G	O4'-C1'-N9	6.50	113.40	108.20
5	A	2038	G	C5-C6-O6	-6.50	124.70	128.60
5	A	2555	G	C5-C6-O6	-6.50	124.70	128.60
5	A	660	G	C5-C6-O6	-6.50	124.70	128.60
5	A	806	G	C5-C6-O6	-6.50	124.70	128.60
5	A	810	G	C5-C6-O6	-6.50	124.70	128.60
5	A	877	G	C5-C6-O6	-6.50	124.70	128.60
5	A	1123	A	O4'-C1'-N9	6.50	113.40	108.20
5	A	1526	G	C5-C6-O6	-6.50	124.70	128.60
5	A	2488	A	C4-C5-C6	6.50	120.25	117.00
5	A	2576	U	O4'-C1'-N1	6.50	113.40	108.20
5	A	2683	A	C4-C5-C6	6.50	120.25	117.00
5	A	2848	A	C4-C5-C6	6.50	120.25	117.00
5	A	2071	A	O4'-C1'-N9	6.50	113.40	108.20
5	A	1188	A	C5-C6-N1	-6.49	114.45	117.70
5	A	1212	U	O4'-C1'-N1	6.49	113.39	108.20
5	A	2660	G	P-O5'-C5'	6.49	131.29	120.90
5	A	852	G	C5-C6-O6	-6.49	124.71	128.60
5	A	1120	G	C5-C6-O6	-6.49	124.71	128.60
5	A	1244	A	C5-C6-N6	-6.49	118.51	123.70
5	A	562	C	O4'-C1'-N1	6.49	113.39	108.20
5	A	758	A	C5-C6-N6	-6.49	118.51	123.70
5	A	821	A	C5-C6-N6	-6.49	118.51	123.70
5	A	933	C	O4'-C1'-N1	6.49	113.39	108.20
5	A	1106	U	C2'-C3'-O3'	6.49	124.08	113.70
5	A	1314	A	C4-C5-C6	6.49	120.24	117.00
5	A	1438	C	N3-C4-N4	6.49	122.54	118.00
5	A	2763	C	N3-C4-N4	6.49	122.54	118.00
5	A	191	G	C5-C6-O6	-6.49	124.71	128.60
5	A	790	A	O4'-C1'-N9	6.49	113.39	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1672	A	O4'-C1'-N9	6.49	113.39	108.20
5	A	476	A	P-O3'-C3'	6.49	127.48	119.70
5	A	1310	C	N3-C4-N4	6.49	122.54	118.00
5	A	1742	G	O4'-C1'-N9	6.49	113.39	108.20
5	A	1958	G	C5-C6-O6	-6.49	124.71	128.60
5	A	2775	U	O4'-C1'-N1	6.49	113.39	108.20
5	A	329	A	C5-C6-N6	-6.48	118.51	123.70
5	A	160	G	C5-C6-O6	-6.48	124.71	128.60
5	A	272	C	N3-C4-C5	-6.48	119.31	121.90
5	A	574	A	C4-C5-C6	6.48	120.24	117.00
5	A	872	C	N3-C4-C5	-6.48	119.31	121.90
5	A	2170	A	C5-C6-N6	-6.48	118.51	123.70
5	A	2205	A	C5-C6-N6	-6.48	118.51	123.70
5	A	2790	A	C5-C6-N6	-6.48	118.52	123.70
5	A	871	G	P-O5'-C5'	6.48	131.27	120.90
5	A	899	C	N3-C4-N4	6.48	122.54	118.00
5	A	1870	U	O4'-C1'-N1	6.48	113.38	108.20
5	A	2569	C	N3-C4-N4	6.48	122.54	118.00
5	A	2572	G	C5-C6-O6	-6.48	124.71	128.60
6	B	66	C	N3-C4-N4	6.48	122.54	118.00
6	B	99	A	C4-C5-C6	6.48	120.24	117.00
5	A	896	A	P-O5'-C5'	6.48	131.26	120.90
5	A	2459	A	C4-C5-C6	6.48	120.24	117.00
5	A	2734	A	O4'-C1'-N9	6.48	113.38	108.20
5	A	1254	A	C4-C5-C6	6.48	120.24	117.00
5	A	1233	A	O4'-C1'-N9	6.47	113.38	108.20
5	A	1479	G	O4'-C1'-N9	6.47	113.38	108.20
5	A	2626	G	C5-C6-O6	-6.47	124.72	128.60
5	A	2801	C	N3-C4-C5	-6.47	119.31	121.90
5	A	1460	G	N1-C6-O6	6.47	123.78	119.90
5	A	1466	U	O4'-C1'-N1	6.47	113.38	108.20
5	A	2144	G	C5-C6-O6	-6.47	124.72	128.60
5	A	2233	C	N3-C4-N4	6.47	122.53	118.00
5	A	2511	A	C4-C5-C6	6.47	120.24	117.00
6	B	94	G	C5-C6-O6	-6.47	124.72	128.60
5	A	295	G	C5-C6-O6	-6.47	124.72	128.60
5	A	42	G	C5'-C4'-C3'	-6.47	105.65	116.00
5	A	330	A	C5-C6-N1	-6.47	114.47	117.70
5	A	1541	A	P-O3'-C3'	6.47	127.46	119.70
5	A	1981	A	C4-C5-C6	6.47	120.23	117.00
5	A	2827	A	C4-C5-C6	6.47	120.23	117.00
6	B	57	G	O4'-C1'-N9	6.47	113.37	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	399	C	N3-C4-C5	-6.47	119.31	121.90
5	A	662	U	O4'-C1'-N1	6.47	113.37	108.20
5	A	935	A	O4'-C1'-N9	6.47	113.37	108.20
5	A	1114	G	C5-C6-O6	-6.47	124.72	128.60
5	A	1523	U	O4'-C1'-N1	6.47	113.37	108.20
5	A	1942	A	C4-C5-C6	6.47	120.23	117.00
6	B	5	G	C5-C6-O6	-6.47	124.72	128.60
5	A	1188	A	C4-C5-C6	6.46	120.23	117.00
5	A	1467	G	C5-C6-O6	-6.46	124.72	128.60
5	A	1755	C	O4'-C1'-N1	6.46	113.37	108.20
5	A	2162	G	C5-C6-O6	-6.46	124.72	128.60
5	A	2463	A	C5-C6-N6	-6.46	118.53	123.70
5	A	2715	G	O4'-C1'-N9	6.46	113.37	108.20
5	A	866	A	C4-C5-C6	6.46	120.23	117.00
5	A	2284	G	C5-C6-O6	-6.46	124.72	128.60
5	A	2353	U	O4'-C1'-N1	6.46	113.37	108.20
5	A	2744	C	N3-C4-C5	-6.46	119.31	121.90
5	A	2820	U	P-O3'-C3'	6.46	127.46	119.70
5	A	537	A	O4'-C1'-N9	6.46	113.37	108.20
5	A	692	A	O4'-C1'-N9	6.46	113.37	108.20
5	A	1785	G	O4'-C1'-N9	6.46	113.37	108.20
5	A	2066	A	C4-C5-C6	6.46	120.23	117.00
5	A	2595	A	C4-C5-C6	6.46	120.23	117.00
5	A	160	G	O4'-C1'-N9	6.46	113.37	108.20
5	A	1403	G	C5-C6-O6	-6.46	124.72	128.60
5	A	2837	A	O4'-C1'-N9	6.46	113.37	108.20
5	A	1390	C	P-O3'-C3'	6.46	127.45	119.70
5	A	1590	C	N3-C4-N4	6.46	122.52	118.00
5	A	2192	U	O4'-C1'-N1	6.46	113.37	108.20
5	A	2211	G	C5-C6-O6	-6.46	124.73	128.60
5	A	2365	A	C4-C5-C6	6.46	120.23	117.00
5	A	2391	G	C5-C6-O6	-6.46	124.73	128.60
5	A	2901	G	C5-C6-O6	-6.46	124.73	128.60
5	A	2129	G	O4'-C1'-N9	6.46	113.36	108.20
5	A	2573	G	O4'-C1'-N9	6.46	113.36	108.20
5	A	59	G	O4'-C1'-N9	6.45	113.36	108.20
5	A	760	G	P-O5'-C5'	6.45	131.23	120.90
5	A	2183	G	C5-C6-O6	-6.45	124.73	128.60
5	A	93	C	N3-C4-N4	6.45	122.52	118.00
5	A	1170	C	N3-C4-N4	6.45	122.52	118.00
5	A	2478	U	O4'-C1'-N1	6.45	113.36	108.20
5	A	2519	G	C5-C6-O6	-6.45	124.73	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2669	G	O4'-C1'-N9	6.45	113.36	108.20
5	A	37	C	O4'-C1'-N1	6.45	113.36	108.20
5	A	1046	A	C4-C5-C6	6.45	120.23	117.00
5	A	1233	A	C5-C6-N1	-6.45	114.47	117.70
5	A	1972	U	O4'-C1'-N1	6.45	113.36	108.20
5	A	84	A	C5-C6-N6	-6.45	118.54	123.70
5	A	296	G	C5-C6-O6	-6.45	124.73	128.60
5	A	500	A	C4-C5-C6	6.45	120.22	117.00
5	A	762	A	C4-C5-C6	6.45	120.22	117.00
5	A	2527	C	N3-C4-C5	-6.45	119.32	121.90
5	A	235	G	C5-C6-O6	-6.45	124.73	128.60
5	A	269	G	C5-C6-O6	-6.45	124.73	128.60
5	A	827	G	C5-C6-O6	-6.45	124.73	128.60
5	A	830	A	C8-N9-C4	-6.45	103.22	105.80
5	A	1462	G	O4'-C1'-N9	6.45	113.36	108.20
5	A	891	G	C5-C6-O6	-6.45	124.73	128.60
5	A	937	C	O4'-C1'-N1	6.45	113.36	108.20
5	A	1035	G	C5-C6-O6	-6.45	124.73	128.60
5	A	1198	C	N3-C4-N4	6.45	122.51	118.00
5	A	2050	G	C5-C6-O6	-6.44	124.73	128.60
5	A	2294	U	O4'-C1'-N1	6.44	113.36	108.20
5	A	322	A	C5'-C4'-C3'	-6.44	105.69	116.00
5	A	329	A	C4-C5-C6	6.44	120.22	117.00
5	A	1553	A	C4-C5-C6	6.44	120.22	117.00
5	A	1926	G	O4'-C1'-N9	6.44	113.35	108.20
5	A	2755	U	C2-N1-C1'	6.44	125.43	117.70
5	A	54	G	C5-C6-O6	-6.44	124.74	128.60
5	A	868	A	C4-C5-C6	6.44	120.22	117.00
5	A	2723	G	C5-C6-O6	-6.44	124.74	128.60
5	A	14	A	C5-C6-N6	-6.44	118.55	123.70
5	A	87	U	P-O3'-C3'	-6.44	111.97	119.70
5	A	1152	G	O4'-C1'-N9	6.44	113.35	108.20
5	A	1055	A	C4-C5-C6	6.44	120.22	117.00
5	A	2026	A	C5'-C4'-O4'	6.44	116.82	109.10
5	A	305	A	C4-C5-C6	6.43	120.22	117.00
5	A	414	C	C6-N1-C2	-6.43	117.73	120.30
5	A	605	G	C5-C6-O6	-6.43	124.74	128.60
5	A	1951	G	O4'-C1'-N9	6.43	113.35	108.20
5	A	2005	C	P-O3'-C3'	6.43	127.42	119.70
5	A	2222	C	N3-C4-N4	6.43	122.50	118.00
5	A	4	U	O4'-C1'-N1	6.43	113.35	108.20
5	A	81	G	O4'-C1'-N9	6.43	113.35	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	124	A	P-O3'-C3'	6.43	127.42	119.70
5	A	1928	A	O4'-C1'-N9	6.43	113.35	108.20
5	A	2260	U	O4'-C1'-N1	6.43	113.35	108.20
5	A	2527	C	N3-C4-N4	6.43	122.50	118.00
5	A	2653	G	C5-C6-O6	-6.43	124.74	128.60
5	A	418	A	O4'-C1'-N9	6.43	113.34	108.20
5	A	1092	A	C4-C5-C6	6.43	120.22	117.00
5	A	406	G	C5-C6-O6	-6.43	124.74	128.60
5	A	797	A	C4-C5-C6	6.43	120.22	117.00
5	A	1659	A	C4-C5-C6	6.43	120.22	117.00
5	A	1712	G	C5-C6-O6	-6.43	124.74	128.60
5	A	2086	G	O4'-C1'-N9	6.43	113.34	108.20
5	A	2176	A	O4'-C1'-N9	6.43	113.34	108.20
5	A	2204	U	O4'-C1'-N1	6.43	113.34	108.20
5	A	2717	G	N1-C6-O6	6.43	123.76	119.90
5	A	2796	C	N3-C4-N4	6.43	122.50	118.00
5	A	1691	A	O4'-C1'-N9	6.43	113.34	108.20
5	A	2876	A	O4'-C1'-N9	6.43	113.34	108.20
5	A	302	A	C5-C6-N1	-6.43	114.49	117.70
5	A	413	U	C2-N1-C1'	6.43	125.41	117.70
5	A	712	C	N3-C4-N4	6.43	122.50	118.00
5	A	1313	A	C5-C6-N6	-6.43	118.56	123.70
5	A	1873	U	O4'-C1'-N1	6.43	113.34	108.20
5	A	2742	C	O4'-C1'-N1	6.43	113.34	108.20
5	A	1149	A	O4'-C1'-N9	6.42	113.34	108.20
5	A	1745	A	C4-C5-C6	6.42	120.21	117.00
5	A	2350	G	C5-C6-O6	-6.42	124.75	128.60
5	A	2579	G	C5-C6-O6	-6.42	124.75	128.60
5	A	120	G	O4'-C1'-N9	6.42	113.34	108.20
5	A	1096	A	C4-C5-C6	6.42	120.21	117.00
5	A	1110	C	P-O3'-C3'	6.42	127.40	119.70
5	A	1280	G	P-O3'-C3'	-6.42	112.00	119.70
5	A	1780	C	N3-C4-N4	6.42	122.49	118.00
5	A	2379	C	N3-C4-N4	6.42	122.49	118.00
5	A	152	C	N3-C4-C5	-6.42	119.33	121.90
5	A	216	A	C5-C6-N1	-6.42	114.49	117.70
5	A	356	G	O4'-C1'-N9	6.42	113.33	108.20
5	A	1228	G	O4'-C1'-N9	6.42	113.33	108.20
5	A	1337	C	N3-C4-N4	6.42	122.49	118.00
5	A	1444	C	N3-C4-N4	6.42	122.49	118.00
5	A	1953	C	O4'-C1'-N1	6.42	113.33	108.20
5	A	2656	G	O4'-C1'-N9	6.42	113.33	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1370	C	N3-C4-C5	-6.42	119.33	121.90
5	A	2343	A	C5-C6-N1	-6.42	114.49	117.70
5	A	237	U	P-O3'-C3'	-6.41	112.00	119.70
5	A	769	A	C5-C6-N6	-6.41	118.57	123.70
5	A	1614	A	C4-C5-C6	6.41	120.21	117.00
5	A	2154	G	C5-C6-O6	-6.41	124.75	128.60
5	A	80	G	O4'-C1'-N9	6.41	113.33	108.20
5	A	1074	A	C4-C5-C6	6.41	120.21	117.00
5	A	437	A	C4-C5-C6	6.41	120.20	117.00
5	A	1679	A	C5-C6-N1	-6.41	114.49	117.70
5	A	1762	G	O4'-C1'-N9	6.41	113.33	108.20
5	A	2490	C	O4'-C1'-N1	6.41	113.33	108.20
5	A	2589	C	O4'-C1'-N1	6.41	113.33	108.20
5	A	273	A	O4'-C1'-N9	6.41	113.33	108.20
5	A	528	G	O4'-C1'-N9	6.41	113.33	108.20
5	A	824	G	O4'-C1'-N9	6.41	113.33	108.20
5	A	1621	G	C5-C6-O6	-6.41	124.75	128.60
5	A	2264	G	O4'-C1'-N9	6.41	113.33	108.20
5	A	101	G	O4'-C1'-N9	6.41	113.33	108.20
5	A	129	C	N3-C4-N4	6.41	122.48	118.00
5	A	1385	G	O4'-C1'-N9	6.41	113.33	108.20
5	A	2072	C	N3-C4-N4	6.41	122.48	118.00
5	A	2325	U	O4'-C1'-N1	6.41	113.33	108.20
5	A	208	G	C5-C6-O6	-6.41	124.76	128.60
5	A	558	G	C5-C6-O6	-6.41	124.76	128.60
5	A	1094	A	C4-C5-C6	6.41	120.20	117.00
5	A	1098	C	O4'-C1'-N1	6.41	113.33	108.20
5	A	1665	G	O4'-C1'-N9	6.41	113.32	108.20
5	A	1829	C	O4'-C1'-N1	6.41	113.32	108.20
5	A	2882	G	C5-C6-O6	-6.41	124.76	128.60
5	A	1366	C	N3-C4-N4	6.40	122.48	118.00
5	A	2020	U	O4'-C1'-N1	6.40	113.32	108.20
5	A	24	G	O4'-C1'-N9	6.40	113.32	108.20
5	A	794	U	O4'-C1'-N1	6.40	113.32	108.20
5	A	1158	G	O4'-C1'-N9	6.40	113.32	108.20
5	A	2898	A	C4-C5-C6	6.40	120.20	117.00
5	A	661	A	O4'-C1'-N9	6.40	113.32	108.20
5	A	1398	A	C4-C5-C6	6.40	120.20	117.00
5	A	2007	A	O4'-C1'-N9	6.40	113.32	108.20
5	A	2155	A	C5-C6-N6	-6.40	118.58	123.70
5	A	531	C	N3-C4-N4	6.40	122.48	118.00
5	A	1648	A	O4'-C1'-N9	6.40	113.32	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1995	A	C4-C5-C6	6.40	120.20	117.00
5	A	2048	U	O4'-C1'-N1	6.40	113.32	108.20
5	A	65	A	O4'-C1'-N9	6.40	113.32	108.20
5	A	2061	G	N1-C6-O6	6.40	123.74	119.90
5	A	2225	C	O4'-C1'-N1	6.40	113.32	108.20
5	A	699	A	O4'-C1'-N9	6.40	113.32	108.20
5	A	740	A	O4'-C1'-N9	6.40	113.32	108.20
5	A	988	G	O4'-C1'-N9	6.40	113.32	108.20
5	A	512	G	C5-C6-O6	-6.39	124.76	128.60
5	A	979	U	C2-N1-C1'	6.39	125.37	117.70
5	A	1303	U	O4'-C1'-N1	6.39	113.32	108.20
5	A	1589	G	C5-C6-O6	-6.39	124.76	128.60
5	A	2002	G	C5-C6-O6	-6.39	124.76	128.60
5	A	57	C	N3-C4-N4	6.39	122.47	118.00
5	A	304	G	C5-C6-O6	-6.39	124.77	128.60
5	A	1252	G	N3-C2-N2	6.39	124.37	119.90
5	A	2080	A	O4'-C1'-N9	6.39	113.31	108.20
5	A	2754	A	C4-C5-C6	6.39	120.20	117.00
5	A	2653	G	O4'-C1'-N9	6.39	113.31	108.20
6	B	109	C	C6-N1-C2	-6.39	117.74	120.30
5	A	1954	C	N3-C4-N4	6.39	122.47	118.00
6	B	71	A	C5-C6-N1	-6.39	114.51	117.70
5	A	888	A	O4'-C1'-N9	6.39	113.31	108.20
5	A	917	A	C5-C6-N1	-6.39	114.51	117.70
5	A	1464	A	O4'-C1'-N9	6.39	113.31	108.20
5	A	257	G	C5-C6-O6	-6.39	124.77	128.60
5	A	454	G	O4'-C1'-N9	6.39	113.31	108.20
5	A	1088	G	O4'-C1'-N9	6.39	113.31	108.20
5	A	1235	A	C4-C5-C6	6.39	120.19	117.00
5	A	766	C	O4'-C1'-N1	6.38	113.31	108.20
5	A	1061	A	C4-C5-C6	6.38	120.19	117.00
5	A	1219	C	P-O3'-C3'	6.38	127.36	119.70
5	A	473	C	N3-C4-C5	-6.38	119.35	121.90
5	A	545	U	O4'-C1'-N1	6.38	113.31	108.20
5	A	1335	A	C5-C6-N6	-6.38	118.59	123.70
5	A	1472	G	C5-C6-O6	-6.38	124.77	128.60
5	A	1653	A	C4-C5-C6	6.38	120.19	117.00
5	A	2494	C	N3-C4-N4	6.38	122.47	118.00
5	A	2860	A	C4-C5-C6	6.38	120.19	117.00
5	A	128	C	N3-C4-N4	6.38	122.47	118.00
5	A	613	U	O4'-C1'-N1	6.38	113.30	108.20
5	A	314	A	C4-C5-C6	6.38	120.19	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	723	A	C5-C6-N1	-6.38	114.51	117.70
5	A	2794	A	O4'-C1'-N9	6.38	113.30	108.20
5	A	1149	A	C4-C5-C6	6.38	120.19	117.00
5	A	1021	A	O4'-C1'-N9	6.38	113.30	108.20
5	A	2141	A	C4-C5-C6	6.38	120.19	117.00
5	A	2526	A	C5-C6-N6	-6.38	118.60	123.70
5	A	2622	U	O4'-C1'-N1	6.38	113.30	108.20
5	A	124	A	C4-C5-C6	6.37	120.19	117.00
5	A	1517	A	C4-C5-C6	6.37	120.19	117.00
5	A	2023	C	N3-C4-C5	-6.37	119.35	121.90
5	A	2454	A	C4-C5-C6	6.37	120.19	117.00
5	A	2473	G	O4'-C1'-N9	6.37	113.30	108.20
5	A	2845	A	C4-C5-C6	6.37	120.19	117.00
6	B	9	C	O4'-C1'-N1	6.37	113.30	108.20
5	A	1190	A	O4'-C1'-N9	6.37	113.30	108.20
5	A	1409	C	N3-C4-N4	6.37	122.46	118.00
5	A	1827	U	O4'-C1'-N1	6.37	113.30	108.20
5	A	1845	A	C4-C5-C6	6.37	120.19	117.00
5	A	2855	G	O4'-C1'-N9	6.37	113.30	108.20
6	B	37	A	C4-C5-C6	6.37	120.19	117.00
5	A	945	C	N3-C4-N4	6.37	122.46	118.00
5	A	1130	A	C4-C5-C6	6.37	120.18	117.00
5	A	1186	C	N3-C4-N4	6.37	122.46	118.00
5	A	1696	G	O4'-C1'-N9	6.37	113.29	108.20
5	A	2522	U	O4'-C1'-N1	6.37	113.30	108.20
5	A	1349	G	C5-C6-O6	-6.37	124.78	128.60
5	A	1710	A	C5-C6-N6	-6.37	118.61	123.70
5	A	2753	U	O4'-C1'-N1	6.37	113.29	108.20
6	B	30	C	N3-C4-C5	-6.37	119.35	121.90
5	A	1099	C	N3-C4-N4	6.37	122.46	118.00
5	A	1359	G	O4'-C1'-N9	6.37	113.29	108.20
5	A	1802	A	C5-C6-N1	-6.37	114.52	117.70
5	A	681	C	N3-C4-N4	6.36	122.45	118.00
5	A	847	A	C4-C5-C6	6.36	120.18	117.00
5	A	1686	A	O4'-C1'-N9	6.36	113.29	108.20
5	A	1722	A	C5-C6-N6	-6.36	118.61	123.70
5	A	2035	C	N3-C4-N4	6.36	122.45	118.00
5	A	2435	C	N3-C4-C5	-6.36	119.35	121.90
5	A	138	U	C2-N1-C1'	6.36	125.33	117.70
5	A	1133	G	O4'-C1'-N9	6.36	113.29	108.20
5	A	2737	G	O4'-C1'-N9	6.36	113.29	108.20
5	A	372	U	O4'-C1'-N1	6.36	113.29	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1945	A	O4'-C1'-N9	6.36	113.29	108.20
5	A	1967	A	O4'-C1'-N9	6.36	113.29	108.20
5	A	92	G	C5-C6-O6	-6.36	124.78	128.60
5	A	724	A	C4-C5-C6	6.36	120.18	117.00
5	A	1008	A	C4-C5-C6	6.36	120.18	117.00
5	A	2210	G	C5-C6-O6	-6.36	124.78	128.60
5	A	435	G	C5-C6-O6	-6.36	124.78	128.60
5	A	623	A	C5-C6-N1	-6.36	114.52	117.70
5	A	673	A	C5-C6-N6	-6.36	118.61	123.70
5	A	1053	C	N3-C4-N4	6.36	122.45	118.00
5	A	1480	A	C5-C6-N1	-6.36	114.52	117.70
5	A	1763	G	C5-C6-O6	-6.36	124.79	128.60
5	A	2333	G	O4'-C1'-N9	6.36	113.28	108.20
5	A	2791	U	P-O3'-C3'	6.36	127.33	119.70
5	A	2828	G	C5-C6-O6	-6.36	124.78	128.60
5	A	614	G	O4'-C1'-N9	6.36	113.28	108.20
5	A	932	C	N3-C4-N4	6.36	122.45	118.00
5	A	1264	G	C5-C6-O6	-6.36	124.79	128.60
5	A	2142	C	N3-C4-C5	-6.36	119.36	121.90
5	A	2458	G	C5-C6-O6	-6.36	124.79	128.60
5	A	627	G	O4'-C1'-N9	6.35	113.28	108.20
5	A	2368	G	O4'-C1'-N9	6.35	113.28	108.20
5	A	870	A	C5-C6-N6	-6.35	118.62	123.70
6	B	104	G	O4'-C1'-N9	6.35	113.28	108.20
5	A	782	A	C4-C5-C6	6.35	120.17	117.00
5	A	878	G	O4'-C1'-N9	6.35	113.28	108.20
5	A	542	G	C5-C6-O6	-6.35	124.79	128.60
5	A	1471	G	C5-C6-O6	-6.35	124.79	128.60
5	A	2179	U	O4'-C1'-N1	6.35	113.28	108.20
5	A	2621	G	C5-C6-O6	-6.35	124.79	128.60
5	A	2877	G	O4'-C1'-N9	6.35	113.28	108.20
6	B	64	A	C4-C5-C6	6.35	120.17	117.00
5	A	59	G	C5-C6-O6	-6.35	124.79	128.60
5	A	160	G	N3-C2-N2	6.35	124.34	119.90
5	A	1744	G	C5-C6-O6	-6.35	124.79	128.60
5	A	279	A	C5-C6-N1	-6.34	114.53	117.70
5	A	302	A	O4'-C1'-N9	6.34	113.28	108.20
5	A	669	C	N3-C4-N4	6.34	122.44	118.00
5	A	1541	A	C4-C5-C6	6.34	120.17	117.00
5	A	1784	A	C5-C6-N6	-6.34	118.62	123.70
5	A	2825	C	N3-C4-N4	6.34	122.44	118.00
6	B	8	G	C5-C6-O6	-6.34	124.79	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	171	A	O4'-C1'-N9	6.34	113.28	108.20
5	A	616	A	C4-C5-C6	6.34	120.17	117.00
5	A	634	A	O4'-C1'-N9	6.34	113.28	108.20
5	A	1850	A	C4-C5-C6	6.34	120.17	117.00
5	A	1941	A	C4-C5-C6	6.34	120.17	117.00
5	A	2364	A	C4-C5-C6	6.34	120.17	117.00
5	A	22	C	N3-C4-N4	6.34	122.44	118.00
5	A	112	U	O4'-C1'-N1	6.34	113.27	108.20
5	A	1801	G	C5-C6-O6	-6.34	124.80	128.60
5	A	2002	G	O4'-C1'-N9	6.34	113.27	108.20
5	A	192	G	O4'-C1'-N9	6.34	113.27	108.20
5	A	517	A	C4-C5-C6	6.34	120.17	117.00
5	A	2401	G	O4'-C1'-N9	6.34	113.27	108.20
6	B	86	U	O4'-C1'-N1	6.34	113.27	108.20
5	A	800	G	C5-C6-O6	-6.34	124.80	128.60
5	A	1674	G	O4'-C1'-N9	6.34	113.27	108.20
5	A	26	G	C5-C6-O6	-6.34	124.80	128.60
5	A	674	G	O4'-C1'-N9	6.34	113.27	108.20
5	A	918	U	O4'-C1'-N1	6.34	113.27	108.20
5	A	1773	G	O4'-C1'-N9	6.34	113.27	108.20
5	A	2305	G	C5-C6-O6	-6.34	124.80	128.60
5	A	2722	A	O4'-C1'-N9	6.34	113.27	108.20
5	A	5	A	C4-C5-C6	6.33	120.17	117.00
5	A	589	G	O4'-C1'-N9	6.33	113.27	108.20
5	A	1710	A	C4-C5-C6	6.33	120.17	117.00
5	A	699	A	C4-C5-C6	6.33	120.17	117.00
5	A	969	C	N3-C4-C5	-6.33	119.37	121.90
5	A	1828	G	C5-C6-O6	-6.33	124.80	128.60
5	A	2498	A	C4-C5-C6	6.33	120.17	117.00
5	A	2758	G	O4'-C1'-N9	6.33	113.27	108.20
5	A	1640	G	C5-C6-O6	-6.33	124.80	128.60
5	A	2001	G	C5-C6-O6	-6.33	124.80	128.60
5	A	2157	C	N3-C4-N4	6.33	122.43	118.00
5	A	2481	C	O4'-C1'-N1	6.33	113.27	108.20
5	A	2556	C	N3-C4-N4	6.33	122.43	118.00
5	A	2772	U	O4'-C1'-N1	6.33	113.27	108.20
5	A	53	A	C4-C5-C6	6.33	120.17	117.00
5	A	823	G	C4-N9-C1'	6.33	134.73	126.50
5	A	925	A	C4-C5-C6	6.33	120.17	117.00
5	A	49	A	C5-C6-N1	-6.33	114.54	117.70
5	A	747	G	C5-C6-O6	-6.33	124.80	128.60
5	A	1852	G	O4'-C1'-N9	6.33	113.26	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2042	A	C4-C5-C6	6.33	120.16	117.00
5	A	2334	U	O4'-C1'-N1	6.33	113.26	108.20
5	A	2794	A	C5-C6-N6	-6.33	118.64	123.70
5	A	231	A	C5-C6-N1	-6.33	114.54	117.70
5	A	1444	C	N3-C4-C5	-6.33	119.37	121.90
5	A	436	A	C4-C5-C6	6.33	120.16	117.00
5	A	749	G	O4'-C1'-N9	6.33	113.26	108.20
5	A	781	A	C4-C5-C6	6.33	120.16	117.00
5	A	795	G	C5-C6-O6	-6.33	124.80	128.60
5	A	1047	A	O4'-C1'-N9	6.33	113.26	108.20
5	A	2062	A	O4'-C1'-N9	6.33	113.26	108.20
5	A	475	A	O3'-P-O5'	-6.32	91.98	104.00
5	A	1210	A	C4-C5-C6	6.32	120.16	117.00
5	A	1431	G	C5-C6-O6	-6.32	124.81	128.60
5	A	2146	A	C5-C6-N6	-6.32	118.64	123.70
5	A	2586	G	C5-C6-O6	-6.32	124.81	128.60
5	A	15	G	O4'-C1'-N9	6.32	113.26	108.20
5	A	335	G	C5-C6-O6	-6.32	124.81	128.60
5	A	835	A	C4-C5-C6	6.32	120.16	117.00
5	A	2274	U	O4'-C1'-N1	6.32	113.26	108.20
5	A	178	A	C4-C5-C6	6.32	120.16	117.00
5	A	218	G	C5-C6-O6	-6.32	124.81	128.60
5	A	518	A	C5-C6-N1	-6.32	114.54	117.70
5	A	957	A	C4-C5-C6	6.32	120.16	117.00
5	A	1227	G	C5-C6-O6	-6.32	124.81	128.60
5	A	1736	C	N3-C4-C5	-6.32	119.37	121.90
5	A	2254	A	O4'-C1'-N9	6.32	113.26	108.20
5	A	2429	G	O4'-C1'-N9	6.32	113.26	108.20
17	P	43	PHE	CB-CG-CD2	6.32	125.22	120.80
5	A	1248	C	N3-C4-N4	6.32	122.42	118.00
5	A	2734	A	C5-C6-N6	-6.32	118.64	123.70
5	A	1062	C	N3-C4-C5	-6.32	119.37	121.90
5	A	1643	C	N3-C4-N4	6.32	122.42	118.00
5	A	1711	G	C5-C6-O6	-6.32	124.81	128.60
5	A	2787	A	C5-C6-N6	-6.32	118.64	123.70
6	B	15	C	N3-C4-N4	6.32	122.42	118.00
6	B	30	C	N3-C4-N4	6.32	122.42	118.00
5	A	260	A	C4-C5-C6	6.32	120.16	117.00
5	A	1630	G	C5-C6-O6	-6.32	124.81	128.60
5	A	2391	G	O4'-C1'-N9	6.32	113.25	108.20
5	A	201	C	N3-C4-N4	6.31	122.42	118.00
5	A	514	G	C5-C6-O6	-6.31	124.81	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	808	A	C4-C5-C6	6.31	120.16	117.00
5	A	885	C	N3-C4-N4	6.31	122.42	118.00
5	A	2092	C	N3-C4-N4	6.31	122.42	118.00
5	A	2357	A	C5-C6-N6	-6.31	118.65	123.70
5	A	2444	G	O4'-C1'-N9	6.31	113.25	108.20
6	B	4	G	C5-C6-O6	-6.31	124.81	128.60
6	B	31	G	O4'-C1'-N9	6.31	113.25	108.20
6	B	55	A	C4-C5-C6	6.31	120.16	117.00
5	A	1236	G	C5-C6-O6	-6.31	124.81	128.60
5	A	834	C	N3-C4-N4	6.31	122.42	118.00
5	A	1421	A	C4-C5-C6	6.31	120.16	117.00
5	A	1480	A	C4-C5-C6	6.31	120.16	117.00
5	A	2044	A	O4'-C1'-N9	6.31	113.25	108.20
5	A	2094	C	N3-C4-N4	6.31	122.42	118.00
5	A	2762	A	C4-C5-C6	6.31	120.15	117.00
5	A	611	U	P-O3'-C3'	6.31	127.27	119.70
5	A	769	A	C4-C5-C6	6.31	120.15	117.00
5	A	2508	U	O4'-C1'-N1	6.31	113.25	108.20
5	A	2620	C	N3-C4-C5	-6.31	119.38	121.90
5	A	360	C	N3-C4-N4	6.31	122.41	118.00
5	A	1269	A	C4-C5-C6	6.31	120.15	117.00
5	A	2925	C	N3-C4-N4	6.31	122.41	118.00
5	A	127	C	N3-C4-C5	-6.30	119.38	121.90
5	A	407	A	C4-C5-C6	6.30	120.15	117.00
5	A	1563	G	C5-C6-O6	-6.30	124.82	128.60
5	A	2371	C	N3-C4-N4	6.30	122.41	118.00
5	A	2708	A	C4-C5-C6	6.30	120.15	117.00
5	A	2812	A	C4-C5-C6	6.30	120.15	117.00
5	A	7	G	O4'-C1'-N9	6.30	113.24	108.20
5	A	490	A	C4-C5-C6	6.30	120.15	117.00
5	A	938	G	C5'-C4'-O4'	6.30	116.66	109.10
5	A	1937	C	N3-C4-N4	6.30	122.41	118.00
5	A	2711	G	C5-C6-O6	-6.30	124.82	128.60
5	A	2835	A	C5-C6-N1	-6.30	114.55	117.70
5	A	2841	C	O4'-C1'-N1	6.30	113.24	108.20
6	B	90	C	N3-C4-N4	6.30	122.41	118.00
5	A	368	G	O4'-C1'-N9	6.30	113.24	108.20
5	A	513	A	C4-C5-C6	6.30	120.15	117.00
5	A	910	A	C4-C5-C6	6.30	120.15	117.00
5	A	932	C	N3-C4-C5	-6.30	119.38	121.90
5	A	2406	A	C4-C5-C6	6.30	120.15	117.00
5	A	2420	G	C5-C6-O6	-6.30	124.82	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2030	A	O4'-C1'-N9	6.30	113.24	108.20
5	A	2765	G	O4'-C1'-N9	6.30	113.24	108.20
5	A	67	A	C5-C6-N1	-6.30	114.55	117.70
5	A	1326	A	C5-C6-N6	-6.30	118.66	123.70
5	A	1352	U	C2-N1-C1'	6.30	125.26	117.70
5	A	2716	U	O4'-C1'-N1	6.30	113.24	108.20
5	A	2885	A	C4-C5-C6	6.30	120.15	117.00
5	A	1364	C	O4'-C1'-N1	6.29	113.24	108.20
17	P	74	PHE	CB-CG-CD2	-6.29	116.39	120.80
5	A	18	C	N3-C4-N4	6.29	122.41	118.00
5	A	202	A	C4-C5-C6	6.29	120.15	117.00
5	A	448	A	O4'-C1'-N9	6.29	113.23	108.20
5	A	657	G	O4'-C1'-N9	6.29	113.23	108.20
5	A	786	A	C4-C5-C6	6.29	120.15	117.00
5	A	917	A	C4-C5-C6	6.29	120.15	117.00
5	A	1813	A	C5-C6-N6	-6.29	118.67	123.70
5	A	2228	A	P-O3'-C3'	6.29	127.25	119.70
5	A	65	A	C4-C5-C6	6.29	120.15	117.00
5	A	1068	G	N3-C2-N2	6.29	124.30	119.90
5	A	2869	A	O4'-C1'-N9	6.29	113.23	108.20
5	A	2885	A	O4'-C1'-N9	6.29	113.23	108.20
5	A	2290	C	N3-C4-N4	6.29	122.40	118.00
5	A	359	C	N3-C4-N4	6.29	122.40	118.00
5	A	1357	A	C4-C5-C6	6.29	120.14	117.00
5	A	1511	C	N3-C4-N4	6.29	122.40	118.00
5	A	2157	C	N3-C4-C5	-6.29	119.39	121.90
5	A	2395	A	C5-C6-N6	-6.29	118.67	123.70
5	A	1773	G	C5-C6-O6	-6.29	124.83	128.60
5	A	428	A	C4-C5-C6	6.29	120.14	117.00
5	A	1397	G	C5-C6-O6	-6.29	124.83	128.60
5	A	1493	C	N3-C4-N4	6.29	122.40	118.00
5	A	2655	C	N3-C4-N4	6.29	122.40	118.00
5	A	2708	A	C5-C6-N1	-6.29	114.56	117.70
5	A	415	C	N3-C4-N4	6.28	122.40	118.00
5	A	418	A	C5-C6-N6	-6.28	118.67	123.70
5	A	818	G	C5-C6-O6	-6.28	124.83	128.60
5	A	1400	G	O4'-C1'-N9	6.28	113.23	108.20
5	A	2199	G	C5-C6-O6	-6.28	124.83	128.60
5	A	2613	U	C2-N1-C1'	6.28	125.24	117.70
5	A	2870	G	O4'-C1'-N9	6.28	113.23	108.20
5	A	2907	A	O4'-C1'-N9	6.28	113.23	108.20
5	A	2658	A	C4-C5-C6	6.28	120.14	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	51	A	C4-C5-C6	6.28	120.14	117.00
5	A	421	A	O4'-C1'-N9	6.28	113.22	108.20
5	A	678	A	C4-C5-C6	6.28	120.14	117.00
5	A	736	A	C5-C6-N6	-6.28	118.68	123.70
5	A	114	C	O4'-C1'-N1	6.28	113.22	108.20
5	A	1483	A	C5-C6-N6	-6.28	118.68	123.70
5	A	2461	A	C5-C6-N6	-6.28	118.68	123.70
5	A	1274	U	P-O3'-C3'	6.28	127.23	119.70
5	A	2349	A	C4-C5-C6	6.28	120.14	117.00
6	B	92	C	N3-C4-N4	6.28	122.39	118.00
5	A	479	A	C4-C5-C6	6.28	120.14	117.00
5	A	919	U	P-O5'-C5'	6.28	130.94	120.90
5	A	1809	A	C4-C5-C6	6.28	120.14	117.00
5	A	1834	C	N3-C4-N4	6.28	122.39	118.00
5	A	2100	A	C5-C6-N6	-6.28	118.68	123.70
5	A	2421	A	C4-C5-C6	6.28	120.14	117.00
5	A	2550	C	N3-C4-N4	6.28	122.39	118.00
5	A	1683	C	N3-C4-N4	6.27	122.39	118.00
5	A	2398	A	C4-C5-C6	6.27	120.14	117.00
5	A	825	G	C5-C6-O6	-6.27	124.84	128.60
5	A	1072	A	C4-C5-C6	6.27	120.14	117.00
5	A	2207	C	C6-N1-C1'	-6.27	113.27	120.80
5	A	126	A	C4-C5-C6	6.27	120.14	117.00
5	A	1468	G	O4'-C1'-N9	6.27	113.22	108.20
5	A	1923	C	N3-C4-N4	6.27	122.39	118.00
5	A	2123	A	C5-C6-N1	-6.27	114.56	117.70
5	A	2163	A	C5-C6-N6	-6.27	118.68	123.70
5	A	2223	U	O4'-C1'-N1	6.27	113.22	108.20
5	A	2626	G	C5'-C4'-C3'	6.27	126.03	116.00
5	A	845	G	O4'-C1'-N9	6.27	113.22	108.20
5	A	1051	C	P-O5'-C5'	6.27	130.93	120.90
5	A	1191	C	N3-C4-N4	6.27	122.39	118.00
5	A	2419	U	C2-N1-C1'	6.27	125.22	117.70
5	A	254	A	C4-C5-C6	6.27	120.13	117.00
5	A	645	C	O4'-C1'-N1	6.27	113.21	108.20
5	A	884	C	N3-C4-N4	6.27	122.39	118.00
5	A	1769	G	O4'-C1'-N9	6.27	113.21	108.20
5	A	2073	C	N3-C4-N4	6.27	122.39	118.00
5	A	2406	A	C5-C6-N6	-6.27	118.69	123.70
6	B	44	A	C4-C5-C6	6.27	120.13	117.00
5	A	10	A	C4-C5-C6	6.27	120.13	117.00
5	A	324	A	C4-C5-C6	6.27	120.13	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1429	U	O4'-C1'-N1	6.27	113.21	108.20
5	A	2032	A	C5-C6-N6	-6.27	118.69	123.70
5	A	2488	A	C5-C6-N1	-6.27	114.57	117.70
5	A	183	A	O4'-C1'-N9	6.26	113.21	108.20
5	A	1084	A	C5-C6-N6	-6.26	118.69	123.70
5	A	1653	A	C5-C6-N6	-6.26	118.69	123.70
5	A	1658	G	C5-C6-O6	-6.26	124.84	128.60
5	A	2426	G	C5-C6-O6	-6.26	124.84	128.60
5	A	637	A	C5-C6-N1	-6.26	114.57	117.70
5	A	1020	A	C4-C5-C6	6.26	120.13	117.00
5	A	1410	G	C5-C6-O6	-6.26	124.84	128.60
5	A	1734	A	C4-C5-C6	6.26	120.13	117.00
5	A	2293	C	N3-C4-N4	6.26	122.38	118.00
5	A	2482	A	C5-C6-N1	-6.26	114.57	117.70
5	A	231	A	C4-C5-C6	6.26	120.13	117.00
5	A	1281	C	C6-N1-C1'	-6.26	113.29	120.80
5	A	1661	A	C4-C5-C6	6.26	120.13	117.00
5	A	1675	A	C4-C5-C6	6.26	120.13	117.00
5	A	2496	C	N3-C4-N4	6.26	122.38	118.00
5	A	2588	C	O4'-C1'-N1	6.26	113.21	108.20
5	A	2733	C	C5-C4-N4	-6.26	115.82	120.20
5	A	2813	U	O4'-C1'-N1	6.26	113.21	108.20
5	A	2854	A	C5-C6-N1	-6.26	114.57	117.70
5	A	2858	U	O4'-C1'-N1	6.26	113.21	108.20
5	A	460	C	N3-C4-C5	-6.26	119.40	121.90
5	A	494	A	C5-C6-N6	-6.26	118.69	123.70
5	A	543	A	C5-C6-N6	-6.26	118.69	123.70
5	A	1179	A	C4-C5-C6	6.26	120.13	117.00
5	A	1183	G	C5-C6-O6	-6.26	124.84	128.60
5	A	2369	A	C5-C6-N6	-6.26	118.69	123.70
5	A	965	A	O4'-C1'-N9	6.26	113.21	108.20
5	A	1623	C	N3-C4-N4	6.26	122.38	118.00
5	A	1749	G	C5-C6-O6	-6.26	124.84	128.60
5	A	515	G	C5-C6-O6	-6.26	124.85	128.60
5	A	1131	A	C4-C5-C6	6.26	120.13	117.00
5	A	1817	C	N3-C4-N4	6.26	122.38	118.00
5	A	2532	A	C4-C5-C6	6.26	120.13	117.00
5	A	2882	G	O4'-C1'-N9	6.26	113.21	108.20
5	A	724	A	C5-C6-N6	-6.25	118.70	123.70
5	A	2880	U	O4'-C1'-N1	6.25	113.20	108.20
5	A	278	A	O4'-C1'-N9	6.25	113.20	108.20
5	A	469	A	C4-C5-C6	6.25	120.13	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2182	G	O4'-C1'-N9	6.25	113.20	108.20
5	A	2324	C	N3-C4-N4	6.25	122.38	118.00
5	A	1674	G	C5-C6-O6	-6.25	124.85	128.60
5	A	2482	A	C5-C6-N6	-6.25	118.70	123.70
5	A	2635	C	N3-C4-N4	6.25	122.38	118.00
6	B	11	A	C4-C5-C6	6.25	120.12	117.00
5	A	439	U	O4'-C1'-N1	6.25	113.20	108.20
5	A	455	G	O4'-C1'-N9	6.25	113.20	108.20
5	A	734	C	N3-C4-N4	6.25	122.37	118.00
5	A	1265	A	C4-C5-C6	6.25	120.12	117.00
5	A	1346	A	C4-C5-C6	6.25	120.12	117.00
5	A	510	G	O4'-C1'-N9	6.25	113.20	108.20
5	A	1139	G	C5-C6-O6	-6.25	124.85	128.60
5	A	2891	G	C5-C6-O6	-6.25	124.85	128.60
5	A	2903	U	O4'-C1'-N1	6.25	113.20	108.20
5	A	1194	A	C4-C5-C6	6.25	120.12	117.00
5	A	1536	A	O4'-C1'-N9	6.25	113.20	108.20
5	A	32	C	N3-C4-C5	-6.24	119.40	121.90
5	A	186	C	N3-C4-N4	6.24	122.37	118.00
5	A	593	A	O4'-C1'-N9	6.24	113.20	108.20
5	A	654	G	O4'-C1'-N9	6.24	113.19	108.20
5	A	770	A	C5-C6-N6	-6.24	118.70	123.70
5	A	1631	A	C4-C5-C6	6.24	120.12	117.00
5	A	2411	G	O4'-C1'-N9	6.24	113.19	108.20
5	A	2542	A	C4-C5-C6	6.24	120.12	117.00
6	B	107	G	C5-C6-O6	-6.24	124.85	128.60
5	A	630	A	C5-C6-N1	-6.24	114.58	117.70
5	A	2714	G	O4'-C1'-N9	6.24	113.19	108.20
5	A	268	A	C5-C6-N6	-6.24	118.71	123.70
5	A	1440	G	O4'-C1'-N9	6.24	113.19	108.20
5	A	1841	G	O4'-C1'-N9	6.24	113.19	108.20
5	A	2525	C	N3-C4-C5	-6.24	119.40	121.90
5	A	365	U	O4'-C1'-N1	6.24	113.19	108.20
5	A	477	A	C4-C5-C6	6.24	120.12	117.00
5	A	734	C	N3-C4-C5	-6.24	119.41	121.90
5	A	871	G	O4'-C1'-N9	6.24	113.19	108.20
5	A	1221	A	O4'-C1'-N9	6.24	113.19	108.20
5	A	1313	A	C4-C5-C6	6.24	120.12	117.00
5	A	1387	G	C5-C6-O6	-6.24	124.86	128.60
5	A	2233	C	N3-C4-C5	-6.24	119.40	121.90
5	A	443	G	O4'-C1'-N9	6.24	113.19	108.20
5	A	1174	A	O4'-C1'-N9	6.24	113.19	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1732	G	C5-C6-O6	-6.24	124.86	128.60
5	A	1986	C	N3-C4-N4	6.24	122.37	118.00
5	A	2351	A	C4-C5-C6	6.24	120.12	117.00
5	A	2686	A	C4-C5-C6	6.24	120.12	117.00
5	A	108	A	C4-C5-C6	6.24	120.12	117.00
5	A	1765	G	C5-C6-O6	-6.24	124.86	128.60
5	A	1933	G	C5-C6-O6	-6.24	124.86	128.60
5	A	2793	A	C4-C5-C6	6.24	120.12	117.00
5	A	2362	A	C4-C5-C6	6.23	120.12	117.00
5	A	84	A	C4-C5-C6	6.23	120.12	117.00
5	A	952	A	C5-C6-N6	-6.23	118.71	123.70
5	A	2767	A	C4-C5-C6	6.23	120.12	117.00
5	A	33	U	O4'-C1'-N1	6.23	113.19	108.20
5	A	930	C	O4'-C1'-N1	6.23	113.18	108.20
5	A	951	C	N3-C4-N4	6.23	122.36	118.00
5	A	1416	G	C5-C6-O6	-6.23	124.86	128.60
5	A	1453	A	C4-C5-C6	6.23	120.11	117.00
5	A	1611	G	O4'-C1'-N9	6.23	113.19	108.20
5	A	2544	C	N3-C4-C5	-6.23	119.41	121.90
5	A	2759	C	N3-C4-N4	6.23	122.36	118.00
5	A	376	A	O4'-C1'-N9	6.23	113.18	108.20
5	A	867	A	C5-C6-N1	-6.23	114.58	117.70
6	B	39	A	C4-C5-C6	6.23	120.11	117.00
5	A	110	A	C5-C6-N6	-6.23	118.72	123.70
5	A	760	G	C5-C6-O6	-6.23	124.86	128.60
5	A	1222	A	C4-C5-C6	6.23	120.11	117.00
5	A	1258	A	C4-C5-C6	6.23	120.11	117.00
5	A	2083	A	C5-C6-N6	-6.23	118.72	123.70
5	A	2652	G	O4'-C1'-N9	6.23	113.18	108.20
5	A	2915	G	N3-C2-N2	6.23	124.26	119.90
5	A	1384	C	N3-C4-N4	6.22	122.36	118.00
5	A	2547	A	O4'-C1'-N9	6.22	113.18	108.20
5	A	2837	A	C5-C6-N6	-6.22	118.72	123.70
5	A	538	A	C5-C6-N1	-6.22	114.59	117.70
5	A	2395	A	C4-C5-C6	6.22	120.11	117.00
5	A	446	G	O4'-C1'-N9	6.22	113.18	108.20
5	A	2250	G	C5-C6-O6	-6.22	124.87	128.60
5	A	200	A	C4-C5-C6	6.22	120.11	117.00
5	A	278	A	C4-C5-C6	6.22	120.11	117.00
5	A	312	G	O4'-C4'-C3'	-6.22	97.78	104.00
5	A	967	G	O4'-C1'-N9	6.22	113.18	108.20
5	A	1075	A	C4-C5-C6	6.22	120.11	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1336	C	N3-C4-N4	6.22	122.35	118.00
5	A	1342	G	O4'-C1'-N9	6.22	113.17	108.20
5	A	1967	A	C5-C6-N6	-6.22	118.72	123.70
5	A	1291	A	C5-C6-N1	-6.22	114.59	117.70
5	A	1406	A	C5-C6-N6	-6.22	118.73	123.70
5	A	1723	A	C4-C5-C6	6.22	120.11	117.00
5	A	291	C	N3-C4-N4	6.22	122.35	118.00
5	A	1022	G	O4'-C1'-N9	6.22	113.17	108.20
5	A	1199	C	N3-C4-N4	6.22	122.35	118.00
5	A	1876	A	C4-C5-C6	6.22	120.11	117.00
5	A	2831	A	C4-C5-C6	6.22	120.11	117.00
5	A	422	C	N3-C4-C5	-6.21	119.41	121.90
5	A	1302	A	C4-C5-C6	6.21	120.11	117.00
5	A	970	A	O4'-C1'-N9	6.21	113.17	108.20
5	A	97	C	P-O5'-C5'	6.21	130.84	120.90
5	A	171	A	C4-C5-C6	6.21	120.11	117.00
5	A	288	C	N3-C4-N4	6.21	122.35	118.00
5	A	1123	A	C4-C5-C6	6.21	120.11	117.00
5	A	1395	C	N3-C4-N4	6.21	122.35	118.00
5	A	1821	G	C5-C6-O6	-6.21	124.87	128.60
5	A	2479	A	O4'-C1'-N9	6.21	113.17	108.20
5	A	2555	G	O4'-C1'-N9	6.21	113.17	108.20
5	A	352	G	C5-C6-O6	-6.21	124.87	128.60
5	A	527	A	C4-C5-C6	6.21	120.11	117.00
5	A	1222	A	C5-C6-N6	-6.21	118.73	123.70
5	A	1339	A	C5-C6-N6	-6.21	118.73	123.70
5	A	455	G	C5-C6-O6	-6.21	124.88	128.60
5	A	2406	A	O4'-C1'-N9	6.21	113.17	108.20
5	A	2920	C	N3-C4-N4	6.21	122.35	118.00
6	B	26	C	N3-C4-N4	6.21	122.34	118.00
5	A	1335	A	C4-C5-C6	6.21	120.10	117.00
5	A	1356	G	O4'-C1'-N9	6.21	113.17	108.20
5	A	2384	C	N3-C4-C5	-6.21	119.42	121.90
5	A	374	A	C5-C6-N1	-6.20	114.60	117.70
5	A	1037	C	N3-C4-N4	6.20	122.34	118.00
5	A	1158	G	C5-C6-O6	-6.20	124.88	128.60
5	A	1388	A	C4-C5-C6	6.20	120.10	117.00
5	A	1477	A	C5-C6-N1	-6.20	114.60	117.70
5	A	1767	A	C4-C5-C6	6.20	120.10	117.00
5	A	2310	C	N3-C4-N4	6.20	122.34	118.00
5	A	2490	C	N3-C4-C5	-6.20	119.42	121.90
5	A	2819	A	C4-C5-C6	6.20	120.10	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1049	G	O4'-C1'-N9	6.20	113.16	108.20
5	A	2132	A	C5-C6-N1	-6.20	114.60	117.70
5	A	153	C	C2-N3-C4	6.20	123.00	119.90
5	A	836	A	C4-C5-C6	6.20	120.10	117.00
5	A	953	G	O4'-C1'-N9	6.20	113.16	108.20
5	A	1078	A	C5-C6-N1	-6.20	114.60	117.70
5	A	1470	G	O4'-C1'-N9	6.20	113.16	108.20
5	A	1709	A	C4-C5-C6	6.20	120.10	117.00
5	A	1965	A	C4-C5-C6	6.20	120.10	117.00
5	A	2018	A	C4-C5-C6	6.20	120.10	117.00
5	A	2151	U	O4'-C1'-N1	6.20	113.16	108.20
5	A	2485	C	P-O5'-C5'	6.20	130.82	120.90
5	A	2893	A	C4-C5-C6	6.20	120.10	117.00
5	A	326	A	C4-C5-C6	6.20	120.10	117.00
5	A	646	A	C5-C6-N1	-6.20	114.60	117.70
5	A	1131	A	C5-C6-N6	-6.20	118.74	123.70
5	A	1208	G	C5-C6-O6	-6.20	124.88	128.60
5	A	2594	A	O4'-C1'-N9	6.20	113.16	108.20
5	A	2922	U	O4'-C1'-N1	6.20	113.16	108.20
5	A	803	C	N3-C4-N4	6.20	122.34	118.00
5	A	1067	A	C5-C6-N6	-6.20	118.74	123.70
5	A	1291	A	C5-C6-N6	-6.20	118.74	123.70
5	A	1404	A	C4-C5-C6	6.20	120.10	117.00
5	A	1412	A	C4-C5-C6	6.20	120.10	117.00
5	A	1858	A	C4-C5-C6	6.20	120.10	117.00
5	A	2670	A	C5-C6-N6	-6.20	118.74	123.70
5	A	2782	A	C5-C6-N6	-6.20	118.74	123.70
5	A	345	A	C4-C5-C6	6.19	120.10	117.00
5	A	634	A	C4-C5-C6	6.19	120.10	117.00
6	B	55	A	C5-C6-N6	-6.19	118.75	123.70
5	A	1774	A	C4-C5-C6	6.19	120.10	117.00
5	A	2441	A	P-O5'-C5'	6.19	130.81	120.90
5	A	2804	A	C4-C5-C6	6.19	120.10	117.00
5	A	870	A	C4-C5-C6	6.19	120.09	117.00
5	A	1140	U	O4'-C1'-N1	6.19	113.15	108.20
5	A	1968	U	O4'-C1'-N1	6.19	113.15	108.20
5	A	2191	A	C4-C5-C6	6.19	120.10	117.00
5	A	2289	C	N3-C4-N4	6.19	122.33	118.00
5	A	2362	A	C5-C6-N6	-6.19	118.75	123.70
5	A	2405	A	C4-C5-C6	6.19	120.09	117.00
6	B	58	C	N3-C4-N4	6.19	122.33	118.00
5	A	991	A	C4-C5-C6	6.19	120.09	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1349	G	O4'-C1'-N9	6.19	113.15	108.20
5	A	2801	C	N3-C4-N4	6.19	122.33	118.00
5	A	593	A	C4-C5-C6	6.19	120.09	117.00
5	A	1138	C	O4'-C1'-N1	6.19	113.15	108.20
5	A	2262	A	C4-C5-C6	6.19	120.09	117.00
5	A	1034	A	C5-C6-N6	-6.19	118.75	123.70
5	A	1132	A	C4-C5-C6	6.19	120.09	117.00
5	A	356	G	C5-C6-O6	-6.18	124.89	128.60
5	A	1818	A	C4-C5-C6	6.18	120.09	117.00
5	A	2273	U	P-O5'-C5'	6.18	130.79	120.90
5	A	2414	C	N3-C4-N4	6.18	122.33	118.00
5	A	403	C	N3-C4-N4	6.18	122.33	118.00
5	A	1697	A	C4-C5-C6	6.18	120.09	117.00
5	A	2695	C	N3-C4-N4	6.18	122.33	118.00
5	A	2700	A	C5-C6-N1	-6.18	114.61	117.70
5	A	2851	A	C4-C5-C6	6.18	120.09	117.00
5	A	52	A	C5-C6-N1	-6.18	114.61	117.70
5	A	272	C	O4'-C1'-N1	6.18	113.14	108.20
5	A	808	A	O4'-C1'-N9	6.18	113.14	108.20
5	A	1171	G	O4'-C1'-N9	6.18	113.14	108.20
5	A	1442	A	C4-C5-C6	6.18	120.09	117.00
5	A	1615	A	C4-C5-C6	6.18	120.09	117.00
5	A	1820	A	C4-C5-C6	6.18	120.09	117.00
6	B	88	C	N3-C4-C5	-6.18	119.43	121.90
5	A	1133	G	C5-C6-O6	-6.18	124.89	128.60
5	A	1405	A	O4'-C1'-N9	6.18	113.14	108.20
5	A	1454	C	N3-C4-N4	6.18	122.33	118.00
5	A	126	A	C5-C6-N1	-6.18	114.61	117.70
5	A	224	A	C5-C6-N1	-6.18	114.61	117.70
5	A	331	C	N3-C4-N4	6.18	122.32	118.00
5	A	582	A	C5-C6-N6	-6.18	118.76	123.70
5	A	605	G	O4'-C1'-N9	6.18	113.14	108.20
5	A	666	G	C5-C6-O6	-6.18	124.89	128.60
5	A	2339	A	C4-C5-C6	6.18	120.09	117.00
5	A	2646	C	N3-C4-N4	6.18	122.32	118.00
5	A	1627	A	C5-C6-N6	-6.17	118.76	123.70
5	A	2228	A	C5-C6-N6	-6.17	118.76	123.70
5	A	2718	U	O4'-C1'-N1	6.17	113.14	108.20
5	A	45	G	P-O3'-C3'	-6.17	112.29	119.70
5	A	104	C	N3-C4-N4	6.17	122.32	118.00
5	A	2500	A	C5-C6-N1	-6.17	114.61	117.70
6	B	47	C	N3-C4-N4	6.17	122.32	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2623	C	N3-C4-C5	-6.17	119.43	121.90
5	A	456	A	O4'-C1'-N9	6.17	113.13	108.20
5	A	657	G	C5-C6-O6	-6.17	124.90	128.60
5	A	683	A	C4-C5-C6	6.17	120.08	117.00
5	A	896	A	C5-C6-N1	-6.17	114.62	117.70
5	A	1255	G	C5-C6-O6	-6.17	124.90	128.60
5	A	1722	A	C4-C5-C6	6.17	120.08	117.00
5	A	2713	U	O4'-C1'-N1	6.17	113.14	108.20
5	A	2794	A	C4-C5-C6	6.17	120.08	117.00
5	A	903	G	C5-C6-O6	-6.17	124.90	128.60
5	A	1141	A	C4-C5-C6	6.17	120.08	117.00
5	A	1234	G	O4'-C1'-N9	6.17	113.13	108.20
5	A	1423	A	C4-C5-C6	6.17	120.08	117.00
5	A	1822	G	C5-C6-O6	-6.17	124.90	128.60
5	A	2165	A	C4-C5-C6	6.17	120.08	117.00
5	A	2606	A	O4'-C1'-N9	6.17	113.13	108.20
5	A	2671	G	O4'-C1'-N9	6.17	113.13	108.20
5	A	41	A	C4-C5-C6	6.17	120.08	117.00
5	A	1961	A	O4'-C1'-N9	6.17	113.13	108.20
5	A	2087	A	C4-C5-C6	6.17	120.08	117.00
5	A	2451	C	O4'-C1'-N1	6.17	113.13	108.20
5	A	281	A	C5-C6-N1	-6.16	114.62	117.70
5	A	1040	C	N3-C4-N4	6.16	122.31	118.00
5	A	1648	A	C4-C5-C6	6.16	120.08	117.00
5	A	2436	A	C4-C5-C6	6.16	120.08	117.00
5	A	1987	C	N3-C4-N4	6.16	122.31	118.00
5	A	2009	G	O4'-C1'-N9	6.16	113.13	108.20
5	A	2234	C	N3-C4-N4	6.16	122.31	118.00
6	B	74	G	O4'-C1'-N9	6.16	113.13	108.20
5	A	1462	G	C5-C6-O6	-6.16	124.90	128.60
5	A	2462	A	C4-C5-C6	6.16	120.08	117.00
5	A	14	A	C5-C6-N1	-6.16	114.62	117.70
5	A	198	A	O4'-C1'-N9	6.16	113.13	108.20
5	A	220	A	C4-C5-C6	6.16	120.08	117.00
5	A	927	G	O4'-C1'-N9	6.16	113.13	108.20
5	A	1014	A	O4'-C1'-N9	6.16	113.13	108.20
5	A	2017	C	N3-C4-N4	6.16	122.31	118.00
5	A	2719	A	P-O3'-C3'	6.16	127.09	119.70
5	A	2750	A	C4-C5-C6	6.16	120.08	117.00
5	A	308	C	N3-C4-C5	-6.16	119.44	121.90
5	A	2608	C	N3-C4-C5	-6.16	119.44	121.90
5	A	91	A	C4-C5-C6	6.16	120.08	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	503	C	O4'-C1'-N1	6.16	113.12	108.20
5	A	831	U	O4'-C1'-N1	6.16	113.12	108.20
5	A	1157	A	C4-C5-C6	6.16	120.08	117.00
5	A	1575	A	C4-C5-C6	6.16	120.08	117.00
5	A	1824	C	N3-C4-C5	-6.16	119.44	121.90
6	B	56	A	O4'-C1'-N9	6.16	113.12	108.20
5	A	1155	C	N3-C4-N4	6.15	122.31	118.00
5	A	1233	A	C4-C5-C6	6.15	120.08	117.00
5	A	2012	C	N3-C4-N4	6.15	122.31	118.00
5	A	2270	A	C5-C6-N6	-6.15	118.78	123.70
5	A	2792	G	N3-C2-N2	6.15	124.21	119.90
5	A	410	G	O4'-C1'-N9	6.15	113.12	108.20
5	A	594	C	O4'-C1'-N1	6.15	113.12	108.20
5	A	831	U	P-O3'-C3'	6.15	127.08	119.70
5	A	1135	G	C5-C6-O6	-6.15	124.91	128.60
5	A	1583	A	C4-C5-C6	6.15	120.08	117.00
5	A	1654	A	C4-C5-C6	6.15	120.08	117.00
5	A	2455	A	C4-C5-C6	6.15	120.08	117.00
5	A	2846	A	C4-C5-C6	6.15	120.08	117.00
5	A	2902	A	C4-C5-C6	6.15	120.08	117.00
5	A	108	A	C5-C6-N1	-6.15	114.62	117.70
5	A	388	A	C4-C5-C6	6.15	120.08	117.00
5	A	1021	A	C4-C5-C6	6.15	120.08	117.00
5	A	1070	G	C5-C6-O6	-6.15	124.91	128.60
5	A	1119	A	C4-C5-C6	6.15	120.08	117.00
5	A	2089	A	C4-C5-C6	6.15	120.08	117.00
5	A	2517	A	C4-C5-C6	6.15	120.08	117.00
5	A	2911	G	C5-C6-O6	-6.15	124.91	128.60
5	A	67	A	P-O5'-C5'	6.15	130.74	120.90
5	A	101	G	C5-C6-O6	-6.15	124.91	128.60
5	A	130	A	C4-C5-C6	6.15	120.07	117.00
5	A	369	A	C4-C5-C6	6.15	120.07	117.00
5	A	1056	A	C4-C5-C6	6.15	120.07	117.00
5	A	2479	A	C5-C6-N1	-6.15	114.63	117.70
5	A	441	C	N3-C4-N4	6.15	122.30	118.00
5	A	1649	C	N3-C4-N4	6.15	122.30	118.00
5	A	666	G	O4'-C1'-N9	6.14	113.12	108.20
5	A	887	C	N3-C4-C5	-6.14	119.44	121.90
5	A	1535	U	O4'-C1'-N1	6.14	113.11	108.20
5	A	2047	A	C4-C5-C6	6.14	120.07	117.00
5	A	2436	A	C5'-C4'-C3'	-6.14	106.17	116.00
5	A	789	C	N3-C4-N4	6.14	122.30	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	943	A	C4-C5-C6	6.14	120.07	117.00
5	A	1316	A	C4-C5-C6	6.14	120.07	117.00
5	A	1330	C	N3-C4-N4	6.14	122.30	118.00
5	A	1540	A	P-O5'-C5'	6.14	130.73	120.90
5	A	2315	A	C4-C5-C6	6.14	120.07	117.00
5	A	2387	A	C5-C6-N6	-6.14	118.79	123.70
5	A	1381	A	C4-C5-C6	6.14	120.07	117.00
5	A	1677	A	O4'-C1'-N9	6.14	113.11	108.20
5	A	2590	A	O4'-C1'-N9	6.14	113.11	108.20
5	A	158	C	N3-C4-N4	6.14	122.30	118.00
5	A	2779	A	C4-C5-C6	6.14	120.07	117.00
5	A	692	A	C4-C5-C6	6.14	120.07	117.00
5	A	1784	A	C4-C5-C6	6.14	120.07	117.00
5	A	2456	C	N3-C4-C5	-6.14	119.44	121.90
5	A	2742	C	N3-C4-N4	6.14	122.30	118.00
5	A	171	A	C5-C6-N6	-6.13	118.79	123.70
5	A	740	A	C4-C5-C6	6.13	120.07	117.00
5	A	1453	A	O4'-C1'-N9	6.13	113.11	108.20
5	A	1510	G	O4'-C1'-N9	6.13	113.11	108.20
5	A	2378	G	O4'-C1'-N9	6.13	113.11	108.20
5	A	2604	C	N3-C4-N4	6.13	122.29	118.00
5	A	255	G	O4'-C1'-N9	6.13	113.11	108.20
5	A	364	A	C4-C5-C6	6.13	120.07	117.00
5	A	967	G	C5-C6-O6	-6.13	124.92	128.60
5	A	1097	A	C4-C5-C6	6.13	120.07	117.00
5	A	339	A	O4'-C1'-N9	6.13	113.11	108.20
5	A	740	A	C5-C6-N6	-6.13	118.79	123.70
5	A	1258	A	C5-C6-N6	-6.13	118.80	123.70
5	A	2810	A	C4-C5-C6	6.13	120.07	117.00
6	B	45	C	N3-C4-C5	-6.13	119.45	121.90
5	A	785	C	N3-C4-N4	6.13	122.29	118.00
5	A	874	U	O4'-C1'-N1	6.13	113.10	108.20
5	A	990	C	N3-C4-C5	-6.13	119.45	121.90
5	A	1069	U	O4'-C1'-N1	6.13	113.10	108.20
5	A	2171	G	C5-C6-O6	-6.13	124.92	128.60
5	A	2236	C	N3-C4-N4	6.13	122.29	118.00
5	A	2601	A	O4'-C1'-N9	6.13	113.10	108.20
5	A	2691	A	O4'-C1'-N9	6.13	113.10	108.20
5	A	336	U	O4'-C1'-N1	6.13	113.10	108.20
5	A	362	C	N3-C4-C5	-6.13	119.45	121.90
5	A	669	C	N3-C4-C5	-6.13	119.45	121.90
5	A	825	G	O4'-C1'-N9	6.13	113.10	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2812	A	C5-C6-N1	-6.13	114.64	117.70
5	A	2120	U	O4'-C1'-N1	6.12	113.10	108.20
5	A	2493	C	N3-C4-N4	6.12	122.29	118.00
5	A	2724	U	O4'-C1'-N1	6.12	113.10	108.20
5	A	791	C	N3-C4-C5	-6.12	119.45	121.90
5	A	1580	A	C5-C6-N6	-6.12	118.80	123.70
5	A	1676	G	C5-C6-O6	-6.12	124.93	128.60
5	A	2117	A	C4-C5-C6	6.12	120.06	117.00
5	A	962	C	N3-C4-N4	6.12	122.28	118.00
5	A	2375	A	C4-C5-C6	6.12	120.06	117.00
5	A	1533	A	C4-C5-C6	6.12	120.06	117.00
5	A	226	A	C4-C5-C6	6.12	120.06	117.00
5	A	579	G	O4'-C1'-N9	6.12	113.10	108.20
5	A	889	A	O4'-C1'-N9	6.12	113.09	108.20
5	A	1078	A	C4-C5-C6	6.12	120.06	117.00
5	A	1793	G	O4'-C1'-N9	6.12	113.09	108.20
5	A	231	A	O4'-C1'-N9	6.12	113.09	108.20
5	A	276	C	N3-C4-N4	6.12	122.28	118.00
5	A	431	A	C4-C5-C6	6.12	120.06	117.00
5	A	1494	G	O4'-C1'-N9	6.12	113.09	108.20
5	A	2195	G	C5-C6-O6	-6.12	124.93	128.60
5	A	1005	A	C4-C5-C6	6.12	120.06	117.00
5	A	1025	A	C5-C6-N6	-6.12	118.81	123.70
5	A	1802	A	O4'-C1'-N9	6.12	113.09	108.20
5	A	2465	G	C5-C6-O6	-6.12	124.93	128.60
5	A	150	A	O4'-C1'-N9	6.11	113.09	108.20
5	A	445	C	N3-C4-N4	6.11	122.28	118.00
5	A	659	A	C4-C5-C6	6.11	120.06	117.00
5	A	851	A	O4'-C1'-N9	6.11	113.09	108.20
5	A	934	U	O4'-C1'-N1	6.11	113.09	108.20
5	A	1618	A	C5-C6-N1	-6.11	114.64	117.70
5	A	1997	G	C5-C6-O6	-6.11	124.93	128.60
5	A	2019	C	N3-C4-N4	6.11	122.28	118.00
5	A	2507	A	O4'-C1'-N9	6.11	113.09	108.20
5	A	829	A	C4-C5-C6	6.11	120.06	117.00
5	A	523	G	C5-C6-O6	-6.11	124.93	128.60
5	A	1171	G	P-O5'-C5'	6.11	130.68	120.90
5	A	2083	A	O4'-C1'-N9	6.11	113.09	108.20
5	A	2303	A	C5-C6-N6	-6.11	118.81	123.70
5	A	105	C	N3-C4-C5	-6.11	119.46	121.90
5	A	1809	A	C5-C6-N6	-6.11	118.81	123.70
5	A	2442	G	C5-C6-O6	-6.11	124.94	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2468	A	C4-C5-C6	6.11	120.06	117.00
5	A	131	C	N3-C4-N4	6.11	122.28	118.00
5	A	401	C	O4'-C1'-N1	6.11	113.09	108.20
5	A	637	A	C4-C5-C6	6.11	120.05	117.00
5	A	1367	G	P-O3'-C3'	6.11	127.03	119.70
5	A	1456	A	C4-C5-C6	6.11	120.05	117.00
5	A	1526	G	O4'-C1'-N9	6.11	113.09	108.20
5	A	1550	C	P-O3'-C3'	6.11	127.03	119.70
5	A	2594	A	C4-C5-C6	6.11	120.05	117.00
5	A	2910	C	C6-N1-C2	-6.11	117.86	120.30
5	A	330	A	C4-C5-C6	6.11	120.05	117.00
5	A	452	C	C2-N1-C1'	6.11	125.52	118.80
5	A	1388	A	O4'-C1'-N9	6.11	113.08	108.20
5	A	1657	C	N3-C4-N4	6.11	122.27	118.00
5	A	467	C	N3-C4-C5	-6.10	119.46	121.90
5	A	738	C	N3-C4-N4	6.10	122.27	118.00
5	A	20	C	N3-C4-N4	6.10	122.27	118.00
5	A	58	G	O4'-C1'-N9	6.10	113.08	108.20
5	A	438	A	C4-C5-C6	6.10	120.05	117.00
5	A	1317	G	O4'-C1'-N9	6.10	113.08	108.20
5	A	1671	G	O4'-C1'-N9	6.10	113.08	108.20
5	A	2059	A	C5-C6-N6	-6.10	118.82	123.70
5	A	2262	A	C5-C6-N6	-6.10	118.82	123.70
5	A	900	U	P-O3'-C3'	6.10	127.02	119.70
5	A	970	A	C5-C6-N1	-6.10	114.65	117.70
5	A	1333	C	N3-C4-N4	6.10	122.27	118.00
5	A	2464	A	C5-C6-N1	-6.10	114.65	117.70
5	A	167	U	O4'-C1'-N1	6.10	113.08	108.20
5	A	773	G	N3-C2-N2	6.10	124.17	119.90
5	A	1174	A	C4-C5-C6	6.10	120.05	117.00
5	A	2364	A	C5-C6-N6	-6.10	118.82	123.70
5	A	61	A	C5-C6-N6	-6.10	118.82	123.70
5	A	90	A	C4-C5-C6	6.10	120.05	117.00
5	A	1480	A	O4'-C1'-N9	6.10	113.08	108.20
5	A	1600	G	O4'-C1'-N9	6.10	113.08	108.20
5	A	2211	G	O4'-C1'-N9	6.10	113.08	108.20
5	A	2739	C	N3-C4-C5	-6.10	119.46	121.90
5	A	82	G	C5-C6-O6	-6.09	124.94	128.60
5	A	376	A	C4-C5-C6	6.09	120.05	117.00
5	A	2216	A	O4'-C1'-N9	6.09	113.08	108.20
5	A	2317	A	C5-C6-N6	-6.09	118.82	123.70
5	A	1581	A	C5-C6-N6	-6.09	118.83	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2202	A	C5-C6-N6	-6.09	118.83	123.70
5	A	105	C	N3-C4-N4	6.09	122.26	118.00
5	A	815	G	O4'-C1'-N9	6.09	113.07	108.20
5	A	1101	G	C5-C6-O6	-6.09	124.94	128.60
5	A	1145	G	P-O5'-C5'	6.09	130.65	120.90
5	A	1731	C	N3-C4-C5	-6.09	119.46	121.90
5	A	329	A	O4'-C1'-N9	6.09	113.07	108.20
5	A	812	G	O4'-C1'-N9	6.09	113.07	108.20
5	A	2568	C	N3-C4-N4	6.09	122.26	118.00
5	A	2670	A	C4-C5-C6	6.09	120.05	117.00
5	A	2710	C	C6-N1-C1'	-6.09	113.49	120.80
5	A	2912	A	C4-C5-C6	6.09	120.04	117.00
5	A	625	C	N3-C4-N4	6.09	122.26	118.00
5	A	2124	A	C5-C6-N1	-6.09	114.66	117.70
5	A	2769	A	C4-C5-C6	6.09	120.04	117.00
5	A	368	G	C5-C6-O6	-6.09	124.95	128.60
5	A	552	G	O4'-C1'-N9	6.09	113.07	108.20
5	A	630	A	P-O5'-C5'	6.09	130.64	120.90
5	A	906	G	C4'-C3'-C2'	-6.09	96.51	102.60
5	A	2162	G	C4-N9-C1'	6.09	134.41	126.50
5	A	2176	A	C5-C6-N1	-6.09	114.66	117.70
5	A	2807	A	O4'-C1'-N9	6.09	113.07	108.20
5	A	570	C	N3-C4-C5	-6.08	119.47	121.90
5	A	2276	A	C5-C6-N6	-6.08	118.83	123.70
5	A	888	A	C5-C6-N6	-6.08	118.83	123.70
5	A	1357	A	C5-C6-N6	-6.08	118.83	123.70
5	A	2201	U	O4'-C1'-N1	6.08	113.07	108.20
5	A	2220	A	C4-C5-C6	6.08	120.04	117.00
5	A	480	C	N3-C4-C5	-6.08	119.47	121.90
5	A	1094	A	C5-C6-N6	-6.08	118.83	123.70
5	A	1693	C	N3-C4-C5	-6.08	119.47	121.90
5	A	2389	A	C5-C6-N1	-6.08	114.66	117.70
5	A	2446	C	N3-C4-N4	6.08	122.26	118.00
5	A	2454	A	C5-C6-N1	-6.08	114.66	117.70
5	A	560	A	C5-C6-N6	-6.08	118.84	123.70
5	A	813	G	O4'-C1'-N9	6.08	113.06	108.20
5	A	856	G	O4'-C1'-N9	6.08	113.06	108.20
5	A	1545	C	N3-C4-N4	6.08	122.26	118.00
5	A	2358	A	C4-C5-C6	6.08	120.04	117.00
5	A	258	A	C4-C5-C6	6.08	120.04	117.00
5	A	861	C	N3-C4-C5	-6.08	119.47	121.90
5	A	1162	C	N3-C4-N4	6.08	122.26	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1393	A	C4-C5-C6	6.08	120.04	117.00
5	A	1776	A	C5-C6-N1	-6.08	114.66	117.70
5	A	2327	A	C4-C5-C6	6.08	120.04	117.00
5	A	2384	C	C6-N1-C2	-6.08	117.87	120.30
5	A	2885	A	C5-C6-N1	-6.08	114.66	117.70
5	A	2208	C	C2-N1-C1'	6.08	125.48	118.80
5	A	28	A	O4'-C1'-N9	6.08	113.06	108.20
5	A	625	C	N3-C4-C5	-6.08	119.47	121.90
5	A	1685	A	C5-C6-N1	-6.08	114.66	117.70
5	A	1859	C	N3-C4-C5	-6.08	119.47	121.90
5	A	2178	C	O4'-C1'-N1	6.08	113.06	108.20
5	A	2459	A	O4'-C1'-N9	6.08	113.06	108.20
5	A	2892	G	O4'-C1'-N9	6.08	113.06	108.20
5	A	343	A	C5-C6-N6	-6.07	118.84	123.70
5	A	1326	A	C5-C6-N1	-6.07	114.66	117.70
5	A	1497	G	C4'-C3'-C2'	6.07	108.67	102.60
5	A	294	G	O4'-C1'-N9	6.07	113.06	108.20
5	A	449	A	C4-C5-C6	6.07	120.04	117.00
5	A	684	G	O4'-C1'-N9	6.07	113.06	108.20
5	A	2102	C	P-O5'-C5'	6.07	130.62	120.90
5	A	2173	G	C5-C6-O6	-6.07	124.96	128.60
5	A	117	A	C4-C5-C6	6.07	120.03	117.00
5	A	975	C	N3-C4-C5	-6.07	119.47	121.90
5	A	980	C	O4'-C1'-N1	6.07	113.06	108.20
5	A	1794	C	N3-C4-N4	6.07	122.25	118.00
5	A	1814	A	C4-C5-C6	6.07	120.03	117.00
5	A	2100	A	C4-C5-C6	6.07	120.03	117.00
5	A	2541	C	N3-C4-N4	6.07	122.25	118.00
5	A	1251	U	C2-N1-C1'	6.07	124.98	117.70
5	A	2837	A	C5-C6-N1	-6.07	114.67	117.70
5	A	1357	A	C5-C6-N1	-6.07	114.67	117.70
5	A	1580	A	C5-C6-N1	-6.07	114.67	117.70
5	A	1622	C	N3-C4-C5	-6.07	119.47	121.90
5	A	1817	C	N3-C4-C5	-6.07	119.47	121.90
5	A	2542	A	C5-C6-N1	-6.07	114.67	117.70
5	A	2675	C	N3-C4-N4	6.07	122.25	118.00
5	A	582	A	C4-C5-C6	6.07	120.03	117.00
5	A	622	A	C5-C6-N1	-6.07	114.67	117.70
5	A	707	G	O4'-C1'-N9	6.07	113.05	108.20
5	A	1161	A	C4-C5-C6	6.07	120.03	117.00
5	A	1998	A	C4-C5-C6	6.07	120.03	117.00
6	B	97	A	C5-C6-N1	-6.07	114.67	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	364	A	O4'-C1'-N9	6.06	113.05	108.20
5	A	783	C	N3-C4-N4	6.06	122.25	118.00
5	A	1818	A	C5-C6-N6	-6.06	118.85	123.70
5	A	2857	U	O4'-C1'-N1	6.06	113.05	108.20
5	A	592	A	C4-C5-C6	6.06	120.03	117.00
5	A	1059	A	O4'-C1'-N9	6.06	113.05	108.20
5	A	2863	G	C5-C6-O6	-6.06	124.96	128.60
5	A	17	G	O4'-C1'-N9	6.06	113.05	108.20
5	A	311	U	C2-N1-C1'	6.06	124.97	117.70
5	A	1454	C	N3-C4-C5	-6.06	119.48	121.90
5	A	1555	A	C4-C5-C6	6.06	120.03	117.00
5	A	1695	A	C5-C6-N1	-6.06	114.67	117.70
5	A	1727	A	C5-C6-N6	-6.06	118.85	123.70
5	A	1998	A	O4'-C1'-N9	6.06	113.05	108.20
5	A	999	A	C5-C6-N1	-6.06	114.67	117.70
5	A	1268	G	O4'-C1'-N9	6.06	113.05	108.20
5	A	1774	A	C5-C6-N1	-6.06	114.67	117.70
5	A	2025	C	N3-C4-N4	6.06	122.24	118.00
5	A	2063	U	O4'-C1'-N1	6.06	113.05	108.20
5	A	2417	A	O4'-C1'-N9	6.06	113.05	108.20
5	A	736	A	C4-C5-C6	6.06	120.03	117.00
5	A	1325	A	C5-C6-N1	-6.06	114.67	117.70
5	A	1955	U	P-O3'-C3'	6.06	126.97	119.70
5	A	2356	A	C4-C5-C6	6.06	120.03	117.00
5	A	2631	A	C4-C5-C6	6.06	120.03	117.00
5	A	2689	A	C4-C5-C6	6.06	120.03	117.00
5	A	204	C	N3-C4-N4	6.05	122.24	118.00
5	A	247	A	P-O3'-C3'	6.05	126.97	119.70
5	A	555	C	O4'-C1'-N1	6.05	113.04	108.20
5	A	846	G	C5-C6-O6	-6.05	124.97	128.60
5	A	1450	C	N3-C4-N4	6.05	122.24	118.00
5	A	2241	A	C5-C6-N6	-6.05	118.86	123.70
5	A	774	A	O4'-C1'-N9	6.05	113.04	108.20
5	A	1073	A	O4'-C1'-N9	6.05	113.04	108.20
5	A	2844	A	C5-C6-N1	-6.05	114.67	117.70
5	A	179	A	O4'-C1'-N9	6.05	113.04	108.20
5	A	229	A	C4-C5-C6	6.05	120.03	117.00
5	A	363	C	N3-C4-N4	6.05	122.23	118.00
5	A	1931	C	O4'-C1'-N1	6.05	113.04	108.20
5	A	2357	A	C5-C6-N1	-6.05	114.67	117.70
5	A	2735	A	C4-C5-C6	6.05	120.03	117.00
6	B	6	U	O4'-C1'-N1	6.05	113.04	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	306	C	N3-C4-C5	-6.05	119.48	121.90
5	A	770	A	C4-C5-C6	6.05	120.03	117.00
5	A	1098	C	N3-C4-N4	6.05	122.23	118.00
5	A	1689	U	O4'-C1'-N1	6.05	113.04	108.20
5	A	2585	C	N3-C4-N4	6.05	122.23	118.00
6	B	34	C	N3-C4-N4	6.05	122.23	118.00
5	A	518	A	O4'-C1'-N9	6.05	113.04	108.20
5	A	910	A	C5-C6-N1	-6.05	114.68	117.70
5	A	958	A	C4-C5-C6	6.05	120.02	117.00
5	A	203	U	O4'-C1'-N1	6.05	113.04	108.20
5	A	271	C	N3-C4-N4	6.05	122.23	118.00
5	A	738	C	N3-C4-C5	-6.05	119.48	121.90
5	A	799	A	C4-C5-C6	6.05	120.02	117.00
5	A	1250	G	C4'-C3'-C2'	6.05	108.65	102.60
5	A	1272	G	O4'-C1'-N9	6.05	113.04	108.20
5	A	1395	C	O4'-C1'-N1	6.05	113.04	108.20
5	A	1545	C	N3-C4-C5	-6.05	119.48	121.90
5	A	1638	A	C4-C5-C6	6.05	120.02	117.00
5	A	2449	C	N3-C4-N4	6.05	122.23	118.00
5	A	2525	C	N3-C4-N4	6.05	122.23	118.00
5	A	2549	C	O4'-C1'-N1	6.05	113.04	108.20
5	A	2620	C	N3-C4-N4	6.05	122.23	118.00
5	A	95	A	C5-C6-N1	-6.04	114.68	117.70
5	A	1661	A	C5-C6-N6	-6.04	118.86	123.70
5	A	1877	A	O4'-C1'-N9	6.04	113.04	108.20
5	A	2143	A	C5-C6-N1	-6.04	114.68	117.70
5	A	44	A	C4-C5-C6	6.04	120.02	117.00
5	A	207	A	C4-C5-C6	6.04	120.02	117.00
5	A	2618	A	C4-C5-C6	6.04	120.02	117.00
5	A	2694	A	C5-C6-N6	-6.04	118.87	123.70
5	A	21	A	C5-C6-N6	-6.04	118.87	123.70
5	A	339	A	C5-C6-N1	-6.04	114.68	117.70
5	A	1059	A	C5-C6-N1	-6.04	114.68	117.70
5	A	1875	G	C5-C6-O6	-6.04	124.97	128.60
5	A	1982	A	C4-C5-C6	6.04	120.02	117.00
5	A	2490	C	N3-C4-N4	6.04	122.23	118.00
5	A	757	C	N3-C4-N4	6.04	122.23	118.00
5	A	1950	G	O4'-C1'-N9	6.04	113.03	108.20
5	A	383	U	O4'-C1'-N1	6.04	113.03	108.20
5	A	419	G	N3-C2-N2	6.04	124.13	119.90
5	A	467	C	C6-N1-C2	-6.04	117.89	120.30
5	A	907	U	C6-N1-C1'	-6.04	112.75	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1014	A	C4-C5-C6	6.04	120.02	117.00
5	A	1108	G	O4'-C1'-N9	6.04	113.03	108.20
5	A	1129	U	O4'-C1'-N1	6.04	113.03	108.20
5	A	176	A	C4-C5-C6	6.04	120.02	117.00
5	A	1622	C	N3-C4-N4	6.04	122.23	118.00
5	A	394	U	O4'-C1'-N1	6.04	113.03	108.20
5	A	2383	A	C5-C6-N6	-6.04	118.87	123.70
5	A	2623	C	N3-C4-N4	6.04	122.22	118.00
5	A	278	A	C5-C6-N6	-6.03	118.87	123.70
5	A	281	A	C5-C6-N6	-6.03	118.87	123.70
5	A	742	G	O4'-C1'-N9	6.03	113.03	108.20
5	A	1032	C	N3-C4-N4	6.03	122.22	118.00
5	A	1608	A	C5-C6-N6	-6.03	118.87	123.70
5	A	868	A	P-O5'-C5'	6.03	130.55	120.90
5	A	1921	C	C6-N1-C1'	-6.03	113.56	120.80
5	A	2007	A	C5-C6-N6	-6.03	118.88	123.70
5	A	2799	C	N3-C4-C5	-6.03	119.49	121.90
5	A	1000	G	O4'-C1'-N9	6.03	113.02	108.20
5	A	1173	A	C4-C5-C6	6.03	120.02	117.00
5	A	1799	G	O4'-C1'-N9	6.03	113.02	108.20
5	A	2034	A	C5-C6-N6	-6.03	118.88	123.70
5	A	2769	A	C5-C6-N6	-6.03	118.88	123.70
5	A	2800	C	N3-C4-N4	6.03	122.22	118.00
5	A	38	A	C5-C6-N1	-6.03	114.69	117.70
5	A	2207	C	N3-C4-N4	6.03	122.22	118.00
5	A	2612	G	C5-C6-O6	-6.03	124.98	128.60
6	B	63	C	N3-C4-C5	-6.03	119.49	121.90
5	A	1284	A	C4-C5-C6	6.03	120.01	117.00
5	A	1293	A	C4-C5-C6	6.03	120.01	117.00
5	A	1445	A	C4-C5-C6	6.03	120.01	117.00
5	A	1473	A	C4-C5-C6	6.03	120.01	117.00
5	A	2679	C	N3-C4-N4	6.03	122.22	118.00
5	A	2834	A	C5'-C4'-O4'	6.03	116.33	109.10
5	A	722	A	C5-C6-N6	-6.02	118.88	123.70
5	A	732	A	C5-C6-N1	-6.02	114.69	117.70
5	A	632	U	P-O5'-C5'	6.02	130.53	120.90
5	A	1405	A	C4-C5-C6	6.02	120.01	117.00
5	A	2854	A	C4-C5-C6	6.02	120.01	117.00
5	A	2887	A	C4-C5-C6	6.02	120.01	117.00
5	A	247	A	C4-C5-C6	6.02	120.01	117.00
5	A	876	A	C4-C5-C6	6.02	120.01	117.00
5	A	1473	A	C5-C6-N1	-6.02	114.69	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	225	A	C5-C6-N1	-6.02	114.69	117.70
5	A	821	A	C4-C5-C6	6.02	120.01	117.00
5	A	1204	C	O4'-C1'-N1	6.02	113.02	108.20
5	A	1256	C	N3-C4-C5	-6.02	119.49	121.90
5	A	2132	A	C4-C5-C6	6.02	120.01	117.00
5	A	2643	A	C4-C5-C6	6.02	120.01	117.00
5	A	1802	A	C4-C5-C6	6.02	120.01	117.00
5	A	2546	C	N3-C4-N4	6.02	122.21	118.00
5	A	2853	C	N3-C4-N4	6.02	122.21	118.00
5	A	373	A	C4'-C3'-C2'	-6.02	96.58	102.60
5	A	1108	G	C5-C6-O6	-6.02	124.99	128.60
5	A	1812	A	C4-C5-C6	6.02	120.01	117.00
5	A	2379	C	P-O5'-C5'	6.02	130.53	120.90
5	A	491	C	N3-C4-N4	6.01	122.21	118.00
5	A	1643	C	N3-C4-C5	-6.01	119.49	121.90
5	A	2445	C	N3-C4-C5	-6.01	119.49	121.90
6	B	20	A	O4'-C1'-N9	6.01	113.01	108.20
5	A	2167	C	O4'-C1'-N1	6.01	113.01	108.20
5	A	2380	G	O4'-C1'-N9	6.01	113.01	108.20
5	A	88	G	C5-C6-O6	-6.01	124.99	128.60
5	A	139	A	C4-C5-C6	6.01	120.01	117.00
5	A	1486	G	O4'-C1'-N9	6.01	113.01	108.20
5	A	1490	A	C4-C5-C6	6.01	120.00	117.00
5	A	1534	A	C4-C5-C6	6.01	120.00	117.00
5	A	1685	A	C4-C5-C6	6.01	120.00	117.00
5	A	1743	A	C4-C5-C6	6.01	120.01	117.00
5	A	1947	A	C5-C6-N6	-6.01	118.89	123.70
9	E	22	SER	N-CA-CB	6.01	119.52	110.50
5	A	240	C	N3-C4-N4	6.01	122.21	118.00
5	A	355	A	C4-C5-C6	6.01	120.00	117.00
5	A	1014	A	C5-C6-N1	-6.01	114.69	117.70
5	A	1117	G	C5-C6-O6	-6.01	124.99	128.60
5	A	1224	A	C5-C6-N6	-6.01	118.89	123.70
5	A	2119	A	C5-C6-N6	-6.01	118.89	123.70
5	A	219	A	C4-C5-C6	6.01	120.00	117.00
5	A	2618	A	O4'-C1'-N9	6.01	113.01	108.20
5	A	438	A	O4'-C1'-N9	6.01	113.01	108.20
5	A	1202	A	C4-C5-C6	6.01	120.00	117.00
5	A	2776	G	C5-C6-O6	-6.01	125.00	128.60
5	A	2868	G	O4'-C1'-N9	6.01	113.01	108.20
5	A	178	A	C5-C6-N6	-6.00	118.90	123.70
5	A	622	A	C5-C6-N6	-6.00	118.90	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1686	A	C5-C6-N1	-6.00	114.70	117.70
5	A	1776	A	C5-C6-N6	-6.00	118.90	123.70
5	A	2748	G	O4'-C1'-N9	6.00	113.00	108.20
6	B	47	C	N3-C4-C5	-6.00	119.50	121.90
5	A	893	A	C4-C5-C6	6.00	120.00	117.00
5	A	1142	A	C4-C5-C6	6.00	120.00	117.00
5	A	1166	G	O4'-C1'-N9	6.00	113.00	108.20
5	A	2018	A	O4'-C1'-N9	6.00	113.00	108.20
5	A	228	C	N3-C4-C5	-6.00	119.50	121.90
5	A	650	U	O4'-C1'-N1	6.00	113.00	108.20
5	A	1691	A	C4-C5-C6	6.00	120.00	117.00
5	A	2536	C	N3-C4-N4	6.00	122.20	118.00
5	A	2910	C	N3-C4-C5	-6.00	119.50	121.90
5	A	641	C	N3-C4-C5	-6.00	119.50	121.90
5	A	652	A	C4-C5-C6	6.00	120.00	117.00
5	A	841	A	C4-C5-C6	6.00	120.00	117.00
5	A	1113	A	C4-C5-C6	6.00	120.00	117.00
5	A	1305	A	C4-C5-C6	6.00	120.00	117.00
5	A	2612	G	O4'-C1'-N9	6.00	113.00	108.20
5	A	2902	A	C5-C6-N1	-6.00	114.70	117.70
5	A	183	A	C5-C6-N6	-6.00	118.90	123.70
5	A	744	C	N3-C4-C5	-6.00	119.50	121.90
5	A	2083	A	C4-C5-C6	6.00	120.00	117.00
5	A	2563	C	N3-C4-C5	-6.00	119.50	121.90
5	A	464	C	N3-C4-C5	-6.00	119.50	121.90
5	A	690	A	C5-C6-N6	-6.00	118.90	123.70
5	A	1006	A	O4'-C1'-N9	6.00	113.00	108.20
5	A	2688	G	O4'-C1'-N9	6.00	113.00	108.20
5	A	2909	U	C5'-C4'-O4'	6.00	116.29	109.10
5	A	143	G	O4'-C1'-N9	5.99	113.00	108.20
5	A	856	G	C5-C6-O6	-5.99	125.00	128.60
5	A	1585	A	C4-C5-C6	5.99	120.00	117.00
5	A	2647	G	O4'-C1'-N9	5.99	112.99	108.20
5	A	2722	A	C4-C5-C6	5.99	120.00	117.00
5	A	2804	A	C5-C6-N1	-5.99	114.70	117.70
5	A	798	A	C4-C5-C6	5.99	120.00	117.00
5	A	399	C	N3-C4-N4	5.99	122.19	118.00
5	A	587	C	N3-C4-N4	5.99	122.19	118.00
5	A	1266	A	C4-C5-C6	5.99	120.00	117.00
5	A	2215	U	O4'-C1'-N1	5.99	112.99	108.20
5	A	48	G	O4'-C1'-N9	5.99	112.99	108.20
5	A	122	G	C5-C6-O6	-5.99	125.01	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	132	C	N3-C4-N4	5.99	122.19	118.00
5	A	213	C	N3-C4-C5	-5.99	119.50	121.90
5	A	308	C	N3-C4-N4	5.99	122.19	118.00
5	A	987	A	O4'-C1'-N9	5.99	112.99	108.20
5	A	1097	A	C5-C6-N1	-5.99	114.71	117.70
5	A	2296	A	C4-C5-C6	5.99	120.00	117.00
5	A	2358	A	C5-C6-N6	-5.99	118.91	123.70
6	B	11	A	O4'-C1'-N9	5.99	112.99	108.20
6	B	105	A	C4-C5-C6	5.99	119.99	117.00
5	A	946	G	C5-C6-O6	-5.99	125.01	128.60
5	A	1664	G	O4'-C1'-N9	5.99	112.99	108.20
5	A	1971	C	P-O5'-C5'	5.99	130.48	120.90
5	A	2859	G	C5-C6-O6	-5.99	125.01	128.60
5	A	723	A	C4-C5-C6	5.99	119.99	117.00
5	A	1618	A	C4-C5-C6	5.99	119.99	117.00
5	A	2090	G	O4'-C1'-N9	5.99	112.99	108.20
5	A	83	G	P-O3'-C3'	5.98	126.88	119.70
5	A	812	G	P-O5'-C5'	5.98	130.47	120.90
5	A	1483	A	C4-C5-C6	5.98	119.99	117.00
5	A	442	C	N3-C4-N4	5.98	122.19	118.00
5	A	697	G	P-O5'-C5'	5.98	130.47	120.90
5	A	904	A	C5-C6-N1	-5.98	114.71	117.70
5	A	1741	G	C5-C6-O6	-5.98	125.01	128.60
5	A	2517	A	C5-C6-N1	-5.98	114.71	117.70
5	A	130	A	C5-C6-N6	-5.98	118.92	123.70
5	A	486	A	C4-C5-C6	5.98	119.99	117.00
5	A	1820	A	C5-C6-N6	-5.98	118.92	123.70
5	A	1925	A	C5-C6-N1	-5.98	114.71	117.70
5	A	2481	C	N3-C4-N4	5.98	122.19	118.00
5	A	2668	A	C4-C5-C6	5.98	119.99	117.00
5	A	462	A	C5-C6-N1	-5.98	114.71	117.70
5	A	668	G	O4'-C1'-N9	5.98	112.98	108.20
5	A	1189	A	C5-C6-N6	-5.98	118.92	123.70
5	A	2189	G	C5-C6-O6	-5.98	125.01	128.60
5	A	2762	A	C5-C6-N6	-5.98	118.92	123.70
5	A	92	G	O4'-C1'-N9	5.98	112.98	108.20
5	A	222	A	C5-C6-N6	-5.98	118.92	123.70
5	A	524	A	O4'-C1'-N9	5.98	112.98	108.20
5	A	526	A	C4-C5-C6	5.98	119.99	117.00
5	A	1608	A	C4-C5-C6	5.98	119.99	117.00
5	A	1731	C	N3-C4-N4	5.98	122.18	118.00
5	A	1797	A	C4-C5-C6	5.98	119.99	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1956	A	C4-C5-C6	5.98	119.99	117.00
5	A	162	A	C4-C5-C6	5.97	119.99	117.00
5	A	185	A	O4'-C1'-N9	5.97	112.98	108.20
5	A	1114	G	C1'-O4'-C4'	-5.97	105.12	109.90
5	A	1520	A	C4-C5-C6	5.97	119.99	117.00
5	A	1851	G	O4'-C1'-N9	5.97	112.98	108.20
5	A	485	U	O4'-C1'-N1	5.97	112.98	108.20
5	A	719	C	N3-C4-N4	5.97	122.18	118.00
5	A	733	U	C2-N1-C1'	5.97	124.87	117.70
5	A	1025	A	O4'-C1'-N9	5.97	112.98	108.20
5	A	1065	U	P-O3'-C3'	5.97	126.87	119.70
5	A	2155	A	O4'-C1'-N9	5.97	112.98	108.20
5	A	2402	A	C5-C6-N6	-5.97	118.92	123.70
5	A	2663	A	C5-C6-N1	-5.97	114.71	117.70
6	B	117	A	C4-C5-C6	5.97	119.99	117.00
5	A	2841	C	N3-C4-C5	-5.97	119.51	121.90
5	A	94	A	C5-C6-N6	-5.97	118.92	123.70
5	A	428	A	O4'-C1'-N9	5.97	112.98	108.20
5	A	1000	G	C5-C6-O6	-5.97	125.02	128.60
5	A	1718	G	O4'-C1'-N9	5.97	112.98	108.20
5	A	1719	G	C5-C6-O6	-5.97	125.02	128.60
5	A	2343	A	C4-C5-C6	5.97	119.98	117.00
5	A	2700	A	C4-C5-C6	5.97	119.98	117.00
5	A	2861	U	O4'-C1'-N1	5.97	112.98	108.20
5	A	2893	A	O4'-C1'-N9	5.97	112.98	108.20
5	A	2900	A	C4-C5-C6	5.97	119.98	117.00
5	A	2904	A	C4-C5-C6	5.97	119.98	117.00
5	A	716	G	C8-N9-C1'	-5.97	119.24	127.00
5	A	2505	A	C4-C5-C6	5.97	119.98	117.00
5	A	2657	C	C6-N1-C1'	-5.97	113.64	120.80
6	B	20	A	C5-C6-N1	-5.97	114.72	117.70
5	A	1727	A	C4-C5-C6	5.97	119.98	117.00
5	A	2000	A	C4-C5-C6	5.97	119.98	117.00
5	A	2087	A	O4'-C1'-N9	5.97	112.97	108.20
5	A	2457	G	O4'-C1'-N9	5.97	112.97	108.20
5	A	1534	A	C5-C6-N6	-5.96	118.93	123.70
5	A	1744	G	O4'-C1'-N9	5.96	112.97	108.20
5	A	2091	A	C4-C5-C6	5.96	119.98	117.00
5	A	2351	A	C5-C6-N6	-5.96	118.93	123.70
5	A	2629	A	C4-C5-C6	5.96	119.98	117.00
5	A	1590	C	N3-C4-C5	-5.96	119.52	121.90
5	A	2003	C	N3-C4-N4	5.96	122.17	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	108	A	C5-C6-N6	-5.96	118.93	123.70
5	A	2170	A	C4-C5-C6	5.96	119.98	117.00
5	A	2238	C	N3-C4-N4	5.96	122.17	118.00
5	A	2444	G	N3-C2-N2	5.96	124.07	119.90
5	A	235	G	P-O3'-C3'	5.96	126.85	119.70
5	A	999	A	C4-C5-C6	5.96	119.98	117.00
5	A	324	A	C5-C6-N6	-5.96	118.93	123.70
5	A	847	A	C5-C6-N1	-5.96	114.72	117.70
5	A	1343	C	N3-C4-C5	-5.96	119.52	121.90
5	A	1369	C	O4'-C1'-N1	5.96	112.97	108.20
5	A	1568	G	O4'-C1'-N9	5.96	112.97	108.20
5	A	2461	A	C4-C5-C6	5.96	119.98	117.00
5	A	2658	A	C5-C6-N6	-5.96	118.93	123.70
5	A	978	A	C4-C5-C6	5.96	119.98	117.00
5	A	984	G	O4'-C1'-N9	5.96	112.97	108.20
5	A	1464	A	C4-C5-C6	5.96	119.98	117.00
5	A	1809	A	P-O3'-C3'	5.96	126.85	119.70
5	A	2147	U	O4'-C1'-N1	5.96	112.97	108.20
5	A	2312	C	N3-C4-N4	5.96	122.17	118.00
5	A	275	A	C4-C5-C6	5.96	119.98	117.00
5	A	2183	G	O4'-C1'-N9	5.96	112.96	108.20
5	A	2629	A	C5-C6-N1	-5.96	114.72	117.70
5	A	2756	G	O4'-C1'-N9	5.96	112.96	108.20
5	A	2570	A	C5-C6-N6	-5.95	118.94	123.70
5	A	2740	A	C4-C5-C6	5.95	119.98	117.00
5	A	136	C	N3-C4-N4	5.95	122.17	118.00
5	A	1031	C	N3-C4-N4	5.95	122.17	118.00
6	B	41	C	N3-C4-N4	5.95	122.17	118.00
5	A	94	A	C4-C5-C6	5.95	119.97	117.00
5	A	201	C	N3-C4-C5	-5.95	119.52	121.90
5	A	461	C	P-O5'-C5'	5.95	130.42	120.90
5	A	655	C	N3-C4-C5	-5.95	119.52	121.90
5	A	665	G	N3-C2-N2	5.95	124.06	119.90
5	A	753	A	O4'-C1'-N9	5.95	112.96	108.20
5	A	1296	G	C5-C6-O6	-5.95	125.03	128.60
5	A	1552	C	N3-C4-N4	5.95	122.17	118.00
5	A	2071	A	C4-C5-C6	5.95	119.98	117.00
5	A	2074	C	N3-C4-N4	5.95	122.17	118.00
6	B	68	C	N3-C4-N4	5.95	122.17	118.00
6	B	112	C	N3-C4-C5	-5.95	119.52	121.90
5	A	290	U	O4'-C1'-N1	5.95	112.96	108.20
5	A	554	U	C2-N1-C1'	5.95	124.84	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1028	C	N3-C4-N4	5.95	122.16	118.00
5	A	1067	A	C8-N9-C4	-5.95	103.42	105.80
5	A	1071	G	P-O5'-C5'	5.95	130.42	120.90
5	A	1425	C	N3-C4-C5	-5.95	119.52	121.90
5	A	1440	G	P-O5'-C5'	5.95	130.42	120.90
5	A	2172	C	N3-C4-N4	5.95	122.16	118.00
6	B	92	C	N3-C4-C5	-5.95	119.52	121.90
5	A	419	G	O4'-C1'-N9	5.95	112.96	108.20
5	A	925	A	C5-C6-N1	-5.95	114.73	117.70
6	B	109	C	N3-C4-C5	-5.95	119.52	121.90
5	A	55	G	O4'-C1'-N9	5.95	112.96	108.20
5	A	102	A	O4'-C1'-N9	5.95	112.96	108.20
5	A	441	C	N3-C4-C5	-5.95	119.52	121.90
5	A	599	G	O4'-C1'-N9	5.95	112.96	108.20
5	A	1721	A	C4-C5-C6	5.95	119.97	117.00
5	A	2044	A	C4-C5-C6	5.95	119.97	117.00
5	A	2114	C	N3-C4-N4	5.95	122.16	118.00
5	A	2293	C	N3-C4-C5	-5.95	119.52	121.90
5	A	2470	C	N3-C4-N4	5.95	122.16	118.00
5	A	1344	C	N3-C4-N4	5.94	122.16	118.00
5	A	1561	G	O4'-C1'-N9	5.94	112.96	108.20
5	A	2619	A	C5-C6-N6	-5.94	118.94	123.70
5	A	2830	A	C5-C6-N6	-5.94	118.94	123.70
6	B	27	A	C4-C5-C6	5.94	119.97	117.00
5	A	670	C	N3-C4-C5	-5.94	119.52	121.90
5	A	866	A	C5-C6-N1	-5.94	114.73	117.70
5	A	1298	C	N3-C4-N4	5.94	122.16	118.00
5	A	1829	C	N3-C4-C5	-5.94	119.52	121.90
5	A	2187	A	C4-C5-C6	5.94	119.97	117.00
5	A	2479	A	C4-C5-C6	5.94	119.97	117.00
5	A	2927	A	C4-C5-C6	5.94	119.97	117.00
5	A	6	A	C5-C6-N1	-5.94	114.73	117.70
5	A	114	C	N3-C4-N4	5.94	122.16	118.00
5	A	537	A	C4-C5-C6	5.94	119.97	117.00
5	A	1223	C	N3-C4-N4	5.94	122.16	118.00
5	A	1947	A	O4'-C1'-N9	5.94	112.95	108.20
5	A	2625	U	O4'-C1'-N1	5.94	112.95	108.20
5	A	2645	C	N3-C4-N4	5.94	122.16	118.00
5	A	913	A	C4-C5-C6	5.94	119.97	117.00
5	A	1921	C	N3-C4-N4	5.94	122.16	118.00
5	A	2316	A	C5-C6-N6	-5.94	118.95	123.70
5	A	318	A	C4-C5-C6	5.94	119.97	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	505	G	C5-C6-O6	-5.94	125.04	128.60
5	A	1286	A	C4-C5-C6	5.94	119.97	117.00
5	A	1701	C	N3-C4-N4	5.94	122.16	118.00
5	A	1923	C	C2-N1-C1'	5.94	125.33	118.80
5	A	2088	A	C4-C5-C6	5.94	119.97	117.00
5	A	2464	A	O4'-C1'-N9	5.94	112.95	108.20
5	A	2530	C	N3-C4-C5	-5.94	119.53	121.90
5	A	401	C	N3-C4-N4	5.93	122.15	118.00
5	A	1727	A	C5-C6-N1	-5.93	114.73	117.70
5	A	2277	C	N3-C4-N4	5.93	122.15	118.00
6	B	116	C	N3-C4-C5	-5.93	119.53	121.90
5	A	261	C	N3-C4-N4	5.93	122.15	118.00
5	A	1770	C	N3-C4-N4	5.93	122.15	118.00
5	A	1976	C	N3-C4-N4	5.93	122.15	118.00
5	A	188	C	N3-C4-N4	5.93	122.15	118.00
5	A	1121	C	N3-C4-N4	5.93	122.15	118.00
5	A	1556	A	C5-C6-N6	-5.93	118.95	123.70
5	A	448	A	C4-C5-C6	5.93	119.97	117.00
5	A	784	C	N3-C4-C5	-5.93	119.53	121.90
5	A	1249	U	O4'-C1'-N1	5.93	112.94	108.20
5	A	1465	A	C4-C5-C6	5.93	119.97	117.00
5	A	1645	C	N3-C4-C5	-5.93	119.53	121.90
5	A	850	U	O4'-C1'-N1	5.93	112.94	108.20
5	A	1284	A	C5-C6-N1	-5.93	114.74	117.70
5	A	2177	G	O4'-C1'-N9	5.93	112.94	108.20
5	A	2732	C	C5-C6-N1	5.93	123.96	121.00
5	A	2851	A	C5-C6-N1	-5.93	114.74	117.70
5	A	1029	A	C5-C6-N1	-5.93	114.74	117.70
5	A	2220	A	C5-C6-N1	-5.93	114.74	117.70
5	A	2316	A	C4-C5-C6	5.93	119.96	117.00
5	A	2464	A	C4-C5-C6	5.93	119.96	117.00
5	A	2868	G	C5-C6-O6	-5.93	125.04	128.60
5	A	249	C	N3-C4-N4	5.92	122.15	118.00
5	A	1072	A	O4'-C1'-N9	5.92	112.94	108.20
5	A	1260	A	C4-C5-C6	5.92	119.96	117.00
5	A	1636	A	C4-C5-C6	5.92	119.96	117.00
5	A	1989	A	O4'-C1'-N9	5.92	112.94	108.20
5	A	2167	C	N3-C4-N4	5.92	122.15	118.00
5	A	222	A	C4-C5-C6	5.92	119.96	117.00
5	A	827	G	O4'-C1'-N9	5.92	112.94	108.20
5	A	1390	C	N3-C4-C5	-5.92	119.53	121.90
5	A	2010	A	C4-C5-C6	5.92	119.96	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	281	A	C4-C5-C6	5.92	119.96	117.00
5	A	533	C	N3-C4-N4	5.92	122.15	118.00
5	A	914	C	N3-C4-N4	5.92	122.15	118.00
5	A	1389	C	N3-C4-N4	5.92	122.14	118.00
5	A	2905	C	N3-C4-C5	-5.92	119.53	121.90
5	A	21	A	C4-C5-C6	5.92	119.96	117.00
5	A	670	C	N3-C4-N4	5.92	122.14	118.00
5	A	2712	C	N3-C4-N4	5.92	122.14	118.00
5	A	330	A	O4'-C1'-N9	5.92	112.93	108.20
5	A	772	G	O4'-C1'-N9	5.92	112.94	108.20
5	A	2338	A	C4-C5-C6	5.92	119.96	117.00
5	A	2396	G	O4'-C1'-N9	5.92	112.94	108.20
5	A	2919	A	C4-C5-C6	5.92	119.96	117.00
6	B	66	C	N3-C4-C5	-5.92	119.53	121.90
5	A	476	A	C5-C6-N1	-5.92	114.74	117.70
5	A	781	A	O4'-C1'-N9	5.92	112.93	108.20
5	A	971	A	C4-C5-C6	5.92	119.96	117.00
5	A	2275	G	O4'-C1'-N9	5.92	112.93	108.20
5	A	2424	C	N3-C4-N4	5.92	122.14	118.00
5	A	2750	A	C5-C6-N6	-5.92	118.97	123.70
5	A	448	A	C5-C6-N6	-5.92	118.97	123.70
5	A	2012	C	N3-C4-C5	-5.92	119.53	121.90
5	A	2844	A	C4-C5-C6	5.92	119.96	117.00
5	A	79	C	N3-C4-N4	5.91	122.14	118.00
5	A	88	G	C5'-C4'-C3'	-5.91	106.54	116.00
5	A	152	C	N3-C4-N4	5.91	122.14	118.00
5	A	244	A	O4'-C1'-N9	5.91	112.93	108.20
5	A	270	C	N3-C4-C5	-5.91	119.53	121.90
5	A	700	U	O4'-C1'-N1	5.91	112.93	108.20
5	A	1314	A	C5-C6-N6	-5.91	118.97	123.70
5	A	1482	G	O4'-C1'-N9	5.91	112.93	108.20
5	A	1485	A	C5-C6-N1	-5.91	114.74	117.70
5	A	1838	A	C5-C6-N1	-5.91	114.74	117.70
5	A	2329	A	C5-C6-N1	-5.91	114.74	117.70
6	B	17	A	C4-C5-C6	5.91	119.96	117.00
6	B	18	A	O4'-C1'-N9	5.91	112.93	108.20
5	A	37	C	N3-C4-N4	5.91	122.14	118.00
5	A	449	A	O4'-C1'-N9	5.91	112.93	108.20
5	A	818	G	O4'-C1'-N9	5.91	112.93	108.20
5	A	1297	C	N3-C4-C5	-5.91	119.54	121.90
5	A	1397	G	N3-C2-N2	5.91	124.04	119.90
5	A	1402	C	N3-C4-C5	-5.91	119.54	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1724	A	C5-C6-N1	-5.91	114.74	117.70
5	A	1998	A	C5-C6-N1	-5.91	114.75	117.70
5	A	1999	A	C4-C5-C6	5.91	119.95	117.00
5	A	2621	G	P-O5'-C5'	5.91	130.36	120.90
5	A	2914	C	N3-C4-N4	5.91	122.14	118.00
5	A	509	C	N3-C4-C5	-5.91	119.54	121.90
5	A	769	A	C5-C6-N1	-5.91	114.75	117.70
5	A	840	A	C4-C5-C6	5.91	119.95	117.00
5	A	853	C	N3-C4-C5	-5.91	119.54	121.90
5	A	1115	A	O4'-C1'-N9	5.91	112.93	108.20
5	A	1957	A	C5-C6-N1	-5.91	114.75	117.70
5	A	2295	A	C4-C5-C6	5.91	119.95	117.00
5	A	2852	U	P-O5'-C5'	5.91	130.35	120.90
5	A	259	A	C5-C6-N1	-5.91	114.75	117.70
5	A	994	C	N3-C4-N4	5.91	122.14	118.00
5	A	30	G	O4'-C1'-N9	5.91	112.92	108.20
5	A	185	A	C5-C6-N1	-5.91	114.75	117.70
5	A	930	C	N3-C4-N4	5.91	122.13	118.00
5	A	1011	C	N3-C4-N4	5.91	122.13	118.00
5	A	1201	A	C5-C6-N1	-5.91	114.75	117.70
5	A	1632	G	O4'-C1'-N9	5.91	112.92	108.20
5	A	1814	A	C5-C6-N6	-5.91	118.98	123.70
5	A	2342	C	N3-C4-N4	5.91	122.13	118.00
5	A	2518	G	O4'-C1'-N9	5.91	112.92	108.20
5	A	2601	A	C4-C5-C6	5.91	119.95	117.00
5	A	2619	A	P-O5'-C5'	5.91	130.35	120.90
5	A	1987	C	O4'-C1'-N1	5.90	112.92	108.20
5	A	2361	C	N3-C4-C5	-5.90	119.54	121.90
5	A	2393	C	N3-C4-N4	5.90	122.13	118.00
5	A	2447	A	C5-C6-N1	-5.90	114.75	117.70
5	A	2807	A	C5-C6-N6	-5.90	118.98	123.70
5	A	645	C	P-O5'-C5'	5.90	130.34	120.90
5	A	765	A	C5-C6-N1	-5.90	114.75	117.70
5	A	1757	G	O4'-C1'-N9	5.90	112.92	108.20
5	A	2499	G	O4'-C1'-N9	5.90	112.92	108.20
5	A	2663	A	C4-C5-C6	5.90	119.95	117.00
5	A	2834	A	C5-C6-N6	-5.90	118.98	123.70
5	A	1168	G	O4'-C1'-N9	5.90	112.92	108.20
5	A	1172	A	C4-C5-C6	5.90	119.95	117.00
5	A	1221	A	C5-C6-N1	-5.90	114.75	117.70
5	A	2042	A	C5-C6-N6	-5.90	118.98	123.70
5	A	2166	C	N3-C4-C5	-5.90	119.54	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	411	G	C3'-C2'-C1'	5.90	106.22	101.50
5	A	2308	G	O4'-C1'-N9	5.90	112.92	108.20
5	A	194	A	C4-C5-C6	5.90	119.95	117.00
5	A	753	A	C4-C5-C6	5.90	119.95	117.00
5	A	1179	A	C5-C6-N6	-5.90	118.98	123.70
5	A	1924	C	N3-C4-C5	-5.90	119.54	121.90
6	B	36	C	N3-C4-C5	-5.90	119.54	121.90
5	A	675	C	N3-C4-C5	-5.90	119.54	121.90
5	A	677	A	C5-C6-N6	-5.90	118.98	123.70
5	A	859	C	N3-C4-C5	-5.90	119.54	121.90
5	A	1510	G	C5-C6-O6	-5.90	125.06	128.60
5	A	1765	G	O4'-C1'-N9	5.90	112.92	108.20
5	A	337	A	C5-C6-N6	-5.89	118.98	123.70
5	A	384	A	C4-C5-C6	5.89	119.95	117.00
5	A	2539	C	N3-C4-C5	-5.89	119.54	121.90
5	A	618	A	O4'-C1'-N9	5.89	112.92	108.20
5	A	1241	C	N3-C4-C5	-5.89	119.54	121.90
5	A	1269	A	C5-C6-N1	-5.89	114.75	117.70
5	A	1682	C	N3-C4-C5	-5.89	119.54	121.90
5	A	2702	G	O4'-C1'-N9	5.89	112.91	108.20
6	B	7	G	O4'-C1'-N9	5.89	112.91	108.20
5	A	156	A	C4-C5-C6	5.89	119.95	117.00
5	A	1194	A	C5-C6-N1	-5.89	114.75	117.70
5	A	548	A	C4-C5-C6	5.89	119.94	117.00
5	A	561	A	O4'-C1'-N9	5.89	112.91	108.20
5	A	727	A	C5-C6-N6	-5.89	118.99	123.70
5	A	1434	A	C4-C5-C6	5.89	119.94	117.00
5	A	1877	A	C4-C5-C6	5.89	119.94	117.00
5	A	136	C	N3-C4-C5	-5.89	119.55	121.90
5	A	284	C	C6-N1-C2	-5.89	117.94	120.30
5	A	1386	G	O4'-C1'-N9	5.89	112.91	108.20
5	A	106	G	O4'-C1'-N9	5.89	112.91	108.20
5	A	392	C	N3-C4-C5	-5.89	119.55	121.90
5	A	975	C	N3-C4-N4	5.89	122.12	118.00
5	A	1263	G	O4'-C1'-N9	5.89	112.91	108.20
5	A	2164	A	C5-C6-N6	-5.89	118.99	123.70
5	A	2321	U	O4'-C1'-N1	5.89	112.91	108.20
5	A	2390	A	C5-C6-N6	-5.89	118.99	123.70
5	A	65	A	C5-C6-N6	-5.88	118.99	123.70
5	A	310	C	N3-C4-C5	-5.88	119.55	121.90
5	A	851	A	C4-C5-C6	5.88	119.94	117.00
5	A	902	G	C5-C6-O6	-5.88	125.07	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	925	A	C5-C6-N6	-5.88	118.99	123.70
5	A	1074	A	C5-C6-N1	-5.88	114.76	117.70
5	A	1631	A	O4'-C1'-N9	5.88	112.91	108.20
5	A	1818	A	O4'-C1'-N9	5.88	112.91	108.20
5	A	2912	A	C5-C6-N1	-5.88	114.76	117.70
5	A	618	A	C4-C5-C6	5.88	119.94	117.00
5	A	1223	C	N3-C4-C5	-5.88	119.55	121.90
5	A	1354	C	N3-C4-N4	5.88	122.12	118.00
5	A	1650	C	N3-C4-N4	5.88	122.12	118.00
5	A	2692	G	O4'-C1'-N9	5.88	112.91	108.20
5	A	466	C	N3-C4-C5	-5.88	119.55	121.90
5	A	543	A	C5-C6-N1	-5.88	114.76	117.70
5	A	1826	C	N3-C4-C5	-5.88	119.55	121.90
5	A	2200	A	C4-C5-C6	5.88	119.94	117.00
5	A	2378	G	N1-C6-O6	5.88	123.43	119.90
5	A	2704	A	C5-C6-N6	-5.88	118.99	123.70
5	A	1607	C	O4'-C1'-N1	5.88	112.90	108.20
5	A	2267	G	C4-N9-C1'	5.88	134.15	126.50
5	A	2879	G	O4'-C1'-N9	5.88	112.90	108.20
5	A	1089	C	N3-C4-C5	-5.88	119.55	121.90
5	A	1206	G	O4'-C1'-N9	5.88	112.90	108.20
6	B	72	U	O4'-C1'-N1	5.88	112.90	108.20
5	A	1425	C	N3-C4-N4	5.88	122.11	118.00
5	A	1699	A	C5-C6-N6	-5.88	119.00	123.70
5	A	504	A	O4'-C1'-N9	5.88	112.90	108.20
5	A	509	C	N3-C4-N4	5.88	122.11	118.00
5	A	965	A	C4-C5-C6	5.88	119.94	117.00
5	A	1377	G	C5-C6-O6	-5.88	125.08	128.60
5	A	1569	A	C4-C5-C6	5.88	119.94	117.00
5	A	2589	C	N3-C4-N4	5.88	122.11	118.00
5	A	268	A	C4-C5-C6	5.87	119.94	117.00
5	A	466	C	P-O5'-C5'	5.87	130.30	120.90
5	A	718	C	N3-C4-N4	5.87	122.11	118.00
5	A	1181	C	N3-C4-N4	5.87	122.11	118.00
5	A	2027	A	C4-C5-C6	5.87	119.94	117.00
5	A	173	A	C4-C5-C6	5.87	119.94	117.00
5	A	307	A	C5-C6-N1	-5.87	114.76	117.70
5	A	560	A	O4'-C1'-N9	5.87	112.90	108.20
5	A	1743	A	C5-C6-N1	-5.87	114.76	117.70
5	A	2726	G	O4'-C1'-N9	5.87	112.90	108.20
5	A	181	G	P-O3'-C3'	-5.87	112.66	119.70
5	A	1003	A	C4-C5-C6	5.87	119.94	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2078	A	C4-C5-C6	5.87	119.94	117.00
5	A	568	G	O4'-C1'-N9	5.87	112.89	108.20
5	A	576	G	O4'-C1'-N9	5.87	112.89	108.20
5	A	1059	A	C5-C6-N6	-5.87	119.00	123.70
5	A	1364	C	N3-C4-N4	5.87	122.11	118.00
6	B	17	A	C5-C6-N1	-5.87	114.77	117.70
5	A	1708	U	P-O3'-C3'	5.87	126.74	119.70
5	A	2513	G	O4'-C1'-N9	5.87	112.89	108.20
5	A	2646	C	N3-C4-C5	-5.87	119.55	121.90
5	A	258	A	C5-C6-N6	-5.87	119.01	123.70
5	A	572	A	C4-C5-C6	5.87	119.93	117.00
5	A	728	G	O4'-C1'-N9	5.87	112.89	108.20
5	A	2095	C	N3-C4-N4	5.87	122.11	118.00
6	B	106	C	N3-C4-N4	5.87	122.11	118.00
6	B	116	C	O4'-C1'-N1	5.86	112.89	108.20
5	A	322	A	O4'-C1'-N9	5.86	112.89	108.20
5	A	335	G	O4'-C1'-N9	5.86	112.89	108.20
5	A	534	C	N3-C4-N4	5.86	122.10	118.00
5	A	622	A	C4-C5-C6	5.86	119.93	117.00
5	A	1169	C	N3-C4-N4	5.86	122.10	118.00
5	A	2322	C	N3-C4-C5	-5.86	119.56	121.90
5	A	462	A	C4-C5-C6	5.86	119.93	117.00
5	A	581	C	N3-C4-N4	5.86	122.10	118.00
5	A	2094	C	N3-C4-C5	-5.86	119.56	121.90
5	A	2595	A	C5-C6-N1	-5.86	114.77	117.70
5	A	392	C	N3-C4-N4	5.86	122.10	118.00
5	A	1333	C	N3-C4-C5	-5.86	119.56	121.90
5	A	1519	C	N3-C4-C5	-5.86	119.56	121.90
5	A	1644	C	N3-C4-C5	-5.86	119.56	121.90
5	A	1842	C	N3-C4-C5	-5.86	119.56	121.90
5	A	206	A	C5-C6-N1	-5.86	114.77	117.70
5	A	591	U	O4'-C1'-N1	5.86	112.89	108.20
5	A	592	A	C5-C6-N6	-5.86	119.01	123.70
5	A	1490	A	O4'-C1'-N9	5.86	112.89	108.20
5	A	1776	A	C4-C5-C6	5.86	119.93	117.00
5	A	1975	U	O4'-C1'-N1	5.86	112.89	108.20
5	A	2060	A	C4-C5-C6	5.86	119.93	117.00
5	A	199	A	C4-C5-C6	5.86	119.93	117.00
5	A	796	A	C5-C6-N6	-5.86	119.02	123.70
5	A	2124	A	O4'-C1'-N9	5.86	112.89	108.20
5	A	2146	A	C4-C5-C6	5.86	119.93	117.00
5	A	2826	A	C4-C5-C6	5.86	119.93	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	65	G	O4'-C1'-N9	5.86	112.88	108.20
5	A	466	C	N3-C4-N4	5.85	122.10	118.00
5	A	667	A	C5-C6-N1	-5.85	114.77	117.70
5	A	723	A	O4'-C1'-N9	5.85	112.88	108.20
5	A	1609	C	N3-C4-N4	5.85	122.10	118.00
5	A	2270	A	C4-C5-C6	5.85	119.93	117.00
5	A	2329	A	C4-C5-C6	5.85	119.93	117.00
5	A	114	C	N3-C4-C5	-5.85	119.56	121.90
5	A	341	G	O4'-C1'-N9	5.85	112.88	108.20
5	A	702	A	C4-C5-C6	5.85	119.93	117.00
5	A	1608	A	O4'-C1'-N9	5.85	112.88	108.20
5	A	2203	C	N3-C4-N4	5.85	122.10	118.00
5	A	2505	A	C5-C6-N1	-5.85	114.77	117.70
5	A	2673	A	C4-C5-C6	5.85	119.93	117.00
5	A	2915	G	O4'-C1'-N9	5.85	112.88	108.20
5	A	273	A	C4-C5-C6	5.85	119.92	117.00
5	A	1842	C	N3-C4-N4	5.85	122.10	118.00
5	A	1950	G	C5-C6-O6	-5.85	125.09	128.60
5	A	2317	A	C4-C5-C6	5.85	119.93	117.00
5	A	211	C	N3-C4-N4	5.85	122.09	118.00
5	A	342	A	C4-C5-C6	5.85	119.92	117.00
5	A	502	C	N3-C4-C5	-5.85	119.56	121.90
5	A	1445	A	C5-C6-N6	-5.85	119.02	123.70
5	A	2014	G	O4'-C1'-N9	5.85	112.88	108.20
6	B	112	C	N3-C4-N4	5.85	122.09	118.00
5	A	127	C	C2-N3-C4	5.85	122.82	119.90
5	A	389	A	C4-C5-C6	5.85	119.92	117.00
5	A	908	A	C4-C5-C6	5.85	119.92	117.00
5	A	1736	C	N3-C4-N4	5.85	122.09	118.00
5	A	2322	C	N3-C4-N4	5.85	122.09	118.00
5	A	2323	C	N3-C4-N4	5.85	122.09	118.00
5	A	2344	U	O4'-C1'-N1	5.85	112.88	108.20
5	A	600	A	C5-C6-N1	-5.85	114.78	117.70
5	A	647	A	C4-C5-C6	5.85	119.92	117.00
5	A	1207	C	N3-C4-N4	5.85	122.09	118.00
5	A	1558	G	O4'-C1'-N9	5.85	112.88	108.20
6	B	28	C	N3-C4-N4	5.85	122.09	118.00
5	A	964	A	C5-C6-N1	-5.84	114.78	117.70
5	A	2593	A	C4-C5-C6	5.84	119.92	117.00
5	A	185	A	C4-C5-C6	5.84	119.92	117.00
5	A	1056	A	C5-C6-N1	-5.84	114.78	117.70
5	A	2111	A	C5-C6-N6	-5.84	119.03	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2269	C	N3-C4-C5	-5.84	119.56	121.90
5	A	2423	C	O4'-C1'-N1	5.84	112.87	108.20
5	A	2484	G	O4'-C1'-N9	5.84	112.88	108.20
5	A	287	G	O4'-C1'-N9	5.84	112.87	108.20
5	A	375	C	N3-C4-C5	-5.84	119.56	121.90
5	A	1148	C	N3-C4-N4	5.84	122.09	118.00
5	A	1170	C	N3-C4-C5	-5.84	119.56	121.90
5	A	2234	C	N3-C4-C5	-5.84	119.56	121.90
5	A	2551	U	O4'-C1'-N1	5.84	112.87	108.20
5	A	689	A	C4-C5-C6	5.84	119.92	117.00
5	A	747	G	O4'-C1'-N9	5.84	112.87	108.20
5	A	1244	A	C4-C5-C6	5.84	119.92	117.00
5	A	1385	G	C5-C6-O6	-5.84	125.10	128.60
5	A	1499	A	C5-C6-N1	-5.84	114.78	117.70
5	A	2496	C	N3-C4-C5	-5.84	119.56	121.90
5	A	2735	A	C5-C6-N1	-5.84	114.78	117.70
5	A	2840	C	N3-C4-N4	5.84	122.09	118.00
5	A	852	G	O4'-C1'-N9	5.84	112.87	108.20
5	A	110	A	C5-C6-N1	-5.84	114.78	117.70
5	A	1338	G	O4'-C1'-N9	5.84	112.87	108.20
5	A	2661	A	C4-C5-C6	5.84	119.92	117.00
6	B	18	A	C4-C5-C6	5.84	119.92	117.00
5	A	37	C	N3-C4-C5	-5.83	119.57	121.90
5	A	253	G	C5-C6-O6	-5.83	125.10	128.60
5	A	1033	C	N3-C4-N4	5.83	122.08	118.00
5	A	1039	G	O4'-C1'-N9	5.83	112.87	108.20
5	A	1592	A	C4-C5-C6	5.83	119.92	117.00
5	A	1672	A	C4-C5-C6	5.83	119.92	117.00
5	A	2365	A	C5-C6-N6	-5.83	119.03	123.70
5	A	868	A	C5-C6-N1	-5.83	114.78	117.70
5	A	976	U	O4'-C1'-C2'	-5.83	99.97	105.80
6	B	20	A	C4-C5-C6	5.83	119.92	117.00
6	B	70	G	N3-C2-N2	5.83	123.98	119.90
5	A	153	C	P-O5'-C5'	5.83	130.23	120.90
5	A	206	A	C5-C6-N6	-5.83	119.03	123.70
5	A	705	A	C4-C5-C6	5.83	119.92	117.00
5	A	725	C	N3-C4-C5	-5.83	119.57	121.90
5	A	790	A	C5-C6-N1	-5.83	114.78	117.70
5	A	2453	C	N3-C4-N4	5.83	122.08	118.00
5	A	2810	A	C5-C6-N6	-5.83	119.03	123.70
5	A	2898	A	C5-C6-N1	-5.83	114.78	117.70
6	B	88	C	N3-C4-N4	5.83	122.08	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	133	A	C4-C5-C6	5.83	119.92	117.00
5	A	720	C	P-O5'-C5'	-5.83	111.57	120.90
5	A	32	C	N3-C4-N4	5.83	122.08	118.00
5	A	464	C	N3-C4-N4	5.83	122.08	118.00
5	A	1416	G	O4'-C1'-N9	5.83	112.86	108.20
5	A	1652	C	O4'-C1'-N1	5.83	112.86	108.20
5	A	1705	C	N3-C4-C5	-5.83	119.57	121.90
5	A	2000	A	O4'-C1'-N9	5.83	112.86	108.20
5	A	2007	A	C4-C5-C6	5.83	119.92	117.00
5	A	2110	C	N3-C4-C5	-5.83	119.57	121.90
5	A	2123	A	C4-C5-C6	5.83	119.92	117.00
5	A	140	A	C5-C6-N1	-5.83	114.79	117.70
5	A	708	U	P-O5'-C5'	5.83	130.22	120.90
5	A	1144	A	C4-C5-C6	5.83	119.91	117.00
5	A	2786	A	C5-C6-N6	-5.83	119.04	123.70
5	A	2	G	O4'-C1'-N9	5.83	112.86	108.20
5	A	584	A	C4-C5-C6	5.83	119.91	117.00
5	A	1201	A	C5-C6-N6	-5.83	119.04	123.70
5	A	1676	G	C4'-C3'-C2'	-5.83	96.77	102.60
5	A	2298	A	C4-C5-C6	5.83	119.91	117.00
5	A	2338	A	C5-C6-N6	-5.83	119.04	123.70
5	A	2878	U	P-O5'-C5'	5.83	130.22	120.90
5	A	1601	A	C5-C6-N1	-5.82	114.79	117.70
5	A	1768	A	C5-C6-N1	-5.82	114.79	117.70
5	A	1932	G	O4'-C1'-N9	5.82	112.86	108.20
5	A	2424	C	N3-C4-C5	-5.82	119.57	121.90
5	A	2651	C	N3-C4-N4	5.82	122.08	118.00
5	A	2704	A	C4-C5-C6	5.82	119.91	117.00
5	A	2830	A	C5-C6-N1	-5.82	114.79	117.70
6	B	27	A	O4'-C1'-N9	5.82	112.86	108.20
6	B	114	A	C4-C5-C6	5.82	119.91	117.00
5	A	553	A	C4-C5-C6	5.82	119.91	117.00
5	A	1703	C	N3-C4-C5	-5.82	119.57	121.90
5	A	656	A	C5-C6-N1	-5.82	114.79	117.70
5	A	727	A	C4-C5-C6	5.82	119.91	117.00
5	A	1118	C	N3-C4-C5	-5.82	119.57	121.90
5	A	2722	A	C5-C6-N1	-5.82	114.79	117.70
5	A	2900	A	C5-C6-N6	-5.82	119.04	123.70
9	E	147	SER	N-CA-CB	5.82	119.23	110.50
5	A	656	A	C4-C5-C6	5.82	119.91	117.00
5	A	889	A	C4-C5-C6	5.82	119.91	117.00
5	A	1392	A	O4'-C1'-N9	5.82	112.86	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	424	G	O4'-C1'-N9	5.82	112.85	108.20
5	A	994	C	N3-C4-C5	-5.82	119.57	121.90
5	A	996	G	O4'-C1'-N9	5.82	112.86	108.20
5	A	1331	C	N3-C4-C5	-5.82	119.57	121.90
5	A	1331	C	N3-C4-N4	5.82	122.07	118.00
5	A	1504	A	C5-C6-N6	-5.82	119.05	123.70
5	A	2165	A	C5-C6-N1	-5.82	114.79	117.70
5	A	2225	C	N3-C4-N4	5.82	122.07	118.00
5	A	2326	C	O4'-C1'-N1	5.82	112.86	108.20
5	A	2812	A	C5-C6-N6	-5.82	119.05	123.70
5	A	2899	C	N3-C4-N4	5.82	122.07	118.00
5	A	10	A	O4'-C1'-N9	5.82	112.85	108.20
5	A	31	C	N3-C4-N4	5.82	122.07	118.00
5	A	200	A	O4'-C1'-N9	5.82	112.85	108.20
5	A	236	A	C4-C5-C6	5.82	119.91	117.00
5	A	888	A	C4-C5-C6	5.82	119.91	117.00
5	A	1052	C	N3-C4-C5	-5.82	119.57	121.90
5	A	1096	A	C5-C6-N6	-5.82	119.05	123.70
5	A	1991	C	N3-C4-C5	-5.82	119.57	121.90
5	A	2052	A	C4-C5-C6	5.82	119.91	117.00
5	A	2064	G	C5'-C4'-O4'	5.82	116.08	109.10
5	A	2068	G	O4'-C1'-N9	5.82	112.85	108.20
5	A	2330	A	C5-C6-N1	-5.82	114.79	117.70
5	A	2799	C	C6-N1-C2	-5.82	117.97	120.30
5	A	442	C	N3-C4-C5	-5.81	119.57	121.90
5	A	530	A	C4-C5-C6	5.81	119.91	117.00
5	A	1020	A	C5-C6-N6	-5.81	119.05	123.70
5	A	1442	A	C5-C6-N1	-5.81	114.79	117.70
5	A	44	A	C5-C6-N6	-5.81	119.05	123.70
5	A	265	A	C4-C5-C6	5.81	119.91	117.00
5	A	1477	A	C4-C5-C6	5.81	119.91	117.00
5	A	1617	A	C5-C6-N6	-5.81	119.05	123.70
5	A	2717	G	N3-C2-N2	5.81	123.97	119.90
5	A	326	A	C5-C6-N6	-5.81	119.05	123.70
5	A	553	A	O4'-C1'-N9	5.81	112.85	108.20
5	A	1824	C	N3-C4-N4	5.81	122.07	118.00
5	A	2719	A	C5-C6-N6	-5.81	119.05	123.70
5	A	20	C	N3-C4-C5	-5.81	119.58	121.90
5	A	655	C	N3-C4-N4	5.81	122.07	118.00
5	A	1059	A	C4-C5-C6	5.81	119.90	117.00
5	A	1257	C	N3-C4-N4	5.81	122.07	118.00
5	A	1542	A	C5-C6-N6	-5.81	119.05	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2774	C	N3-C4-C5	-5.81	119.58	121.90
5	A	94	A	O4'-C1'-N9	5.81	112.85	108.20
5	A	551	A	O4'-C1'-N9	5.81	112.85	108.20
5	A	778	C	N3-C4-C5	-5.81	119.58	121.90
5	A	1164	C	N3-C4-N4	5.81	122.06	118.00
5	A	2032	A	O4'-C1'-N9	5.81	112.85	108.20
5	A	2462	A	C5-C6-N6	-5.81	119.06	123.70
5	A	170	G	O4'-C1'-N9	5.81	112.84	108.20
5	A	1134	A	C5-C6-N6	-5.81	119.06	123.70
5	A	1971	C	N3-C4-N4	5.81	122.06	118.00
5	A	2124	A	C4-C5-C6	5.81	119.90	117.00
5	A	2512	C	N3-C4-N4	5.81	122.06	118.00
5	A	2516	G	O4'-C1'-N9	5.81	112.84	108.20
5	A	6	A	C4-C5-C6	5.80	119.90	117.00
5	A	784	C	N3-C4-N4	5.80	122.06	118.00
5	A	955	C	N3-C4-N4	5.80	122.06	118.00
5	A	1008	A	C5-C6-N6	-5.80	119.06	123.70
5	A	1243	A	C4-C5-C6	5.80	119.90	117.00
5	A	1418	U	C2-N1-C1'	5.80	124.67	117.70
5	A	529	C	N3-C4-N4	5.80	122.06	118.00
5	A	1283	U	P-O3'-C3'	5.80	126.66	119.70
5	A	2190	C	N3-C4-N4	5.80	122.06	118.00
5	A	2369	A	C4-C5-C6	5.80	119.90	117.00
5	A	178	A	C5-C6-N1	-5.80	114.80	117.70
5	A	623	A	C4-C5-C6	5.80	119.90	117.00
5	A	2387	A	C4-C5-C6	5.80	119.90	117.00
6	B	46	A	C4-C5-C6	5.80	119.90	117.00
5	A	204	C	N3-C4-C5	-5.80	119.58	121.90
5	A	265	A	C5-C6-N1	-5.80	114.80	117.70
5	A	366	A	C5-C6-N1	-5.80	114.80	117.70
5	A	384	A	C5-C6-N6	-5.80	119.06	123.70
5	A	476	A	C4-C5-C6	5.80	119.90	117.00
5	A	729	G	C5'-C4'-C3'	-5.80	106.72	116.00
5	A	1278	G	O4'-C1'-N9	5.80	112.84	108.20
5	A	1835	C	N3-C4-N4	5.80	122.06	118.00
5	A	1948	A	O4'-C1'-N9	5.80	112.84	108.20
5	A	2790	A	C5-C6-N1	-5.80	114.80	117.70
5	A	1483	A	C5-C6-N1	-5.80	114.80	117.70
5	A	1593	A	C5-C6-N6	-5.80	119.06	123.70
5	A	1830	G	O4'-C1'-N9	5.80	112.84	108.20
5	A	69	C	N3-C4-C5	-5.80	119.58	121.90
5	A	369	A	C5-C6-N1	-5.80	114.80	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	641	C	N3-C4-N4	5.80	122.06	118.00
5	A	1167	C	N3-C4-N4	5.80	122.06	118.00
5	A	1929	A	C4-C5-C6	5.80	119.90	117.00
5	A	619	A	C4-C5-C6	5.79	119.90	117.00
5	A	1323	A	O4'-C1'-N9	5.79	112.84	108.20
5	A	1949	C	N3-C4-N4	5.79	122.06	118.00
5	A	2402	A	C4-C5-C6	5.79	119.90	117.00
5	A	1179	A	C5-C6-N1	-5.79	114.80	117.70
5	A	1819	C	N3-C4-N4	5.79	122.06	118.00
5	A	1923	C	N3-C4-C5	-5.79	119.58	121.90
5	A	2037	C	N3-C4-N4	5.79	122.06	118.00
5	A	2443	G	O4'-C1'-N9	5.79	112.83	108.20
5	A	2643	A	C5-C6-N6	-5.79	119.07	123.70
5	A	79	C	N3-C4-C5	-5.79	119.58	121.90
5	A	227	G	O4'-C1'-N9	5.79	112.83	108.20
5	A	407	A	O4'-C1'-N9	5.79	112.83	108.20
5	A	525	A	C4-C5-C6	5.79	119.90	117.00
5	A	616	A	O4'-C1'-N9	5.79	112.83	108.20
5	A	1175	A	O4'-C1'-N9	5.79	112.83	108.20
5	A	1297	C	N3-C4-N4	5.79	122.05	118.00
5	A	2030	A	C5-C6-N6	-5.79	119.07	123.70
5	A	2053	C	P-O5'-C5'	5.79	130.17	120.90
5	A	259	A	O4'-C1'-N9	5.79	112.83	108.20
5	A	1318	G	O4'-C1'-N9	5.79	112.83	108.20
5	A	1770	C	N3-C4-C5	-5.79	119.58	121.90
5	A	1935	G	O4'-C1'-N9	5.79	112.83	108.20
5	A	2158	C	N3-C4-N4	5.79	122.05	118.00
5	A	49	A	O4'-C1'-N9	5.79	112.83	108.20
5	A	1010	C	N3-C4-C5	-5.79	119.58	121.90
5	A	2285	G	O4'-C1'-N9	5.79	112.83	108.20
5	A	2675	C	N3-C4-C5	-5.79	119.58	121.90
5	A	2742	C	C2-N1-C1'	5.79	125.17	118.80
5	A	1401	C	N3-C4-N4	5.79	122.05	118.00
5	A	306	C	O4'-C1'-N1	5.79	112.83	108.20
5	A	418	A	C4-C5-C6	5.79	119.89	117.00
5	A	724	A	C5-C6-N1	-5.79	114.81	117.70
5	A	1052	C	N3-C4-N4	5.79	122.05	118.00
5	A	1326	A	C4-C5-C6	5.79	119.89	117.00
5	A	1717	C	N3-C4-N4	5.79	122.05	118.00
5	A	2032	A	C4-C5-C6	5.79	119.89	117.00
5	A	2841	C	N3-C4-N4	5.79	122.05	118.00
6	B	20	A	C5-C6-N6	-5.79	119.07	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1453	A	C5-C6-N1	-5.78	114.81	117.70
5	A	1655	A	C4-C5-C6	5.78	119.89	117.00
5	A	2306	G	O4'-C1'-N9	5.78	112.83	108.20
6	B	27	A	C5-C6-N6	-5.78	119.07	123.70
6	B	108	C	N3-C4-C5	-5.78	119.59	121.90
5	A	689	A	C5-C6-N1	-5.78	114.81	117.70
5	A	1047	A	C4-C5-C6	5.78	119.89	117.00
5	A	1994	C	N3-C4-N4	5.78	122.05	118.00
5	A	2030	A	C4-C5-C6	5.78	119.89	117.00
5	A	2066	A	C5-C6-N1	-5.78	114.81	117.70
5	A	2506	C	N3-C4-N4	5.78	122.05	118.00
5	A	230	A	C5-C6-N1	-5.78	114.81	117.70
5	A	284	C	N3-C4-N4	5.78	122.05	118.00
5	A	1077	G	O4'-C1'-N9	5.78	112.82	108.20
5	A	1142	A	C5-C6-N6	-5.78	119.08	123.70
5	A	1766	C	C2-N1-C1'	5.78	125.16	118.80
5	A	2076	C	N3-C4-N4	5.78	122.05	118.00
5	A	2567	C	N3-C4-C5	-5.78	119.59	121.90
5	A	2590	A	C5-C6-N1	-5.78	114.81	117.70
5	A	2705	C	N3-C4-C5	-5.78	119.59	121.90
5	A	922	A	C5-C6-N1	-5.78	114.81	117.70
5	A	986	G	O4'-C1'-N9	5.78	112.82	108.20
5	A	2466	C	N3-C4-N4	5.78	122.05	118.00
6	B	25	A	C4-C5-C6	5.78	119.89	117.00
5	A	722	A	C5-C6-N1	-5.78	114.81	117.70
5	A	1025	A	C4-C5-C6	5.78	119.89	117.00
5	A	1083	G	O4'-C1'-N9	5.78	112.82	108.20
5	A	2292	C	N3-C4-C5	-5.78	119.59	121.90
5	A	2446	C	N3-C4-C5	-5.78	119.59	121.90
5	A	2605	G	O4'-C1'-N9	5.78	112.82	108.20
5	A	604	C	N3-C4-N4	5.77	122.04	118.00
6	B	17	A	O4'-C1'-N9	5.77	112.82	108.20
5	A	144	A	C5-C6-N6	-5.77	119.08	123.70
5	A	1027	A	C5-C6-N6	-5.77	119.08	123.70
5	A	1178	U	C6-N1-C1'	-5.77	113.12	121.20
5	A	1778	A	C4-C5-C6	5.77	119.89	117.00
5	A	2212	C	N3-C4-N4	5.77	122.04	118.00
5	A	2834	A	C4-C5-C6	5.77	119.89	117.00
5	A	62	C	N3-C4-C5	-5.77	119.59	121.90
5	A	828	A	C4-C5-C6	5.77	119.89	117.00
5	A	2603	G	O4'-C1'-N9	5.77	112.82	108.20
5	A	1653	A	C5-C6-N1	-5.77	114.81	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2031	G	O4'-C1'-N9	5.77	112.81	108.20
5	A	2843	G	C5-C6-O6	-5.77	125.14	128.60
5	A	875	U	O4'-C1'-N1	5.77	112.81	108.20
5	A	960	U	O4'-C1'-N1	5.77	112.81	108.20
5	A	1389	C	N3-C4-C5	-5.77	119.59	121.90
5	A	2432	C	N3-C4-C5	-5.77	119.59	121.90
5	A	2926	C	N3-C4-N4	5.77	122.04	118.00
6	B	113	A	C5-C6-N6	-5.77	119.09	123.70
5	A	864	C	N3-C4-N4	5.77	122.04	118.00
5	A	359	C	N3-C4-C5	-5.76	119.59	121.90
5	A	492	C	N3-C4-N4	5.76	122.04	118.00
5	A	543	A	C4-C5-C6	5.76	119.88	117.00
5	A	811	A	C5-C6-N1	-5.76	114.82	117.70
5	A	1677	A	C4-C5-C6	5.76	119.88	117.00
5	A	1767	A	O4'-C1'-N9	5.76	112.81	108.20
5	A	2547	A	C5-C6-N1	-5.76	114.82	117.70
5	A	2695	C	N3-C4-C5	-5.76	119.59	121.90
5	A	780	G	N3-C2-N2	5.76	123.93	119.90
5	A	1976	C	N3-C4-C5	-5.76	119.59	121.90
5	A	940	G	O4'-C1'-N9	5.76	112.81	108.20
5	A	1579	A	C5-C6-N1	-5.76	114.82	117.70
5	A	1618	A	P-O3'-C3'	5.76	126.61	119.70
5	A	1922	C	N3-C4-N4	5.76	122.03	118.00
5	A	2113	C	N3-C4-N4	5.76	122.03	118.00
5	A	2602	C	N3-C4-N4	5.76	122.03	118.00
6	B	46	A	C5-C6-N1	-5.76	114.82	117.70
5	A	904	A	C4-C5-C6	5.76	119.88	117.00
5	A	1434	A	O4'-C1'-N9	5.76	112.81	108.20
5	A	1492	G	C4'-C3'-C2'	-5.76	96.84	102.60
5	A	1753	C	N3-C4-N4	5.76	122.03	118.00
5	A	2225	C	N3-C4-C5	-5.76	119.60	121.90
5	A	2530	C	N3-C4-N4	5.76	122.03	118.00
5	A	97	C	N3-C4-N4	5.76	122.03	118.00
5	A	1739	C	N3-C4-C5	-5.76	119.60	121.90
5	A	154	A	C4-C5-C6	5.76	119.88	117.00
5	A	173	A	C5-C6-N1	-5.76	114.82	117.70
5	A	1219	C	N3-C4-C5	-5.76	119.60	121.90
5	A	1565	U	O4'-C1'-N1	5.76	112.81	108.20
5	A	1606	A	C4-C5-C6	5.76	119.88	117.00
5	A	2395	A	O4'-C1'-N9	5.76	112.81	108.20
5	A	2440	A	C4-C5-C6	5.76	119.88	117.00
5	A	2503	C	N3-C4-N4	5.76	122.03	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2912	A	C5-C6-N6	-5.76	119.09	123.70
5	A	353	A	P-O5'-C5'	5.75	130.11	120.90
5	A	1517	A	C5-C6-N1	-5.75	114.82	117.70
5	A	1552	C	N3-C4-C5	-5.75	119.60	121.90
5	A	1956	A	O4'-C1'-N9	5.75	112.80	108.20
6	B	41	C	N3-C4-C5	-5.75	119.60	121.90
5	A	284	C	N3-C4-C5	-5.75	119.60	121.90
5	A	481	U	O4'-C1'-N1	5.75	112.80	108.20
5	A	864	C	N3-C4-C5	-5.75	119.60	121.90
5	A	1461	A	O4'-C1'-N9	5.75	112.80	108.20
5	A	1619	A	C4-C5-C6	5.75	119.88	117.00
5	A	2715	G	C5-C6-O6	-5.75	125.15	128.60
5	A	421	A	C5-C6-N6	-5.75	119.10	123.70
5	A	672	C	C6-N1-C2	-5.75	118.00	120.30
5	A	1532	A	C4-C5-C6	5.75	119.88	117.00
5	A	2492	C	N3-C4-N4	5.75	122.03	118.00
5	A	2657	C	N3-C4-C5	-5.75	119.60	121.90
5	A	362	C	N3-C4-N4	5.75	122.03	118.00
5	A	593	A	C5-C6-N1	-5.75	114.83	117.70
5	A	1493	C	N3-C4-C5	-5.75	119.60	121.90
5	A	1522	U	C6-N1-C1'	-5.75	113.15	121.20
5	A	2270	A	C5-C6-N1	-5.75	114.83	117.70
5	A	2475	G	C5-C6-O6	-5.75	125.15	128.60
5	A	69	C	N3-C4-N4	5.75	122.02	118.00
5	A	133	A	C5-C6-N1	-5.75	114.83	117.70
5	A	460	C	N3-C4-N4	5.75	122.02	118.00
5	A	581	C	N3-C4-C5	-5.75	119.60	121.90
5	A	1169	C	N3-C4-C5	-5.75	119.60	121.90
5	A	1287	A	C4-C5-C6	5.75	119.88	117.00
5	A	1477	A	C5-C6-N6	-5.75	119.10	123.70
5	A	1694	G	O4'-C1'-N9	5.75	112.80	108.20
5	A	1925	A	C4-C5-C6	5.75	119.87	117.00
5	A	2193	C	N3-C4-N4	5.75	122.02	118.00
5	A	2330	A	C4-C5-C6	5.75	119.87	117.00
5	A	2604	C	N3-C4-C5	-5.75	119.60	121.90
5	A	2742	C	N3-C4-C5	-5.75	119.60	121.90
5	A	1153	G	P-O5'-C5'	5.75	130.09	120.90
5	A	1217	U	O4'-C1'-N1	5.75	112.80	108.20
5	A	1618	A	O4'-C1'-N9	5.75	112.80	108.20
5	A	1829	C	N3-C4-N4	5.75	122.02	118.00
5	A	2164	A	C4-C5-C6	5.75	119.87	117.00
5	A	2166	C	N3-C4-N4	5.75	122.02	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2456	C	O4'-C1'-N1	5.75	112.80	108.20
5	A	2729	C	N3-C4-N4	5.75	122.02	118.00
5	A	2851	A	C5-C6-N6	-5.75	119.10	123.70
5	A	759	G	C6-C5-N7	-5.75	126.95	130.40
5	A	1279	C	N3-C4-N4	5.75	122.02	118.00
5	A	634	A	C5-C6-N6	-5.74	119.11	123.70
5	A	2065	C	N3-C4-N4	5.74	122.02	118.00
5	A	2594	A	C5-C6-N1	-5.74	114.83	117.70
5	A	2789	C	N3-C4-N4	5.74	122.02	118.00
5	A	991	A	C5-C6-N1	-5.74	114.83	117.70
5	A	1065	U	O4'-C1'-N1	5.74	112.79	108.20
5	A	1542	A	O4'-C1'-N9	5.74	112.79	108.20
5	A	456	A	C5-C6-N6	-5.74	119.11	123.70
5	A	618	A	C5-C6-N6	-5.74	119.11	123.70
5	A	2166	C	O4'-C1'-N1	5.74	112.79	108.20
5	A	2375	A	O4'-C1'-N9	5.74	112.79	108.20
5	A	154	A	O4'-C1'-N9	5.74	112.79	108.20
5	A	181	G	C4'-C3'-C2'	-5.74	96.86	102.60
5	A	991	A	C5-C6-N6	-5.74	119.11	123.70
5	A	1132	A	C5-C6-N1	-5.74	114.83	117.70
5	A	2097	U	P-O3'-C3'	5.74	126.59	119.70
5	A	2433	C	N3-C4-N4	5.74	122.02	118.00
5	A	1027	A	C4-C5-C6	5.74	119.87	117.00
5	A	2675	C	C2-N1-C1'	5.74	125.11	118.80
6	B	58	C	N3-C4-C5	-5.74	119.61	121.90
5	A	47	C	N3-C4-C5	-5.74	119.61	121.90
5	A	649	G	O4'-C1'-N9	5.74	112.79	108.20
5	A	1426	A	C4-C5-C6	5.74	119.87	117.00
5	A	2155	A	C4-C5-C6	5.74	119.87	117.00
5	A	2407	A	C5-C6-N1	-5.74	114.83	117.70
5	A	2789	C	N3-C4-C5	-5.74	119.61	121.90
6	B	109	C	N3-C4-N4	5.74	122.02	118.00
5	A	76	C	N3-C4-N4	5.73	122.01	118.00
5	A	183	A	C4-C5-C6	5.73	119.87	117.00
5	A	207	A	O4'-C1'-N9	5.73	112.78	108.20
5	A	467	C	N3-C4-N4	5.73	122.01	118.00
5	A	1693	C	N3-C4-N4	5.73	122.01	118.00
5	A	1781	C	N3-C4-N4	5.73	122.01	118.00
5	A	1855	C	N3-C4-C5	-5.73	119.61	121.90
5	A	1963	C	N3-C4-N4	5.73	122.01	118.00
5	A	2039	G	O4'-C1'-N9	5.73	112.79	108.20
5	A	254	A	C5-C6-N6	-5.73	119.12	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	445	C	N3-C4-C5	-5.73	119.61	121.90
5	A	1130	A	C5-C6-N6	-5.73	119.11	123.70
5	A	1575	A	C5-C6-N1	-5.73	114.83	117.70
5	A	1764	U	P-O3'-C3'	5.73	126.58	119.70
5	A	2315	A	C5-C6-N6	-5.73	119.11	123.70
5	A	2319	G	O4'-C1'-N9	5.73	112.78	108.20
5	A	2731	G	C5-C6-O6	-5.73	125.16	128.60
5	A	2803	C	N3-C4-N4	5.73	122.01	118.00
5	A	3	U	C3'-C2'-C1'	5.73	106.08	101.50
5	A	710	G	O4'-C1'-N9	5.73	112.78	108.20
5	A	889	A	C5-C6-N1	-5.73	114.83	117.70
5	A	309	U	C5'-C4'-O4'	-5.73	102.23	109.10
5	A	366	A	C4-C5-C6	5.73	119.86	117.00
5	A	999	A	O4'-C1'-N9	5.73	112.78	108.20
5	A	1119	A	C5-C6-N6	-5.73	119.12	123.70
5	A	1366	C	N3-C4-C5	-5.73	119.61	121.90
5	A	1374	C	N3-C4-N4	5.73	122.01	118.00
5	A	1500	U	O4'-C1'-N1	5.73	112.78	108.20
5	A	1815	A	C4-C5-C6	5.73	119.86	117.00
5	A	2119	A	C4-C5-C6	5.73	119.86	117.00
5	A	2277	C	N3-C4-C5	-5.73	119.61	121.90
6	B	118	A	C5-C6-N1	-5.73	114.84	117.70
5	A	38	A	C4-C5-C6	5.73	119.86	117.00
5	A	1921	C	N3-C4-C5	-5.72	119.61	121.90
5	A	28	A	C4-C5-C6	5.72	119.86	117.00
5	A	73	A	C4-C5-C6	5.72	119.86	117.00
5	A	234	C	N3-C4-N4	5.72	122.01	118.00
5	A	574	A	C5-C6-N1	-5.72	114.84	117.70
5	A	1644	C	N3-C4-N4	5.72	122.01	118.00
5	A	2052	A	C5-C6-N1	-5.72	114.84	117.70
5	A	2075	G	O4'-C1'-N9	5.72	112.78	108.20
5	A	2076	C	N3-C4-C5	-5.72	119.61	121.90
5	A	2173	G	N3-C2-N2	5.72	123.91	119.90
5	A	1767	A	C5-C6-N6	-5.72	119.12	123.70
5	A	2100	A	C5-C6-N1	-5.72	114.84	117.70
5	A	2236	C	N3-C4-C5	-5.72	119.61	121.90
5	A	1196	C	N3-C4-C5	-5.72	119.61	121.90
5	A	1434	A	C5-C6-N1	-5.72	114.84	117.70
5	A	1557	G	O4'-C1'-N9	5.72	112.78	108.20
5	A	1627	A	C4-C5-C6	5.72	119.86	117.00
5	A	1947	A	C4-C5-C6	5.72	119.86	117.00
5	A	2544	C	N3-C4-N4	5.72	122.00	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2752	C	N3-C4-N4	5.72	122.00	118.00
5	A	688	G	O4'-C1'-N9	5.72	112.77	108.20
5	A	692	A	C5-C6-N6	-5.72	119.13	123.70
5	A	872	C	N3-C4-N4	5.72	122.00	118.00
5	A	1034	A	C4-C5-C6	5.72	119.86	117.00
5	A	2375	A	C5-C6-N1	-5.72	114.84	117.70
5	A	41	A	C5-C6-N6	-5.72	119.13	123.70
5	A	993	A	C4-C5-C6	5.72	119.86	117.00
5	A	1078	A	O4'-C1'-N9	5.72	112.77	108.20
5	A	1115	A	C4-C5-C6	5.72	119.86	117.00
5	A	1213	G	O4'-C1'-N9	5.72	112.77	108.20
5	A	1334	C	N3-C4-N4	5.72	122.00	118.00
5	A	1712	G	O4'-C1'-N9	5.72	112.77	108.20
5	A	1743	A	C5-C6-N6	-5.72	119.13	123.70
5	A	1943	C	N3-C4-N4	5.72	122.00	118.00
5	A	1982	A	C5-C6-N6	-5.72	119.13	123.70
5	A	2071	A	C5-C6-N6	-5.72	119.13	123.70
5	A	2102	C	N3-C4-C5	-5.72	119.61	121.90
5	A	2777	A	C5-C6-N1	-5.72	114.84	117.70
5	A	364	A	C5-C6-N6	-5.71	119.13	123.70
5	A	425	C	N3-C4-N4	5.71	122.00	118.00
5	A	640	C	N3-C4-C5	-5.71	119.61	121.90
5	A	1375	A	C4-C5-C6	5.71	119.86	117.00
5	A	1421	A	O4'-C1'-N9	5.71	112.77	108.20
5	A	2062	A	C4-C5-C6	5.71	119.86	117.00
5	A	2405	A	C5-C6-N6	-5.71	119.13	123.70
5	A	2495	C	N3-C4-C5	-5.71	119.61	121.90
5	A	2668	A	C5-C6-N6	-5.71	119.13	123.70
5	A	1118	C	N3-C4-N4	5.71	122.00	118.00
5	A	1695	A	C5-C6-N6	-5.71	119.13	123.70
5	A	1994	C	N3-C4-C5	-5.71	119.61	121.90
5	A	2029	G	P-O5'-C5'	5.71	130.04	120.90
5	A	44	A	C5-C6-N1	-5.71	114.84	117.70
5	A	95	A	C4-C5-C6	5.71	119.86	117.00
5	A	366	A	C5-C6-N6	-5.71	119.13	123.70
5	A	561	A	C5-C6-N6	-5.71	119.13	123.70
5	A	791	C	N3-C4-N4	5.71	122.00	118.00
5	A	1260	A	C5-C6-N6	-5.71	119.13	123.70
5	A	1347	A	C4-C5-C6	5.71	119.86	117.00
5	A	1965	A	C5-C6-N6	-5.71	119.13	123.70
5	A	75	G	O4'-C1'-N9	5.71	112.77	108.20
5	A	387	C	N3-C4-N4	5.71	122.00	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1054	A	C4-C5-C6	5.71	119.86	117.00
5	A	1062	C	N3-C4-N4	5.71	122.00	118.00
5	A	2198	G	N1-C6-O6	5.71	123.33	119.90
5	A	2231	C	N3-C4-N4	5.71	122.00	118.00
5	A	2776	G	N3-C2-N2	5.71	123.90	119.90
6	B	44	A	C5-C6-N1	-5.71	114.84	117.70
5	A	639	C	N3-C4-N4	5.71	122.00	118.00
5	A	720	C	N3-C4-C5	-5.71	119.62	121.90
5	A	762	A	C5-C6-N6	-5.71	119.13	123.70
5	A	1042	A	C4-C5-C6	5.71	119.85	117.00
5	A	1398	A	C5-C6-N1	-5.71	114.84	117.70
5	A	1426	A	C4'-C3'-C2'	-5.71	96.89	102.60
5	A	2786	A	C5-C6-N1	-5.71	114.85	117.70
5	A	1534	A	C5-C6-N1	-5.71	114.85	117.70
5	A	1661	A	C5-C6-N1	-5.71	114.85	117.70
5	A	2381	A	C5-C6-N1	-5.71	114.85	117.70
5	A	124	A	C5-C6-N1	-5.71	114.85	117.70
5	A	279	A	C4-C5-C6	5.71	119.85	117.00
5	A	2082	G	C5-C6-O6	-5.71	125.18	128.60
5	A	829	A	C5-C6-N1	-5.70	114.85	117.70
5	A	1134	A	C5-C6-N1	-5.70	114.85	117.70
5	A	1312	A	C5-C6-N6	-5.70	119.14	123.70
5	A	1360	A	C5-C6-N6	-5.70	119.14	123.70
5	A	1521	G	O4'-C1'-N9	5.70	112.76	108.20
5	A	1703	C	N3-C4-N4	5.70	121.99	118.00
5	A	2517	A	O4'-C1'-N9	5.70	112.76	108.20
5	A	2549	C	N3-C4-N4	5.70	121.99	118.00
5	A	2651	C	P-O3'-C3'	-5.70	112.86	119.70
7	C	143	ASN	N-CA-CB	5.70	120.87	110.60
5	A	456	A	C5-C6-N1	-5.70	114.85	117.70
5	A	1760	A	C5-C6-N6	-5.70	119.14	123.70
5	A	2563	C	N3-C4-N4	5.70	121.99	118.00
5	A	2739	C	P-O5'-C5'	5.70	130.02	120.90
5	A	470	A	C4-C5-C6	5.70	119.85	117.00
5	A	653	A	C5-C6-N1	-5.70	114.85	117.70
5	A	1095	C	N3-C4-N4	5.70	121.99	118.00
5	A	1866	C	N3-C4-C5	-5.70	119.62	121.90
5	A	1966	A	C5-C6-N1	-5.70	114.85	117.70
5	A	2466	C	N3-C4-C5	-5.70	119.62	121.90
5	A	494	A	C4-C5-C6	5.70	119.85	117.00
5	A	2805	A	C5-C6-N1	-5.70	114.85	117.70
17	P	43	PHE	CB-CG-CD1	-5.70	116.81	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	90	A	C5-C6-N1	-5.70	114.85	117.70
5	A	482	C	N3-C4-N4	5.70	121.99	118.00
5	A	486	A	C5-C6-N1	-5.70	114.85	117.70
5	A	943	A	O4'-C1'-N9	5.70	112.76	108.20
5	A	1126	A	C4-C5-C6	5.70	119.85	117.00
5	A	150	A	C4-C5-C6	5.70	119.85	117.00
5	A	179	A	C5-C6-N6	-5.70	119.14	123.70
5	A	241	C	N3-C4-C5	-5.70	119.62	121.90
5	A	395	C	N3-C4-N4	5.70	121.99	118.00
5	A	508	C	N3-C4-C5	-5.70	119.62	121.90
5	A	945	C	N3-C4-C5	-5.70	119.62	121.90
5	A	2010	A	C5-C6-N6	-5.70	119.14	123.70
5	A	2093	C	C2-N3-C4	5.70	122.75	119.90
5	A	2237	C	N3-C4-N4	5.70	121.99	118.00
5	A	1575	A	O4'-C1'-N9	5.69	112.75	108.20
5	A	2029	G	P-O3'-C3'	-5.69	112.87	119.70
5	A	2262	A	C5-C6-N1	-5.69	114.85	117.70
5	A	2569	C	N3-C4-C5	-5.69	119.62	121.90
18	Q	45	TYR	CB-CG-CD2	5.69	124.42	121.00
5	A	717	A	C4-C5-C6	5.69	119.85	117.00
5	A	1008	A	C5-C6-N1	-5.69	114.85	117.70
5	A	1330	C	N3-C4-C5	-5.69	119.62	121.90
5	A	1517	A	C5-C6-N6	-5.69	119.15	123.70
5	A	2447	A	O4'-C1'-N9	5.69	112.75	108.20
6	B	37	A	C5-C6-N6	-5.69	119.15	123.70
5	A	282	G	P-O3'-C3'	5.69	126.53	119.70
5	A	971	A	C5-C6-N6	-5.69	119.15	123.70
5	A	1241	C	N3-C4-N4	5.69	121.98	118.00
5	A	1309	G	O4'-C1'-N9	5.69	112.75	108.20
5	A	2042	A	O4'-C1'-N9	5.69	112.75	108.20
5	A	2093	C	N3-C4-N4	5.69	121.98	118.00
5	A	2752	C	N3-C4-C5	-5.69	119.62	121.90
5	A	2816	C	N3-C4-N4	5.69	121.98	118.00
6	B	11	A	C5-C6-N6	-5.69	119.15	123.70
5	A	244	A	C4-C5-C6	5.69	119.84	117.00
5	A	547	A	C5-C6-N1	-5.69	114.86	117.70
5	A	660	G	O4'-C1'-N9	5.69	112.75	108.20
5	A	924	U	O3'-P-O5'	5.69	114.81	104.00
5	A	2859	G	C6-C5-N7	-5.69	126.99	130.40
5	A	1455	C	N3-C4-N4	5.69	121.98	118.00
5	A	1953	C	N3-C4-C5	-5.69	119.62	121.90
5	A	1956	A	C5-C6-N6	-5.69	119.15	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2146	A	C5-C6-N1	-5.69	114.86	117.70
5	A	2916	A	C4-C5-C6	5.69	119.84	117.00
5	A	1495	C	N3-C4-C5	-5.69	119.62	121.90
5	A	1161	A	C5-C6-N1	-5.68	114.86	117.70
5	A	1270	C	N3-C4-N4	5.68	121.98	118.00
5	A	1346	A	O4'-C1'-N9	5.68	112.75	108.20
5	A	1812	A	C5-C6-N1	-5.68	114.86	117.70
5	A	431	A	C5-C6-N6	-5.68	119.15	123.70
5	A	560	A	C4-C5-C6	5.68	119.84	117.00
5	A	725	C	N3-C4-N4	5.68	121.98	118.00
5	A	1392	A	C4-C5-C6	5.68	119.84	117.00
5	A	1452	C	N3-C4-N4	5.68	121.98	118.00
5	A	2200	A	O4'-C1'-N9	5.68	112.75	108.20
5	A	11	G	O4'-C1'-N9	5.68	112.75	108.20
5	A	902	G	O4'-C1'-N9	5.68	112.75	108.20
5	A	1729	C	N3-C4-N4	5.68	121.98	118.00
5	A	373	A	C4-C5-C6	5.68	119.84	117.00
5	A	745	C	N3-C4-N4	5.68	121.97	118.00
5	A	1583	A	O4'-C1'-N9	5.68	112.74	108.20
5	A	1626	U	O4'-C1'-N1	5.68	112.74	108.20
5	A	1766	C	N3-C4-C5	-5.68	119.63	121.90
5	A	1795	C	N3-C4-N4	5.68	121.98	118.00
5	A	1941	A	C5-C6-N1	-5.68	114.86	117.70
5	A	2498	A	C5-C6-N6	-5.68	119.16	123.70
5	A	2570	A	C4-C5-C6	5.68	119.84	117.00
5	A	373	A	C5-C6-N6	-5.68	119.16	123.70
5	A	1205	U	O4'-C1'-N1	5.68	112.74	108.20
5	A	1667	A	C5-C6-N1	-5.68	114.86	117.70
5	A	212	C	N3-C4-C5	-5.68	119.63	121.90
5	A	295	G	O4'-C1'-N9	5.68	112.74	108.20
5	A	906	G	N3-C2-N2	5.68	123.87	119.90
5	A	1020	A	C5-C6-N1	-5.68	114.86	117.70
5	A	2095	C	N3-C4-C5	-5.68	119.63	121.90
5	A	2403	C	O4'-C1'-N1	5.68	112.74	108.20
5	A	2523	G	O4'-C1'-N9	5.68	112.74	108.20
5	A	2799	C	N3-C4-N4	5.68	121.97	118.00
5	A	283	G	O4'-C1'-N9	5.67	112.74	108.20
5	A	897	G	C6-C5-N7	-5.67	127.00	130.40
5	A	1862	C	N3-C4-C5	-5.67	119.63	121.90
5	A	2389	A	C4-C5-C6	5.67	119.84	117.00
5	A	823	G	C8-N9-C1'	-5.67	119.62	127.00
5	A	840	A	O4'-C1'-N9	5.67	112.74	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1113	A	C5-C6-N6	-5.67	119.16	123.70
5	A	218	G	N3-C2-N2	5.67	123.87	119.90
5	A	616	A	C5-C6-N1	-5.67	114.86	117.70
5	A	696	C	N3-C4-N4	5.67	121.97	118.00
5	A	1413	G	O4'-C1'-N9	5.67	112.74	108.20
5	A	2027	A	O4'-C1'-N9	5.67	112.74	108.20
5	A	2744	C	N3-C4-N4	5.67	121.97	118.00
5	A	1347	A	C5-C6-N6	-5.67	119.16	123.70
5	A	698	C	N3-C4-N4	5.67	121.97	118.00
5	A	1346	A	C5-C6-N6	-5.67	119.17	123.70
5	A	1504	A	C4-C5-C6	5.67	119.83	117.00
5	A	2245	G	O4'-C1'-N9	5.67	112.73	108.20
5	A	2383	A	C5-C6-N1	-5.67	114.87	117.70
5	A	2919	A	C5-C6-N1	-5.67	114.86	117.70
6	B	76	A	C4-C5-C6	5.67	119.83	117.00
5	A	1819	C	N3-C4-C5	-5.67	119.63	121.90
5	A	2709	C	N3-C4-N4	5.67	121.97	118.00
5	A	318	A	C5-C6-N6	-5.67	119.17	123.70
5	A	841	A	O4'-C1'-N9	5.67	112.73	108.20
5	A	980	C	N3-C4-C5	-5.67	119.63	121.90
5	A	2276	A	C4-C5-C6	5.67	119.83	117.00
5	A	2643	A	C5-C6-N1	-5.67	114.87	117.70
5	A	2735	A	C5-C6-N6	-5.67	119.17	123.70
5	A	62	C	N3-C4-N4	5.66	121.97	118.00
5	A	582	A	O4'-C1'-N9	5.66	112.73	108.20
5	A	628	C	N3-C4-N4	5.66	121.96	118.00
5	A	923	C	N3-C4-C5	-5.66	119.64	121.90
5	A	1476	C	N3-C4-N4	5.66	121.96	118.00
5	A	1697	A	C5-C6-N1	-5.66	114.87	117.70
5	A	2049	A	C4-C5-C6	5.66	119.83	117.00
5	A	2158	C	N3-C4-C5	-5.66	119.63	121.90
5	A	2187	A	C5-C6-N1	-5.66	114.87	117.70
5	A	2228	A	C4-C5-C6	5.66	119.83	117.00
5	A	2326	C	N3-C4-N4	5.66	121.96	118.00
5	A	912	C	N3-C4-C5	-5.66	119.64	121.90
5	A	1026	A	C5-C6-N6	-5.66	119.17	123.70
5	A	1991	C	N3-C4-N4	5.66	121.96	118.00
5	A	2088	A	C5-C6-N6	-5.66	119.17	123.70
5	A	2846	A	C5-C6-N6	-5.66	119.17	123.70
6	B	25	A	C5-C6-N6	-5.66	119.17	123.70
5	A	38	A	O4'-C1'-N9	5.66	112.73	108.20
5	A	216	A	C5-C6-N6	-5.66	119.17	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	422	C	N3-C4-N4	5.66	121.96	118.00
5	A	578	A	C5-C6-N1	-5.66	114.87	117.70
5	A	608	C	N3-C4-N4	5.66	121.96	118.00
5	A	862	U	P-O5'-C5'	5.66	129.96	120.90
5	A	932	C	C2-N1-C1'	5.66	125.03	118.80
5	A	993	A	C5-C6-N6	-5.66	119.17	123.70
5	A	1266	A	C5-C6-N6	-5.66	119.17	123.70
5	A	1287	A	C5-C6-N6	-5.66	119.17	123.70
5	A	2492	C	N3-C4-C5	-5.66	119.64	121.90
5	A	2790	A	C4-C5-C6	5.66	119.83	117.00
5	A	2860	A	C5-C6-N1	-5.66	114.87	117.70
5	A	2876	A	C5-C6-N6	-5.66	119.17	123.70
6	B	108	C	N3-C4-N4	5.66	121.96	118.00
5	A	401	C	C1'-O4'-C4'	-5.66	105.37	109.90
5	A	468	C	N3-C4-N4	5.66	121.96	118.00
5	A	1056	A	C5-C6-N6	-5.66	119.17	123.70
5	A	1607	C	N3-C4-N4	5.66	121.96	118.00
5	A	2323	C	N3-C4-C5	-5.66	119.64	121.90
5	A	2630	C	N3-C4-C5	-5.66	119.64	121.90
5	A	2781	C	N3-C4-N4	5.66	121.96	118.00
5	A	2819	A	O4'-C1'-N9	5.66	112.73	108.20
5	A	1592	A	C5-C6-N6	-5.66	119.17	123.70
5	A	2564	A	O4'-C1'-N9	5.66	112.72	108.20
5	A	2571	A	C4-C5-C6	5.66	119.83	117.00
6	B	39	A	C5-C6-N6	-5.66	119.17	123.70
5	A	124	A	C5-C6-N6	-5.66	119.18	123.70
5	A	333	A	C4-C5-C6	5.66	119.83	117.00
5	A	414	C	N3-C4-C5	-5.66	119.64	121.90
5	A	436	A	C5-C6-N6	-5.66	119.18	123.70
5	A	2212	C	N3-C4-C5	-5.66	119.64	121.90
5	A	2539	C	N3-C4-N4	5.66	121.96	118.00
5	A	2869	A	C4-C5-C6	5.66	119.83	117.00
6	B	40	C	N3-C4-C5	-5.66	119.64	121.90
5	A	234	C	N3-C4-C5	-5.65	119.64	121.90
5	A	1942	A	C5-C6-N6	-5.65	119.18	123.70
5	A	969	C	N3-C4-N4	5.65	121.96	118.00
5	A	970	A	C4-C5-C6	5.65	119.83	117.00
5	A	2525	C	O4'-C1'-N1	5.65	112.72	108.20
5	A	2550	C	N3-C4-C5	-5.65	119.64	121.90
5	A	345	A	C5-C6-N6	-5.65	119.18	123.70
5	A	819	G	O4'-C1'-N9	5.65	112.72	108.20
5	A	1149	A	C5-C6-N1	-5.65	114.87	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1515	C	N3-C4-N4	5.65	121.96	118.00
5	A	1562	A	C4-C5-C6	5.65	119.83	117.00
5	A	1961	A	C4-C5-C6	5.65	119.83	117.00
5	A	2298	A	O4'-C1'-N9	5.65	112.72	108.20
5	A	2616	A	C5-C6-N6	-5.65	119.18	123.70
6	B	68	C	N3-C4-C5	-5.65	119.64	121.90
5	A	257	G	O4'-C1'-N9	5.65	112.72	108.20
5	A	763	A	C5-C6-N6	-5.65	119.18	123.70
5	A	1141	A	C5-C6-N6	-5.65	119.18	123.70
5	A	2295	A	C5-C6-N6	-5.65	119.18	123.70
5	A	2501	G	N3-C2-N2	5.65	123.85	119.90
5	A	257	G	N3-C2-N2	5.65	123.85	119.90
5	A	646	A	C5-C6-N6	-5.65	119.18	123.70
5	A	802	G	C5-C6-O6	-5.65	125.21	128.60
5	A	838	C	N3-C4-N4	5.65	121.95	118.00
5	A	1219	C	N3-C4-N4	5.65	121.95	118.00
5	A	1401	C	N3-C4-C5	-5.65	119.64	121.90
5	A	1614	A	C5-C6-N6	-5.65	119.18	123.70
5	A	2599	G	O4'-C1'-N9	5.65	112.72	108.20
5	A	2767	A	C5-C6-N6	-5.65	119.18	123.70
5	A	2817	C	N3-C4-N4	5.65	121.95	118.00
5	A	31	C	N3-C4-C5	-5.65	119.64	121.90
5	A	137	G	O4'-C1'-N9	5.65	112.72	108.20
5	A	1607	C	N3-C4-C5	-5.65	119.64	121.90
5	A	10	A	C5-C6-N6	-5.64	119.18	123.70
5	A	212	C	N3-C4-N4	5.64	121.95	118.00
5	A	635	C	N3-C4-C5	-5.64	119.64	121.90
5	A	1396	C	N3-C4-N4	5.64	121.95	118.00
5	A	1845	A	C5-C6-N6	-5.64	119.18	123.70
5	A	2007	A	C5-C6-N1	-5.64	114.88	117.70
5	A	2350	G	C8-N9-C1'	-5.64	119.66	127.00
5	A	1415	C	N3-C4-C5	-5.64	119.64	121.90
5	A	1714	A	C5-C6-N1	-5.64	114.88	117.70
5	A	1791	A	C5-C6-N6	-5.64	119.19	123.70
5	A	1854	G	O4'-C1'-N9	5.64	112.71	108.20
5	A	2447	A	C4-C5-C6	5.64	119.82	117.00
5	A	2630	C	N3-C4-N4	5.64	121.95	118.00
5	A	104	C	N3-C4-C5	-5.64	119.64	121.90
5	A	551	A	C5-C6-N1	-5.64	114.88	117.70
5	A	1542	A	C4-C5-C6	5.64	119.82	117.00
5	A	1981	A	C5-C6-N1	-5.64	114.88	117.70
5	A	2451	C	N3-C4-N4	5.64	121.95	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2839	C	N3-C4-C5	-5.64	119.64	121.90
5	A	777	C	N3-C4-C5	-5.64	119.64	121.90
5	A	948	A	C5-C6-N1	-5.64	114.88	117.70
5	A	1422	C	N3-C4-N4	5.64	121.95	118.00
5	A	1949	C	N3-C4-C5	-5.64	119.64	121.90
5	A	2087	A	C5-C6-N1	-5.64	114.88	117.70
5	A	2740	A	O4'-C1'-N9	5.64	112.71	108.20
5	A	2866	C	N3-C4-N4	5.64	121.95	118.00
5	A	1672	A	C5-C6-N1	-5.64	114.88	117.70
5	A	2219	G	C4-N9-C1'	5.64	133.83	126.50
5	A	2587	C	N3-C4-N4	5.64	121.95	118.00
5	A	91	A	C5-C6-N6	-5.64	119.19	123.70
5	A	173	A	C5-C6-N6	-5.64	119.19	123.70
5	A	500	A	C5-C6-N6	-5.64	119.19	123.70
5	A	542	G	O4'-C1'-N9	5.64	112.71	108.20
5	A	585	G	O4'-C1'-N9	5.64	112.71	108.20
5	A	635	C	N3-C4-N4	5.64	121.95	118.00
5	A	763	A	O4'-C1'-N9	5.64	112.71	108.20
5	A	1172	A	C5-C6-N1	-5.64	114.88	117.70
5	A	1555	A	C5-C6-N6	-5.64	119.19	123.70
5	A	1637	G	O4'-C1'-N9	5.64	112.71	108.20
5	A	2089	A	C5-C6-N6	-5.64	119.19	123.70
5	A	2136	C	N3-C4-N4	5.64	121.95	118.00
5	A	2504	C	N3-C4-N4	5.64	121.95	118.00
5	A	2831	A	C5-C6-N1	-5.64	114.88	117.70
5	A	110	A	C4-C5-C6	5.63	119.82	117.00
5	A	339	A	C4-C5-C6	5.63	119.82	117.00
5	A	1028	C	N3-C4-C5	-5.63	119.65	121.90
5	A	1405	A	C5-C6-N6	-5.63	119.19	123.70
5	A	1992	C	N3-C4-C5	-5.63	119.65	121.90
5	A	2283	C	N3-C4-N4	5.63	121.94	118.00
5	A	2818	C	N3-C4-N4	5.63	121.94	118.00
5	A	2866	C	N3-C4-C5	-5.63	119.65	121.90
6	B	9	C	N3-C4-N4	5.63	121.94	118.00
5	A	1094	A	C5-C6-N1	-5.63	114.88	117.70
5	A	134	C	N3-C4-C5	-5.63	119.65	121.90
5	A	1649	C	N3-C4-C5	-5.63	119.65	121.90
5	A	1679	A	O4'-C1'-N9	5.63	112.70	108.20
5	A	2869	A	O4'-C4'-C3'	-5.63	98.37	104.00
5	A	1174	A	C5-C6-N6	-5.63	119.20	123.70
5	A	2405	A	C5-C6-N1	-5.63	114.89	117.70
5	A	132	C	N3-C4-C5	-5.63	119.65	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	247	A	O4'-C1'-N9	5.63	112.70	108.20
5	A	745	C	N3-C4-C5	-5.63	119.65	121.90
5	A	884	C	N3-C4-C5	-5.63	119.65	121.90
5	A	992	G	O4'-C1'-N9	5.63	112.70	108.20
5	A	1523	U	P-O3'-C3'	5.63	126.45	119.70
5	A	1839	A	C5-C6-N1	-5.63	114.89	117.70
5	A	349	C	N3-C4-C5	-5.63	119.65	121.90
5	A	702	A	C5-C6-N6	-5.63	119.20	123.70
5	A	1381	A	C5-C6-N1	-5.63	114.89	117.70
5	A	1988	G	O4'-C1'-N9	5.63	112.70	108.20
5	A	2034	A	O4'-C1'-N9	5.63	112.70	108.20
5	A	2307	A	C4-C5-C6	5.63	119.81	117.00
5	A	2468	A	C5-C6-N6	-5.63	119.20	123.70
5	A	1150	C	N3-C4-N4	5.62	121.94	118.00
5	A	2305	G	O4'-C1'-N9	5.62	112.70	108.20
5	A	254	A	C5-C6-N1	-5.62	114.89	117.70
5	A	642	G	O4'-C1'-N9	5.62	112.70	108.20
5	A	690	A	C4-C5-C6	5.62	119.81	117.00
5	A	1202	A	C5-C6-N1	-5.62	114.89	117.70
5	A	1308	A	C5-C6-N6	-5.62	119.20	123.70
5	A	2126	G	O4'-C1'-N9	5.62	112.70	108.20
5	A	2137	U	O4'-C1'-N1	5.62	112.70	108.20
5	A	2357	A	C4-C5-C6	5.62	119.81	117.00
5	A	2541	C	N3-C4-C5	-5.62	119.65	121.90
5	A	2902	A	C5-C6-N6	-5.62	119.20	123.70
5	A	200	A	C5-C6-N6	-5.62	119.20	123.70
5	A	437	A	C5-C6-N6	-5.62	119.20	123.70
5	A	609	C	N3-C4-C5	-5.62	119.65	121.90
5	A	624	C	N3-C4-C5	-5.62	119.65	121.90
5	A	2261	C	N3-C4-C5	-5.62	119.65	121.90
5	A	537	A	C5-C6-N1	-5.62	114.89	117.70
5	A	899	C	N3-C4-C5	-5.62	119.65	121.90
5	A	956	A	C5-C6-N1	-5.62	114.89	117.70
5	A	1122	C	N3-C4-N4	5.62	121.93	118.00
5	A	1650	C	P-O5'-C5'	5.62	129.89	120.90
5	A	1685	A	O4'-C1'-N9	5.62	112.70	108.20
5	A	2348	C	N3-C4-N4	5.62	121.93	118.00
5	A	188	C	N3-C4-C5	-5.62	119.65	121.90
5	A	202	A	C5-C6-N1	-5.62	114.89	117.70
5	A	719	C	N3-C4-C5	-5.62	119.65	121.90
5	A	1423	A	C5-C6-N6	-5.62	119.20	123.70
5	A	2015	G	O4'-C1'-N9	5.62	112.69	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2019	C	C2-N3-C4	5.62	122.71	119.90
5	A	2060	A	C5-C6-N6	-5.62	119.21	123.70
5	A	893	A	C5-C6-N6	-5.62	119.21	123.70
5	A	1368	U	O4'-C1'-N1	5.62	112.69	108.20
5	A	226	A	C5-C6-N6	-5.62	119.21	123.70
5	A	322	A	C5-C6-N1	-5.62	114.89	117.70
5	A	624	C	N3-C4-N4	5.62	121.93	118.00
5	A	1265	A	C5-C6-N6	-5.62	119.21	123.70
5	A	1723	A	C5-C6-N6	-5.62	119.21	123.70
5	A	2208	C	N3-C4-N4	5.62	121.93	118.00
5	A	2826	A	C5-C6-N6	-5.62	119.21	123.70
5	A	2883	C	N3-C4-C5	-5.62	119.65	121.90
5	A	86	C	N3-C4-N4	5.61	121.93	118.00
5	A	1225	G	O4'-C1'-N9	5.61	112.69	108.20
5	A	1625	C	N3-C4-N4	5.61	121.93	118.00
5	A	1753	C	N3-C4-C5	-5.61	119.66	121.90
5	A	2197	G	O4'-C1'-N9	5.61	112.69	108.20
5	A	2506	C	N3-C4-C5	-5.61	119.66	121.90
5	A	2721	C	N3-C4-N4	5.61	121.93	118.00
5	A	2777	A	O4'-C1'-N9	5.61	112.69	108.20
5	A	859	C	N3-C4-N4	5.61	121.93	118.00
5	A	2148	A	C4-C5-C6	5.61	119.81	117.00
5	A	2178	C	N3-C4-C5	-5.61	119.66	121.90
16	O	67	SER	N-CA-CB	5.61	118.92	110.50
5	A	508	C	N3-C4-N4	5.61	121.93	118.00
5	A	594	C	P-O3'-C3'	5.61	126.43	119.70
5	A	634	A	C5-C6-N1	-5.61	114.89	117.70
5	A	798	A	C5-C6-N6	-5.61	119.21	123.70
5	A	882	A	C4-C5-C6	5.61	119.81	117.00
5	A	131	C	P-O5'-C5'	5.61	129.88	120.90
5	A	133	A	C5-C6-N6	-5.61	119.21	123.70
5	A	623	A	C5-C6-N6	-5.61	119.21	123.70
5	A	688	G	N3-C2-N2	5.61	123.83	119.90
5	A	863	C	N3-C4-N4	5.61	121.93	118.00
5	A	1695	A	C4-C5-C6	5.61	119.80	117.00
5	A	2175	C	N3-C4-N4	5.61	121.93	118.00
5	A	952	A	C5-C6-N1	-5.61	114.90	117.70
5	A	2000	A	C5-C6-N6	-5.61	119.21	123.70
5	A	2423	C	C2-N1-C1'	5.61	124.97	118.80
5	A	2450	G	O4'-C1'-N9	5.61	112.69	108.20
5	A	2517	A	C5-C6-N6	-5.61	119.21	123.70
5	A	2689	A	C5-C6-N6	-5.61	119.21	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	473	C	N3-C4-N4	5.61	121.92	118.00
5	A	1130	A	C5-C6-N1	-5.61	114.90	117.70
5	A	1236	G	O4'-C1'-N9	5.61	112.69	108.20
5	A	1509	C	N3-C4-C5	-5.61	119.66	121.90
5	A	1559	C	N3-C4-C5	-5.61	119.66	121.90
5	A	1848	A	C5-C6-N6	-5.61	119.22	123.70
5	A	2055	U	P-O3'-C3'	5.61	126.43	119.70
5	A	2578	G	O4'-C1'-N9	5.61	112.68	108.20
5	A	2916	A	C5-C6-N6	-5.61	119.22	123.70
6	B	45	C	N3-C4-N4	5.61	121.92	118.00
5	A	117	A	C5-C6-N1	-5.60	114.90	117.70
5	A	219	A	C5-C6-N1	-5.60	114.90	117.70
5	A	395	C	N3-C4-C5	-5.60	119.66	121.90
5	A	732	A	C5-C6-N6	-5.60	119.22	123.70
5	A	1221	A	C4-C5-C6	5.60	119.80	117.00
5	A	1820	A	C5-C6-N1	-5.60	114.90	117.70
5	A	718	C	N3-C4-C5	-5.60	119.66	121.90
5	A	1618	A	P-O5'-C5'	5.60	129.87	120.90
5	A	2107	C	N3-C4-N4	5.60	121.92	118.00
5	A	2191	A	C5-C6-N6	-5.60	119.22	123.70
5	A	2276	A	C5-C6-N1	-5.60	114.90	117.70
5	A	2302	A	C5-C6-N6	-5.60	119.22	123.70
5	A	2349	A	C5-C6-N6	-5.60	119.22	123.70
5	A	1456	A	C5-C6-N6	-5.60	119.22	123.70
5	A	1730	C	N3-C4-C5	-5.60	119.66	121.90
5	A	134	C	N3-C4-N4	5.60	121.92	118.00
5	A	199	A	C5-C6-N6	-5.60	119.22	123.70
5	A	1605	C	P-O5'-C5'	5.60	129.86	120.90
5	A	2570	A	C5-C6-N1	-5.60	114.90	117.70
5	A	182	C	N3-C4-N4	5.60	121.92	118.00
5	A	325	A	C4-C5-C6	5.60	119.80	117.00
5	A	808	A	C5-C6-N1	-5.60	114.90	117.70
5	A	833	C	N3-C4-N4	5.60	121.92	118.00
5	A	1427	G	C6-C5-N7	-5.60	127.04	130.40
5	A	1739	C	N3-C4-N4	5.60	121.92	118.00
5	A	1792	G	O4'-C1'-N9	5.60	112.68	108.20
5	A	1857	G	O4'-C1'-N9	5.60	112.68	108.20
5	A	2121	U	C6-N1-C1'	-5.60	113.36	121.20
5	A	2216	A	C5-C6-N1	-5.60	114.90	117.70
5	A	2250	G	O4'-C1'-N9	5.60	112.68	108.20
5	A	2593	A	C5-C6-N6	-5.60	119.22	123.70
5	A	2883	C	N3-C4-N4	5.60	121.92	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	105	A	O4'-C1'-N9	5.60	112.68	108.20
5	A	1180	C	N3-C4-C5	-5.60	119.66	121.90
5	A	144	A	C4-C5-C6	5.59	119.80	117.00
5	A	314	A	C5-C6-N6	-5.59	119.22	123.70
5	A	429	A	C5-C6-N1	-5.59	114.90	117.70
5	A	484	C	N3-C4-N4	5.59	121.92	118.00
5	A	841	A	C5-C6-N6	-5.59	119.22	123.70
5	A	1026	A	C5-C6-N1	-5.59	114.90	117.70
5	A	1735	A	C5-C6-N1	-5.59	114.90	117.70
5	A	2025	C	N3-C4-C5	-5.59	119.66	121.90
5	A	2080	A	C4-C5-C6	5.59	119.80	117.00
5	A	2767	A	C5-C6-N1	-5.59	114.90	117.70
5	A	388	A	C5-C6-N1	-5.59	114.90	117.70
5	A	987	A	C4-C5-C6	5.59	119.80	117.00
5	A	1190	A	C4-C5-C6	5.59	119.80	117.00
5	A	2845	A	O4'-C1'-N9	5.59	112.67	108.20
5	A	354	A	C5-C6-N6	-5.59	119.23	123.70
5	A	717	A	C5-C6-N6	-5.59	119.23	123.70
5	A	739	C	N3-C4-N4	5.59	121.91	118.00
5	A	1583	A	C5-C6-N6	-5.59	119.23	123.70
5	A	1782	G	C5'-C4'-C3'	-5.59	107.05	116.00
5	A	2208	C	N3-C4-C5	-5.59	119.66	121.90
5	A	2379	C	N3-C4-C5	-5.59	119.66	121.90
5	A	97	C	N3-C4-C5	-5.59	119.66	121.90
5	A	401	C	N3-C4-C5	-5.59	119.66	121.90
5	A	412	A	C5-C6-N6	-5.59	119.23	123.70
5	A	479	A	C5-C6-N6	-5.59	119.23	123.70
5	A	675	C	N3-C4-N4	5.59	121.91	118.00
5	A	958	A	C5-C6-N6	-5.59	119.23	123.70
5	A	1197	A	C5-C6-N6	-5.59	119.23	123.70
5	A	1287	A	C5-C6-N1	-5.59	114.91	117.70
5	A	1374	C	N3-C4-C5	-5.59	119.66	121.90
5	A	1670	C	N3-C4-N4	5.59	121.91	118.00
5	A	2091	A	C5-C6-N6	-5.59	119.23	123.70
5	A	2208	C	C6-N1-C1'	-5.59	114.09	120.80
5	A	2608	C	N3-C4-N4	5.59	121.91	118.00
5	A	2782	A	P-O3'-C3'	5.59	126.41	119.70
5	A	2831	A	C5-C6-N6	-5.59	119.23	123.70
5	A	1981	A	C5-C6-N6	-5.59	119.23	123.70
5	A	2165	A	C5-C6-N6	-5.59	119.23	123.70
6	B	76	A	C5-C6-N6	-5.59	119.23	123.70
5	A	139	A	C5-C6-N1	-5.59	114.91	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	799	A	C5-C6-N6	-5.59	119.23	123.70
5	A	1036	A	C5-C6-N1	-5.59	114.91	117.70
5	A	1855	C	N3-C4-N4	5.59	121.91	118.00
5	A	2417	A	C5-C6-N1	-5.59	114.91	117.70
6	B	60	C	N3-C4-N4	5.59	121.91	118.00
5	A	198	A	C4-C5-C6	5.58	119.79	117.00
5	A	562	C	N3-C4-C5	-5.58	119.67	121.90
5	A	774	A	C4-C5-C6	5.58	119.79	117.00
5	A	869	U	O4'-C1'-N1	5.58	112.67	108.20
5	A	888	A	C5-C6-N1	-5.58	114.91	117.70
5	A	974	A	C4-C5-C6	5.58	119.79	117.00
5	A	1034	A	O4'-C1'-N9	5.58	112.67	108.20
5	A	1396	C	N3-C4-C5	-5.58	119.67	121.90
5	A	1449	C	C2-N1-C1'	5.58	124.94	118.80
5	A	1931	C	P-O5'-C5'	5.58	129.84	120.90
5	A	2683	A	C5-C6-N6	-5.58	119.23	123.70
5	A	570	C	N3-C4-N4	5.58	121.91	118.00
5	A	1066	A	C5-C6-N6	-5.58	119.23	123.70
5	A	1171	G	N3-C2-N2	5.58	123.81	119.90
5	A	1210	A	C5-C6-N1	-5.58	114.91	117.70
5	A	1252	G	P-O3'-C3'	5.58	126.40	119.70
5	A	1380	U	O4'-C1'-N1	5.58	112.67	108.20
5	A	2008	C	N3-C4-C5	-5.58	119.67	121.90
5	A	2511	A	C5-C6-N6	-5.58	119.23	123.70
5	A	2754	A	P-O5'-C5'	5.58	129.83	120.90
5	A	2807	A	C4-C5-C6	5.58	119.79	117.00
6	B	81	G	O4'-C1'-N9	5.58	112.67	108.20
5	A	273	A	C5-C6-N1	-5.58	114.91	117.70
5	A	429	A	C4-C5-C6	5.58	119.79	117.00
5	A	557	U	P-O5'-C5'	5.58	129.83	120.90
5	A	1426	A	C5-C6-N1	-5.58	114.91	117.70
5	A	1677	A	C5-C6-N1	-5.58	114.91	117.70
5	A	2069	U	P-O3'-C3'	5.58	126.40	119.70
5	A	2167	C	N3-C4-C5	-5.58	119.67	121.90
5	A	2298	A	C5-C6-N6	-5.58	119.23	123.70
5	A	2860	A	P-O3'-C3'	-5.58	113.00	119.70
5	A	2875	A	C5-C6-N6	-5.58	119.23	123.70
5	A	950	U	P-O5'-C5'	5.58	129.83	120.90
5	A	1005	A	C5-C6-N6	-5.58	119.24	123.70
5	A	5	A	C5-C6-N6	-5.58	119.24	123.70
5	A	314	A	C5-C6-N1	-5.58	114.91	117.70
5	A	343	A	C4-C5-C6	5.58	119.79	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	840	A	C5-C6-N6	-5.58	119.24	123.70
5	A	943	A	C5-C6-N1	-5.58	114.91	117.70
5	A	1124	C	N3-C4-C5	-5.58	119.67	121.90
5	A	1197	A	C4-C5-C6	5.58	119.79	117.00
5	A	2390	A	C5-C6-N1	-5.58	114.91	117.70
5	A	2834	A	P-O3'-C3'	5.58	126.39	119.70
5	A	2927	A	C5-C6-N6	-5.58	119.24	123.70
14	L	10	GLU	N-CA-CB	5.58	120.64	110.60
5	A	1925	A	O4'-C1'-N9	5.58	112.66	108.20
5	A	2567	C	N3-C4-N4	5.58	121.90	118.00
5	A	867	A	P-O3'-C3'	5.58	126.39	119.70
5	A	981	C	N3-C4-C5	-5.58	119.67	121.90
5	A	1096	A	P-O3'-C3'	-5.58	113.01	119.70
5	A	1353	C	O4'-C1'-N1	5.58	112.66	108.20
5	A	2216	A	C5-C6-N6	-5.58	119.24	123.70
5	A	437	A	C5-C6-N1	-5.57	114.91	117.70
5	A	2511	A	C5-C6-N1	-5.57	114.91	117.70
5	A	553	A	C5-C6-N6	-5.57	119.24	123.70
5	A	1585	A	C5-C6-N6	-5.57	119.24	123.70
5	A	1660	C	N3-C4-N4	5.57	121.90	118.00
5	A	2189	G	O4'-C1'-N9	5.57	112.66	108.20
5	A	2374	G	N1-C6-O6	5.57	123.24	119.90
5	A	529	C	N3-C4-C5	-5.57	119.67	121.90
5	A	1175	A	C4-C5-C6	5.57	119.79	117.00
5	A	2206	C	N3-C4-N4	5.57	121.90	118.00
6	B	24	C	N3-C4-N4	5.57	121.90	118.00
5	A	649	G	C5-C6-O6	-5.57	125.26	128.60
5	A	1680	A	C4-C5-C6	5.57	119.78	117.00
5	A	1756	U	O4'-C1'-N1	5.57	112.66	108.20
5	A	2784	C	N3-C4-N4	5.57	121.90	118.00
5	A	2798	C	N3-C4-N4	5.57	121.90	118.00
5	A	213	C	N3-C4-N4	5.57	121.90	118.00
5	A	609	C	N3-C4-N4	5.57	121.90	118.00
5	A	1536	A	C5-C6-N6	-5.57	119.25	123.70
5	A	2500	A	C4-C5-C6	5.57	119.78	117.00
5	A	2645	C	N3-C4-C5	-5.57	119.67	121.90
5	A	21	A	C5-C6-N1	-5.57	114.92	117.70
5	A	329	A	C5-C6-N1	-5.57	114.92	117.70
5	A	672	C	N3-C4-N4	5.57	121.90	118.00
5	A	752	A	O4'-C1'-N9	5.57	112.65	108.20
5	A	764	C	N3-C4-N4	5.57	121.90	118.00
5	A	1320	G	O4'-C1'-N9	5.57	112.65	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1663	A	C5-C6-N6	-5.57	119.25	123.70
5	A	2303	A	C4-C5-C6	5.57	119.78	117.00
5	A	2417	A	C4-C5-C6	5.57	119.78	117.00
5	A	2743	G	C6-C5-N7	-5.57	127.06	130.40
5	A	1941	A	C5-C6-N6	-5.56	119.25	123.70
5	A	2356	A	C5-C6-N1	-5.56	114.92	117.70
5	A	501	A	C4-C5-C6	5.56	119.78	117.00
5	A	1866	C	N3-C4-N4	5.56	121.89	118.00
5	A	2210	G	P-O5'-C5'	-5.56	112.00	120.90
5	A	2302	A	C5-C6-N1	-5.56	114.92	117.70
5	A	2926	C	N3-C4-C5	-5.56	119.67	121.90
6	B	55	A	C5-C6-N1	-5.56	114.92	117.70
5	A	1432	A	O4'-C1'-N9	5.56	112.65	108.20
5	A	211	C	N3-C4-C5	-5.56	119.68	121.90
5	A	502	C	N3-C4-N4	5.56	121.89	118.00
5	A	763	A	C5-C6-N1	-5.56	114.92	117.70
5	A	1553	A	C5-C6-N6	-5.56	119.25	123.70
5	A	1868	G	O4'-C1'-N9	5.56	112.65	108.20
5	A	2111	A	C4-C5-C6	5.56	119.78	117.00
5	A	2477	A	C5-C6-N1	-5.56	114.92	117.70
5	A	28	A	C5-C6-N6	-5.56	119.25	123.70
5	A	274	A	C4-C5-C6	5.56	119.78	117.00
5	A	664	C	N3-C4-N4	5.56	121.89	118.00
5	A	931	C	N3-C4-N4	5.56	121.89	118.00
5	A	935	A	C5-C6-N6	-5.56	119.25	123.70
5	A	1126	A	C5-C6-N6	-5.56	119.25	123.70
5	A	1933	G	O4'-C1'-N9	5.56	112.65	108.20
5	A	2078	A	C5-C6-N6	-5.56	119.25	123.70
5	A	2175	C	N3-C4-C5	-5.56	119.68	121.90
5	A	2711	G	O4'-C1'-N9	5.56	112.65	108.20
5	A	76	C	N3-C4-C5	-5.56	119.68	121.90
5	A	1009	U	O4'-C1'-N1	5.56	112.64	108.20
5	A	2252	A	C4-C5-C6	5.56	119.78	117.00
5	A	2340	A	C5-C6-N6	-5.56	119.25	123.70
5	A	507	A	C4-C5-C6	5.55	119.78	117.00
5	A	1930	A	C5-C6-N1	-5.55	114.92	117.70
5	A	2202	A	O4'-C1'-N9	5.55	112.64	108.20
5	A	2459	A	C5-C6-N6	-5.55	119.26	123.70
5	A	2484	G	P-O5'-C5'	5.55	129.79	120.90
5	A	2617	G	O4'-C1'-N9	5.55	112.64	108.20
5	A	2723	G	O4'-C1'-N9	5.55	112.64	108.20
5	A	895	G	C5-C6-O6	-5.55	125.27	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1200	G	N3-C2-N2	5.55	123.78	119.90
5	A	1302	A	C5-C6-N1	-5.55	114.92	117.70
5	A	1329	C	N3-C4-C5	-5.55	119.68	121.90
5	A	1422	C	N3-C4-C5	-5.55	119.68	121.90
5	A	1620	A	C4-C5-C6	5.55	119.78	117.00
5	A	1745	A	C5-C6-N6	-5.55	119.26	123.70
5	A	1992	C	N3-C4-N4	5.55	121.89	118.00
5	A	2023	C	N3-C4-N4	5.55	121.89	118.00
5	A	2134	A	C5'-C4'-C3'	-5.55	107.12	116.00
5	A	2187	A	C5-C6-N6	-5.55	119.26	123.70
5	A	2193	C	N3-C4-C5	-5.55	119.68	121.90
5	A	2535	U	O4'-C1'-N1	5.55	112.64	108.20
6	B	50	A	C5-C6-N1	-5.55	114.92	117.70
5	A	715	A	C4-C5-C6	5.55	119.78	117.00
5	A	727	A	C5-C6-N1	-5.55	114.93	117.70
5	A	1308	A	C4-C5-C6	5.55	119.78	117.00
5	A	1816	A	C5-C6-N1	-5.55	114.92	117.70
5	A	2139	G	O4'-C1'-N9	5.55	112.64	108.20
5	A	2296	A	C5-C6-N6	-5.55	119.26	123.70
5	A	2454	A	C5-C6-N6	-5.55	119.26	123.70
5	A	2602	C	P-O5'-C5'	5.55	129.78	120.90
5	A	2754	A	C5-C6-N6	-5.55	119.26	123.70
5	A	176	A	C5-C6-N6	-5.55	119.26	123.70
5	A	1615	A	C5-C6-N1	-5.55	114.93	117.70
5	A	1850	A	O4'-C1'-N9	5.55	112.64	108.20
5	A	1928	A	C5-C6-N1	-5.55	114.93	117.70
5	A	2807	A	C5'-C4'-C3'	-5.55	107.12	116.00
5	A	2906	U	P-O3'-C3'	-5.55	113.05	119.70
5	A	790	A	C4-C5-C6	5.54	119.77	117.00
5	A	1173	A	C5-C6-N1	-5.54	114.93	117.70
5	A	1215	U	O4'-C1'-N1	5.54	112.64	108.20
5	A	2704	A	O4'-C1'-N9	5.54	112.64	108.20
5	A	2899	C	N3-C4-C5	-5.54	119.68	121.90
5	A	531	C	N3-C4-C5	-5.54	119.68	121.90
5	A	1834	C	N3-C4-C5	-5.54	119.68	121.90
5	A	2018	A	C5-C6-N1	-5.54	114.93	117.70
5	A	2030	A	C5-C6-N1	-5.54	114.93	117.70
5	A	2434	G	N3-C2-N2	5.54	123.78	119.90
5	A	2574	G	O4'-C1'-N9	5.54	112.63	108.20
5	A	2590	A	C4-C5-C6	5.54	119.77	117.00
5	A	2596	G	O4'-C1'-N9	5.54	112.64	108.20
5	A	2762	A	O4'-C1'-N9	5.54	112.63	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	125	A	C4-C5-C6	5.54	119.77	117.00
5	A	911	G	C5-C6-N1	-5.54	108.73	111.50
5	A	924	U	C4'-C3'-C2'	-5.54	97.06	102.60
5	A	1253	A	O4'-C1'-N9	5.54	112.63	108.20
5	A	1541	A	C5-C6-N1	-5.54	114.93	117.70
5	A	1600	G	N3-C2-N2	5.54	123.78	119.90
5	A	1809	A	C5-C6-N1	-5.54	114.93	117.70
5	A	2364	A	C5-C6-N1	-5.54	114.93	117.70
5	A	2503	C	N3-C4-C5	-5.54	119.68	121.90
5	A	2883	C	P-O3'-C3'	5.54	126.35	119.70
6	B	32	U	P-O3'-C3'	5.54	126.35	119.70
5	A	870	A	C5-C6-N1	-5.54	114.93	117.70
6	B	117	A	C5-C6-N6	-5.54	119.27	123.70
5	A	540	G	O4'-C1'-N9	5.54	112.63	108.20
5	A	917	A	O4'-C1'-N9	5.54	112.63	108.20
5	A	1795	C	N3-C4-C5	-5.54	119.69	121.90
5	A	2073	C	N3-C4-C5	-5.54	119.69	121.90
5	A	241	C	N3-C4-N4	5.54	121.88	118.00
5	A	345	A	C5-C6-N1	-5.54	114.93	117.70
5	A	936	C	N3-C4-N4	5.54	121.88	118.00
5	A	1402	C	N3-C4-N4	5.54	121.88	118.00
5	A	1491	A	C5-C6-N6	-5.54	119.27	123.70
5	A	1597	C	N3-C4-C5	-5.54	119.69	121.90
5	A	1657	C	N3-C4-C5	-5.54	119.69	121.90
5	A	1930	A	C4-C5-C6	5.54	119.77	117.00
6	B	73	G	O4'-C1'-N9	5.54	112.63	108.20
5	A	477	A	C5-C6-N6	-5.53	119.27	123.70
5	A	1066	A	C4-C5-C6	5.53	119.77	117.00
5	A	1099	C	O4'-C1'-N1	5.53	112.63	108.20
5	A	1658	G	C4'-C3'-C2'	-5.53	97.07	102.60
5	A	1697	A	C5-C6-N6	-5.53	119.27	123.70
5	A	2110	C	N3-C4-N4	5.53	121.87	118.00
5	A	2541	C	P-O5'-C5'	5.53	129.75	120.90
6	B	99	A	C5-C6-N1	-5.53	114.93	117.70
5	A	261	C	N3-C4-C5	-5.53	119.69	121.90
5	A	1089	C	N3-C4-N4	5.53	121.87	118.00
5	A	1398	A	C5-C6-N6	-5.53	119.27	123.70
6	B	9	C	N3-C4-C5	-5.53	119.69	121.90
5	A	289	C	N3-C4-C5	-5.53	119.69	121.90
5	A	851	A	C5-C6-N6	-5.53	119.28	123.70
5	A	1231	G	O4'-C1'-N9	5.53	112.62	108.20
5	A	1656	C	N3-C4-C5	-5.53	119.69	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2152	A	C4-C5-C6	5.53	119.77	117.00
5	A	2406	A	C5-C6-N1	-5.53	114.94	117.70
5	A	2589	C	N3-C4-C5	-5.53	119.69	121.90
5	A	2673	A	C5-C6-N6	-5.53	119.28	123.70
6	B	39	A	O4'-C1'-N9	5.53	112.62	108.20
6	B	45	C	C6-N1-C2	-5.53	118.09	120.30
5	A	46	C	N3-C4-N4	5.53	121.87	118.00
5	A	541	G	O4'-C1'-N9	5.53	112.62	108.20
5	A	1199	C	N3-C4-C5	-5.53	119.69	121.90
5	A	1293	A	C5-C6-N6	-5.53	119.28	123.70
5	A	1351	U	O4'-C1'-N1	5.53	112.62	108.20
5	A	302	A	C4-C5-C6	5.53	119.76	117.00
5	A	476	A	C5-C6-N6	-5.53	119.28	123.70
5	A	524	A	C5-C6-N1	-5.53	114.94	117.70
5	A	631	G	O4'-C1'-N9	5.53	112.62	108.20
5	A	1248	C	N3-C4-C5	-5.53	119.69	121.90
5	A	2141	A	C5-C6-N6	-5.53	119.28	123.70
5	A	2506	C	O4'-C1'-N1	5.53	112.62	108.20
5	A	2678	U	P-O5'-C5'	5.53	129.74	120.90
5	A	2721	C	N3-C4-C5	-5.53	119.69	121.90
6	B	87	U	C6-N1-C1'	-5.53	113.46	121.20
5	A	452	C	N3-C4-N4	5.53	121.87	118.00
5	A	1038	C	N3-C4-C5	-5.53	119.69	121.90
5	A	1270	C	N3-C4-C5	-5.53	119.69	121.90
5	A	1302	A	C5-C6-N6	-5.53	119.28	123.70
5	A	1424	A	C5-C6-N1	-5.53	114.94	117.70
5	A	1670	C	N3-C4-C5	-5.53	119.69	121.90
5	A	2205	A	C4-C5-C6	5.53	119.76	117.00
5	A	2639	C	N3-C4-N4	5.53	121.87	118.00
5	A	226	A	C5-C6-N1	-5.52	114.94	117.70
5	A	46	C	N3-C4-C5	-5.52	119.69	121.90
5	A	108	A	O4'-C1'-N9	5.52	112.62	108.20
5	A	546	G	N3-C2-N2	5.52	123.77	119.90
5	A	829	A	C5-C6-N6	-5.52	119.28	123.70
5	A	1161	A	C5-C6-N6	-5.52	119.28	123.70
5	A	1612	C	N3-C4-N4	5.52	121.86	118.00
5	A	1660	C	P-O3'-C3'	5.52	126.33	119.70
5	A	1962	G	O4'-C1'-N9	5.52	112.62	108.20
5	A	2511	A	O4'-C1'-N9	5.52	112.62	108.20
5	A	13	A	C4-C5-C6	5.52	119.76	117.00
5	A	1540	A	C5-C6-N1	-5.52	114.94	117.70
5	A	2875	A	O4'-C1'-N9	5.52	112.62	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	659	A	C5-C6-N6	-5.52	119.28	123.70
5	A	667	A	C5-C6-N6	-5.52	119.28	123.70
5	A	786	A	C5-C6-N1	-5.52	114.94	117.70
5	A	828	A	C5-C6-N6	-5.52	119.28	123.70
5	A	1364	C	N3-C4-C5	-5.52	119.69	121.90
5	A	1524	A	P-O3'-C3'	5.52	126.32	119.70
5	A	1724	A	C5-C6-N6	-5.52	119.28	123.70
5	A	1865	C	N3-C4-N4	5.52	121.86	118.00
5	A	2421	A	C5-C6-N6	-5.52	119.28	123.70
5	A	2705	C	N3-C4-N4	5.52	121.86	118.00
5	A	156	A	C5-C6-N1	-5.52	114.94	117.70
5	A	517	A	C5-C6-N6	-5.52	119.28	123.70
5	A	531	C	P-O5'-C5'	5.52	129.73	120.90
5	A	922	A	O4'-C1'-N9	5.52	112.61	108.20
5	A	1100	A	C5-C6-N1	-5.52	114.94	117.70
5	A	1567	U	C3'-C2'-C1'	5.52	105.91	101.50
5	A	2580	C	N3-C4-N4	5.52	121.86	118.00
5	A	140	A	C5-C6-N6	-5.52	119.29	123.70
5	A	746	A	C5-C6-N1	-5.52	114.94	117.70
5	A	1783	C	N3-C4-N4	5.52	121.86	118.00
5	A	2059	A	C4-C5-C6	5.51	119.76	117.00
6	B	18	A	C5-C6-N1	-5.51	114.94	117.70
5	A	272	C	N3-C4-N4	5.51	121.86	118.00
5	A	1761	G	O4'-C1'-N9	5.51	112.61	108.20
5	A	639	C	N3-C4-C5	-5.51	119.70	121.90
5	A	852	G	P-O3'-C3'	5.51	126.31	119.70
5	A	861	C	N3-C4-N4	5.51	121.86	118.00
5	A	1261	C	N3-C4-N4	5.51	121.86	118.00
5	A	2687	C	N3-C4-C5	-5.51	119.70	121.90
5	A	1527	C	N3-C4-N4	5.51	121.86	118.00
5	A	2556	C	N3-C4-C5	-5.51	119.70	121.90
5	A	911	G	N1-C2-N3	-5.51	120.59	123.90
5	A	1848	A	C5-C6-N1	-5.51	114.95	117.70
5	A	115	C	N3-C4-N4	5.51	121.86	118.00
5	A	573	C	N3-C4-C5	-5.51	119.70	121.90
5	A	1421	A	C5-C6-N1	-5.51	114.95	117.70
5	A	1426	A	C5-C6-N6	-5.51	119.29	123.70
5	A	2065	C	N3-C4-C5	-5.51	119.70	121.90
5	A	2304	C	N3-C4-C5	-5.51	119.70	121.90
5	A	2520	U	O4'-C1'-N1	5.51	112.61	108.20
5	A	2779	A	C5-C6-N1	-5.51	114.95	117.70
5	A	2810	A	C5-C6-N1	-5.51	114.95	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2818	C	N3-C4-C5	-5.51	119.70	121.90
5	A	656	A	C5-C6-N6	-5.50	119.30	123.70
5	A	1659	A	C5-C6-N6	-5.50	119.30	123.70
5	A	2769	A	O4'-C1'-N9	5.50	112.60	108.20
5	A	156	A	O4'-C1'-N9	5.50	112.60	108.20
5	A	200	A	C5-C6-N1	-5.50	114.95	117.70
5	A	882	A	C5-C6-N1	-5.50	114.95	117.70
5	A	1406	A	C4-C5-C6	5.50	119.75	117.00
5	A	1685	A	C5-C6-N6	-5.50	119.30	123.70
5	A	1766	C	N3-C4-N4	5.50	121.85	118.00
5	A	2361	C	N3-C4-N4	5.50	121.85	118.00
5	A	404	C	P-O5'-C5'	5.50	129.70	120.90
5	A	689	A	O4'-C1'-N9	5.50	112.60	108.20
5	A	957	A	C5-C6-N6	-5.50	119.30	123.70
5	A	964	A	C5-C6-N6	-5.50	119.30	123.70
5	A	2455	A	C5-C6-N6	-5.50	119.30	123.70
5	A	2570	A	O3'-P-O5'	-5.50	93.55	104.00
5	A	2658	A	C5-C6-N1	-5.50	114.95	117.70
5	A	2859	G	N3-C2-N2	5.50	123.75	119.90
5	A	835	A	C5-C6-N1	-5.50	114.95	117.70
5	A	836	A	O4'-C1'-N9	5.50	112.60	108.20
5	A	1220	G	P-O5'-C5'	5.50	129.70	120.90
5	A	1458	U	O4'-C1'-N1	5.50	112.60	108.20
5	A	1645	C	N3-C4-N4	5.50	121.85	118.00
5	A	1723	A	P-O5'-C5'	5.50	129.70	120.90
5	A	2471	C	N3-C4-C5	-5.50	119.70	121.90
5	A	2505	A	C5-C6-N6	-5.50	119.30	123.70
5	A	115	C	N3-C4-C5	-5.50	119.70	121.90
5	A	182	C	N3-C4-C5	-5.50	119.70	121.90
5	A	575	A	C5-C6-N1	-5.50	114.95	117.70
5	A	1202	A	C5-C6-N6	-5.50	119.30	123.70
5	A	1995	A	C5-C6-N1	-5.50	114.95	117.70
5	A	2229	C	N3-C4-N4	5.50	121.85	118.00
5	A	2307	A	C5-C6-N1	-5.50	114.95	117.70
5	A	2313	C	N3-C4-C5	-5.50	119.70	121.90
18	Q	24	TYR	CB-CG-CD2	-5.50	117.70	121.00
5	A	72	U	O4'-C1'-N1	5.50	112.60	108.20
5	A	162	A	C5-C6-N1	-5.50	114.95	117.70
5	A	337	A	C4-C5-C6	5.50	119.75	117.00
5	A	483	C	N3-C4-C5	-5.50	119.70	121.90
5	A	1003	A	C5-C6-N6	-5.50	119.30	123.70
5	A	1110	C	N3-C4-C5	-5.50	119.70	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1173	A	C5-C6-N6	-5.50	119.30	123.70
5	A	1314	A	C5-C6-N1	-5.50	114.95	117.70
5	A	1772	C	N3-C4-N4	5.50	121.85	118.00
5	A	1802	A	C5-C6-N6	-5.50	119.30	123.70
5	A	1973	U	O4'-C1'-N1	5.50	112.60	108.20
5	A	1982	A	C5-C6-N1	-5.50	114.95	117.70
5	A	1994	C	O4'-C1'-N1	5.50	112.60	108.20
5	A	2839	C	N3-C4-N4	5.50	121.85	118.00
5	A	1696	G	O3'-P-O5'	5.50	114.44	104.00
5	A	2536	C	N3-C4-C5	-5.50	119.70	121.90
6	B	116	C	N3-C4-N4	5.50	121.85	118.00
5	A	279	A	O4'-C1'-N9	5.49	112.59	108.20
5	A	331	C	N3-C4-C5	-5.49	119.70	121.90
5	A	713	G	O4'-C1'-N9	5.49	112.59	108.20
5	A	1166	G	N3-C2-N2	5.49	123.75	119.90
5	A	1989	A	C4-C5-C6	5.49	119.75	117.00
5	A	2178	C	N3-C4-N4	5.49	121.84	118.00
5	A	2662	A	C4-C5-C6	5.49	119.75	117.00
5	A	2875	A	C5-C6-N1	-5.49	114.95	117.70
6	B	37	A	O4'-C1'-N9	5.49	112.59	108.20
5	A	1125	C	N3-C4-C5	-5.49	119.70	121.90
5	A	2221	C	N3-C4-N4	5.49	121.84	118.00
5	A	64	A	C5-C6-N6	-5.49	119.31	123.70
5	A	333	A	C5-C6-N1	-5.49	114.95	117.70
5	A	783	C	P-O5'-C5'	5.49	129.68	120.90
5	A	1010	C	N3-C4-N4	5.49	121.84	118.00
5	A	1127	U	O4'-C1'-N1	5.49	112.59	108.20
5	A	1428	G	O4'-C1'-N9	5.49	112.59	108.20
5	A	2008	C	N3-C4-N4	5.49	121.84	118.00
5	A	2667	G	O4'-C1'-N9	5.49	112.59	108.20
5	A	2823	C	N3-C4-C5	-5.49	119.70	121.90
5	A	503	C	N3-C4-N4	5.49	121.84	118.00
5	A	2117	A	C5-C6-N6	-5.49	119.31	123.70
5	A	2384	C	N3-C4-N4	5.49	121.84	118.00
5	A	2661	A	C5-C6-N1	-5.49	114.96	117.70
5	A	1525	G	O4'-C1'-N9	5.49	112.59	108.20
5	A	1559	C	N3-C4-N4	5.49	121.84	118.00
5	A	1742	G	N3-C2-N2	5.49	123.74	119.90
5	A	2102	C	N3-C4-N4	5.49	121.84	118.00
5	A	2787	A	O4'-C1'-N9	5.49	112.59	108.20
5	A	73	A	C5-C6-N1	-5.49	114.96	117.70
5	A	197	G	O4'-C1'-N9	5.49	112.59	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1014	A	C5-C6-N6	-5.49	119.31	123.70
5	A	1083	G	P-O3'-C3'	-5.49	113.12	119.70
5	A	1293	A	C5-C6-N1	-5.49	114.96	117.70
5	A	1372	C	N3-C4-C5	-5.49	119.70	121.90
5	A	1464	A	C5-C6-N1	-5.49	114.96	117.70
5	A	1564	C	N3-C4-N4	5.49	121.84	118.00
5	A	1614	A	C5-C6-N1	-5.49	114.96	117.70
5	A	1865	C	N3-C4-C5	-5.49	119.71	121.90
5	A	1876	A	C5-C6-N1	-5.49	114.96	117.70
5	A	1982	A	O4'-C1'-N9	5.49	112.59	108.20
5	A	2114	C	N3-C4-C5	-5.49	119.70	121.90
5	A	2637	G	O4'-C1'-N9	5.49	112.59	108.20
5	A	2770	A	C4-C5-C6	5.49	119.74	117.00
21	T	85	ALA	N-CA-CB	5.49	117.78	110.10
5	A	230	A	C4-C5-C6	5.48	119.74	117.00
5	A	275	A	C5-C6-N1	-5.48	114.96	117.70
5	A	1506	A	C5-C6-N6	-5.48	119.31	123.70
5	A	2078	A	C5-C6-N1	-5.48	114.96	117.70
5	A	2403	C	N3-C4-C5	-5.48	119.71	121.90
6	B	119	G	O4'-C1'-N9	5.48	112.59	108.20
5	A	981	C	N3-C4-N4	5.48	121.84	118.00
5	A	1103	A	C5-C6-N1	-5.48	114.96	117.70
5	A	1174	A	C5-C6-N1	-5.48	114.96	117.70
5	A	1258	A	C5-C6-N1	-5.48	114.96	117.70
5	A	1586	G	C5-C6-O6	-5.48	125.31	128.60
5	A	1945	A	C4-C5-C6	5.48	119.74	117.00
5	A	2253	G	P-O3'-C3'	5.48	126.28	119.70
5	A	2425	G	O4'-C1'-N9	5.48	112.58	108.20
5	A	2778	A	C8-N9-C4	-5.48	103.61	105.80
6	B	114	A	O4'-C1'-N9	5.48	112.59	108.20
5	A	1434	A	C5-C6-N6	-5.48	119.32	123.70
5	A	1631	A	C5-C6-N1	-5.48	114.96	117.70
5	A	1816	A	C5-C6-N6	-5.48	119.32	123.70
5	A	2247	C	N3-C4-C5	-5.48	119.71	121.90
5	A	2279	G	O4'-C1'-N9	5.48	112.58	108.20
5	A	2026	A	C5-C6-N6	-5.48	119.32	123.70
5	A	2615	C	N3-C4-N4	5.48	121.83	118.00
6	B	64	A	C5-C6-N1	-5.48	114.96	117.70
5	A	379	C	N3-C4-C5	-5.48	119.71	121.90
5	A	430	C	N3-C4-C5	-5.48	119.71	121.90
5	A	678	A	C5-C6-N6	-5.48	119.32	123.70
5	A	797	A	C5-C6-N6	-5.48	119.32	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1495	C	N3-C4-N4	5.48	121.83	118.00
5	A	1727	A	O4'-C1'-N9	5.48	112.58	108.20
5	A	2783	U	O4'-C1'-N1	5.48	112.58	108.20
6	B	113	A	C4-C5-C6	5.48	119.74	117.00
5	A	469	A	C5-C6-N1	-5.48	114.96	117.70
5	A	1261	C	N3-C4-C5	-5.48	119.71	121.90
5	A	1294	A	C4-C5-C6	5.48	119.74	117.00
5	A	1930	A	C5-C6-N6	-5.48	119.32	123.70
5	A	1997	G	O4'-C1'-N9	5.48	112.58	108.20
5	A	2005	C	N3-C4-N4	5.48	121.83	118.00
5	A	2257	G	O4'-C1'-N9	5.48	112.58	108.20
5	A	2703	G	O4'-C1'-N9	5.48	112.58	108.20
5	A	449	A	C5-C6-N1	-5.47	114.96	117.70
5	A	626	G	O4'-C1'-N9	5.47	112.58	108.20
5	A	1053	C	N3-C4-C5	-5.47	119.71	121.90
5	A	1150	C	N3-C4-C5	-5.47	119.71	121.90
5	A	1473	A	P-O3'-C3'	5.47	126.27	119.70
5	A	1553	A	C5-C6-N1	-5.47	114.96	117.70
5	A	1583	A	C5-C6-N1	-5.47	114.96	117.70
5	A	2241	A	C5-C6-N1	-5.47	114.96	117.70
5	A	68	C	N3-C4-N4	5.47	121.83	118.00
5	A	1281	C	N3-C4-N4	5.47	121.83	118.00
5	A	1432	A	C5-C6-N6	-5.47	119.32	123.70
5	A	1524	A	C5-C6-N6	-5.47	119.32	123.70
5	A	2889	A	C4-C5-C6	5.47	119.74	117.00
5	A	1369	C	N3-C4-N4	5.47	121.83	118.00
5	A	249	C	N3-C4-C5	-5.47	119.71	121.90
5	A	678	A	C5-C6-N1	-5.47	114.97	117.70
5	A	1340	A	C4-C5-C6	5.47	119.73	117.00
5	A	1524	A	C5-C6-N1	-5.47	114.97	117.70
5	A	1616	G	O4'-C1'-N9	5.47	112.58	108.20
5	A	1715	C	N3-C4-C5	-5.47	119.71	121.90
5	A	2113	C	N3-C4-C5	-5.47	119.71	121.90
6	B	39	A	C5-C6-N1	-5.47	114.97	117.70
6	B	91	C	N3-C4-C5	-5.47	119.71	121.90
5	A	244	A	C5-C6-N6	-5.47	119.33	123.70
5	A	388	A	C5-C6-N6	-5.47	119.33	123.70
5	A	1690	G	O4'-C1'-N9	5.47	112.58	108.20
5	A	2662	A	C5-C6-N6	-5.47	119.33	123.70
5	A	239	C	N3-C4-N4	5.47	121.83	118.00
5	A	676	G	O4'-C1'-N9	5.47	112.57	108.20
5	A	1073	A	C5-C6-N6	-5.47	119.33	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1388	A	C5-C6-N6	-5.47	119.33	123.70
5	A	2134	A	C4-C5-C6	5.47	119.73	117.00
5	A	2314	C	N3-C4-N4	5.47	121.83	118.00
5	A	777	C	N3-C4-N4	5.46	121.83	118.00
5	A	851	A	C5-C6-N1	-5.46	114.97	117.70
5	A	2141	A	C5-C6-N1	-5.46	114.97	117.70
5	A	2788	G	O4'-C1'-N9	5.46	112.57	108.20
6	B	11	A	C5-C6-N1	-5.46	114.97	117.70
6	B	26	C	N3-C4-C5	-5.46	119.71	121.90
6	B	50	A	C5-C6-N6	-5.46	119.33	123.70
5	A	432	C	C5'-C4'-C3'	-5.46	107.26	116.00
5	A	428	A	C5-C6-N1	-5.46	114.97	117.70
5	A	636	G	O4'-C1'-N9	5.46	112.57	108.20
5	A	1551	C	P-O3'-C3'	5.46	126.25	119.70
5	A	1659	A	C5-C6-N1	-5.46	114.97	117.70
5	A	1745	A	C5-C6-N1	-5.46	114.97	117.70
5	A	2066	A	C5-C6-N6	-5.46	119.33	123.70
5	A	517	A	C5-C6-N1	-5.46	114.97	117.70
5	A	144	A	C5-C6-N1	-5.46	114.97	117.70
5	A	427	G	O4'-C1'-N9	5.46	112.57	108.20
5	A	461	C	C5-C4-N4	-5.46	116.38	120.20
5	A	1291	A	C4-C5-C6	5.46	119.73	117.00
5	A	1337	C	N3-C4-C5	-5.46	119.72	121.90
5	A	1538	G	N3-C2-N2	5.46	123.72	119.90
5	A	697	G	C5'-C4'-O4'	5.46	115.65	109.10
5	A	963	G	N3-C2-N2	5.46	123.72	119.90
5	A	1125	C	O4'-C1'-N1	5.46	112.56	108.20
5	A	1216	C	N3-C4-N4	5.46	121.82	118.00
5	A	1375	A	C5-C6-N6	-5.46	119.33	123.70
5	A	1393	A	C5-C6-N6	-5.46	119.33	123.70
5	A	1443	C	O4'-C1'-N1	5.46	112.56	108.20
5	A	1797	A	C5-C6-N6	-5.46	119.33	123.70
5	A	2089	A	C5-C6-N1	-5.46	114.97	117.70
5	A	2117	A	C5-C6-N1	-5.46	114.97	117.70
5	A	2363	C	N3-C4-N4	5.46	121.82	118.00
5	A	18	C	N3-C4-C5	-5.46	119.72	121.90
5	A	2423	C	N3-C4-N4	5.46	121.82	118.00
5	A	757	C	N3-C4-C5	-5.45	119.72	121.90
5	A	841	A	C5-C6-N1	-5.45	114.97	117.70
5	A	2098	G	O4'-C1'-N9	5.45	112.56	108.20
5	A	2227	A	C5-C6-N6	-5.45	119.34	123.70
5	A	91	A	C5-C6-N1	-5.45	114.97	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	588	C	N3-C4-N4	5.45	121.82	118.00
5	A	883	G	O4'-C1'-N9	5.45	112.56	108.20
5	A	1149	A	C5-C6-N6	-5.45	119.34	123.70
5	A	1275	G	O4'-C1'-N9	5.45	112.56	108.20
5	A	1652	C	N3-C4-N4	5.45	121.82	118.00
5	A	2028	C	N3-C4-C5	-5.45	119.72	121.90
5	A	274	A	C5-C6-N1	-5.45	114.97	117.70
5	A	277	C	N3-C4-N4	5.45	121.82	118.00
5	A	380	C	N3-C4-C5	-5.45	119.72	121.90
5	A	530	A	C5-C6-N6	-5.45	119.34	123.70
5	A	670	C	O4'-C1'-N1	5.45	112.56	108.20
5	A	889	A	C5-C6-N6	-5.45	119.34	123.70
5	A	990	C	N3-C4-N4	5.45	121.81	118.00
5	A	1189	A	C5-C6-N1	-5.45	114.97	117.70
5	A	492	C	N3-C4-C5	-5.45	119.72	121.90
5	A	2601	A	C5-C6-N6	-5.45	119.34	123.70
5	A	2742	C	P-O3'-C3'	5.45	126.24	119.70
5	A	2827	A	C5-C6-N6	-5.45	119.34	123.70
5	A	274	A	C5-C6-N6	-5.45	119.34	123.70
5	A	315	C	N3-C4-N4	5.45	121.81	118.00
5	A	1207	C	N3-C4-C5	-5.45	119.72	121.90
5	A	1791	A	C5-C6-N1	-5.45	114.98	117.70
5	A	2618	A	C5-C6-N6	-5.45	119.34	123.70
5	A	2853	C	C2-N3-C4	5.45	122.62	119.90
5	A	144	A	O4'-C1'-N9	5.45	112.56	108.20
5	A	573	C	N3-C4-N4	5.45	121.81	118.00
5	A	679	A	C5-C6-N1	-5.45	114.98	117.70
5	A	911	G	C5-C6-O6	-5.45	125.33	128.60
5	A	933	C	N3-C4-C5	-5.45	119.72	121.90
5	A	1421	A	C5-C6-N6	-5.45	119.34	123.70
5	A	1432	A	C4-C5-C6	5.45	119.72	117.00
5	A	1736	C	C2-N3-C4	5.45	122.62	119.90
5	A	431	A	C5-C6-N1	-5.44	114.98	117.70
5	A	459	A	C5-C6-N1	-5.44	114.98	117.70
5	A	1194	A	C5-C6-N6	-5.44	119.34	123.70
5	A	2843	G	O4'-C1'-N9	5.44	112.56	108.20
5	A	586	C	N3-C4-C5	-5.44	119.72	121.90
5	A	1515	C	N3-C4-C5	-5.44	119.72	121.90
5	A	2207	C	N3-C4-C5	-5.44	119.72	121.90
5	A	2482	A	C4-C5-C6	5.44	119.72	117.00
5	A	2661	A	O4'-C1'-N9	5.44	112.55	108.20
5	A	2908	A	P-O5'-C5'	5.44	129.61	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	289	C	N3-C4-N4	5.44	121.81	118.00
5	A	500	A	C5-C6-N1	-5.44	114.98	117.70
5	A	532	C	N3-C4-N4	5.44	121.81	118.00
5	A	937	C	N3-C4-C5	-5.44	119.72	121.90
5	A	1730	C	N3-C4-N4	5.44	121.81	118.00
5	A	2292	C	N3-C4-N4	5.44	121.81	118.00
5	A	2324	C	N3-C4-C5	-5.44	119.72	121.90
5	A	2472	C	N3-C4-N4	5.44	121.81	118.00
5	A	2477	A	C5-C6-N6	-5.44	119.35	123.70
5	A	2629	A	C5-C6-N6	-5.44	119.35	123.70
5	A	2876	A	C4-C5-C6	5.44	119.72	117.00
5	A	756	U	O4'-C1'-N1	5.44	112.55	108.20
5	A	786	A	C5-C6-N6	-5.44	119.35	123.70
5	A	1144	A	C5-C6-N6	-5.44	119.35	123.70
5	A	2819	A	C5-C6-N6	-5.44	119.35	123.70
5	A	628	C	P-O5'-C5'	5.44	129.60	120.90
5	A	792	G	O4'-C1'-N9	5.44	112.55	108.20
5	A	1293	A	O4'-C1'-N9	5.44	112.55	108.20
5	A	1305	A	C5-C6-N1	-5.44	114.98	117.70
5	A	1651	G	O4'-C1'-N9	5.44	112.55	108.20
5	A	1663	A	C5-C6-N1	-5.44	114.98	117.70
5	A	1691	A	C5-C6-N6	-5.44	119.35	123.70
5	A	1966	A	C5-C6-N6	-5.44	119.35	123.70
5	A	2150	G	O4'-C1'-N9	5.44	112.55	108.20
5	A	369	A	C5-C6-N6	-5.44	119.35	123.70
5	A	762	A	C5-C6-N1	-5.44	114.98	117.70
5	A	1424	A	C5-C6-N6	-5.44	119.35	123.70
5	A	1477	A	O4'-C1'-N9	5.44	112.55	108.20
5	A	2502	U	C2-N1-C1'	5.44	124.22	117.70
6	B	25	A	C5-C6-N1	-5.44	114.98	117.70
5	A	224	A	O4'-C1'-N9	5.43	112.55	108.20
5	A	693	G	N3-C2-N2	5.43	123.70	119.90
5	A	766	C	P-O5'-C5'	5.43	129.60	120.90
5	A	866	A	C5-C6-N6	-5.43	119.35	123.70
5	A	2615	C	N3-C4-C5	-5.43	119.73	121.90
5	A	349	C	O4'-C1'-N1	5.43	112.55	108.20
5	A	808	A	C5-C6-N6	-5.43	119.35	123.70
5	A	1002	G	O4'-C1'-N9	5.43	112.55	108.20
5	A	1446	C	N3-C4-N4	5.43	121.80	118.00
5	A	1450	C	N3-C4-C5	-5.43	119.73	121.90
5	A	1645	C	P-O5'-C5'	5.43	129.59	120.90
5	A	1652	C	C2-N1-C1'	5.43	124.78	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1857	G	C5-C6-O6	-5.43	125.34	128.60
5	A	2848	A	C5-C6-N6	-5.43	119.35	123.70
5	A	2537	G	O4'-C1'-N9	5.43	112.54	108.20
5	A	2580	C	N3-C4-C5	-5.43	119.73	121.90
5	A	139	A	C5-C6-N6	-5.43	119.36	123.70
5	A	238	U	P-O5'-C5'	5.43	129.59	120.90
5	A	752	A	C5-C6-N1	-5.43	114.98	117.70
5	A	790	A	C5-C6-N6	-5.43	119.36	123.70
5	A	2546	C	P-O5'-C5'	5.43	129.59	120.90
5	A	2863	G	O4'-C1'-N9	5.43	112.54	108.20
18	Q	24	TYR	CB-CG-CD1	5.43	124.26	121.00
5	A	659	A	C5-C6-N1	-5.43	114.99	117.70
5	A	2152	A	C5-C6-N6	-5.43	119.36	123.70
5	A	2616	A	C4-C5-C6	5.43	119.71	117.00
6	B	118	A	C5-C6-N6	-5.43	119.36	123.70
5	A	258	A	C5-C6-N1	-5.43	114.99	117.70
5	A	553	A	C5-C6-N1	-5.43	114.99	117.70
5	A	602	G	O4'-C1'-N9	5.43	112.54	108.20
5	A	1607	C	C2-N1-C1'	5.43	124.77	118.80
5	A	1612	C	N3-C4-C5	-5.43	119.73	121.90
5	A	2532	A	O4'-C1'-N9	5.43	112.54	108.20
5	A	2918	G	O4'-C1'-C2'	-5.43	100.37	105.80
5	A	1506	A	O4'-C1'-N9	5.42	112.54	108.20
5	A	1720	C	N3-C4-N4	5.42	121.80	118.00
5	A	2579	G	O4'-C1'-N9	5.42	112.54	108.20
5	A	2878	U	O4'-C1'-N1	5.42	112.54	108.20
5	A	499	G	O4'-C1'-N9	5.42	112.54	108.20
5	A	1794	C	N3-C4-C5	-5.42	119.73	121.90
5	A	416	U	O4'-C1'-N1	5.42	112.54	108.20
5	A	1029	A	C5-C6-N6	-5.42	119.36	123.70
5	A	1046	A	C5-C6-N6	-5.42	119.36	123.70
5	A	1122	C	N3-C4-C5	-5.42	119.73	121.90
5	A	2005	C	N3-C4-C5	-5.42	119.73	121.90
5	A	2261	C	N3-C4-N4	5.42	121.80	118.00
5	A	2314	C	N3-C4-C5	-5.42	119.73	121.90
5	A	2822	C	N3-C4-C5	-5.42	119.73	121.90
5	A	2908	A	C4-C5-C6	5.42	119.71	117.00
5	A	739	C	N3-C4-C5	-5.42	119.73	121.90
5	A	1465	A	C5-C6-N1	-5.42	114.99	117.70
5	A	1520	A	O4'-C1'-N9	5.42	112.54	108.20
5	A	2848	A	C5-C6-N1	-5.42	114.99	117.70
5	A	712	C	N3-C4-C5	-5.42	119.73	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	980	C	N3-C4-N4	5.42	121.79	118.00
5	A	989	U	O4'-C1'-N1	5.42	112.53	108.20
5	A	1167	C	N3-C4-C5	-5.42	119.73	121.90
5	A	1453	A	C5-C6-N6	-5.42	119.36	123.70
5	A	1629	C	N3-C4-C5	-5.42	119.73	121.90
5	A	1934	C	N3-C4-N4	5.42	121.79	118.00
5	A	1990	C	N3-C4-C5	-5.42	119.73	121.90
5	A	2080	A	C5-C6-N1	-5.42	114.99	117.70
5	A	2246	G	O4'-C1'-N9	5.42	112.53	108.20
5	A	2700	A	C5-C6-N6	-5.42	119.37	123.70
5	A	71	A	C4-C5-C6	5.42	119.71	117.00
5	A	1266	A	C5-C6-N1	-5.42	114.99	117.70
5	A	1487	G	O4'-C1'-N9	5.42	112.53	108.20
5	A	2295	A	C5-C6-N1	-5.42	114.99	117.70
5	A	2386	U	C1'-O4'-C4'	-5.42	105.57	109.90
5	A	2568	C	N3-C4-C5	-5.42	119.73	121.90
5	A	2619	A	C5-C6-N1	-5.42	114.99	117.70
5	A	971	A	C5-C6-N1	-5.42	114.99	117.70
5	A	61	A	C4-C5-C6	5.41	119.71	117.00
5	A	518	A	P-O3'-C3'	5.41	126.20	119.70
5	A	806	G	O4'-C1'-N9	5.41	112.53	108.20
5	A	915	U	O4'-C1'-N1	5.41	112.53	108.20
5	A	1123	A	C5-C6-N6	-5.41	119.37	123.70
5	A	1191	C	N3-C4-C5	-5.41	119.73	121.90
5	A	1328	C	N3-C4-C5	-5.41	119.73	121.90
5	A	1503	G	C6-C5-N7	-5.41	127.15	130.40
5	A	1811	C	N3-C4-N4	5.41	121.79	118.00
5	A	2358	A	C5-C6-N1	-5.41	114.99	117.70
5	A	2159	U	C2-N1-C1'	5.41	124.19	117.70
5	A	1433	U	O4'-C1'-N1	5.41	112.53	108.20
5	A	2148	A	C5-C6-N1	-5.41	115.00	117.70
5	A	2463	A	C4-C5-C6	5.41	119.70	117.00
5	A	2689	A	O4'-C1'-N9	5.41	112.53	108.20
5	A	2696	C	N3-C4-C5	-5.41	119.74	121.90
5	A	38	A	C5-C6-N6	-5.41	119.37	123.70
5	A	259	A	C5-C6-N6	-5.41	119.37	123.70
5	A	324	A	C5-C6-N1	-5.41	115.00	117.70
5	A	803	C	N3-C4-C5	-5.41	119.74	121.90
5	A	1255	G	O4'-C1'-N9	5.41	112.53	108.20
5	A	2438	G	O4'-C1'-N9	5.41	112.53	108.20
5	A	2779	A	C5-C6-N6	-5.41	119.37	123.70
5	A	955	C	N3-C4-C5	-5.41	119.74	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1789	A	C5-C6-N6	-5.41	119.37	123.70
5	A	2283	C	N3-C4-C5	-5.41	119.74	121.90
5	A	2816	C	N3-C4-C5	-5.41	119.74	121.90
5	A	130	A	C5-C6-N1	-5.41	115.00	117.70
5	A	2464	A	C5-C6-N6	-5.41	119.38	123.70
5	A	2493	C	N3-C4-C5	-5.41	119.74	121.90
5	A	2526	A	C4-C5-C6	5.41	119.70	117.00
6	B	24	C	N3-C4-C5	-5.41	119.74	121.90
6	B	28	C	N3-C4-C5	-5.41	119.74	121.90
6	B	63	C	N3-C4-N4	5.41	121.78	118.00
5	A	221	G	C8-N9-C4	-5.40	104.24	106.40
5	A	622	A	O4'-C1'-N9	5.40	112.52	108.20
5	A	933	C	N3-C4-N4	5.40	121.78	118.00
5	A	958	A	C5-C6-N1	-5.40	115.00	117.70
5	A	1011	C	N3-C4-C5	-5.40	119.74	121.90
5	A	73	A	C5-C6-N6	-5.40	119.38	123.70
5	A	83	G	C3'-C2'-C1'	-5.40	97.18	101.50
5	A	310	C	N3-C4-N4	5.40	121.78	118.00
5	A	561	A	C4-C5-C6	5.40	119.70	117.00
5	A	698	C	N3-C4-C5	-5.40	119.74	121.90
5	A	968	C	N3-C4-N4	5.40	121.78	118.00
5	A	1112	U	C2-N1-C1'	5.40	124.18	117.70
5	A	1929	A	C5-C6-N1	-5.40	115.00	117.70
5	A	117	A	C5-C6-N6	-5.40	119.38	123.70
5	A	2874	G	O4'-C1'-N9	5.40	112.52	108.20
5	A	527	A	C5-C6-N6	-5.40	119.38	123.70
5	A	561	A	C5-C6-N1	-5.40	115.00	117.70
5	A	628	C	N3-C4-C5	-5.40	119.74	121.90
5	A	833	C	N3-C4-C5	-5.40	119.74	121.90
5	A	1473	A	C5-C6-N6	-5.40	119.38	123.70
5	A	1520	A	C5-C6-N1	-5.40	115.00	117.70
5	A	1717	C	N3-C4-C5	-5.40	119.74	121.90
5	A	1963	C	N3-C4-C5	-5.40	119.74	121.90
5	A	842	C	N3-C4-C5	-5.40	119.74	121.90
5	A	1055	A	C5-C6-N6	-5.40	119.38	123.70
5	A	407	A	C5-C6-N6	-5.39	119.38	123.70
5	A	1005	A	C5-C6-N1	-5.39	115.00	117.70
5	A	1284	A	C5-C6-N6	-5.39	119.38	123.70
5	A	1404	A	C5-C6-N1	-5.39	115.00	117.70
5	A	1613	C	N3-C4-N4	5.39	121.78	118.00
5	A	1781	C	N3-C4-C5	-5.39	119.74	121.90
5	A	2548	U	O4'-C1'-N1	5.39	112.52	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	532	C	N3-C4-C5	-5.39	119.74	121.90
5	A	2499	G	P-O3'-C3'	5.39	126.17	119.70
5	A	1643	C	C2-N3-C4	5.39	122.60	119.90
5	A	723	A	C5-C6-N6	-5.39	119.39	123.70
5	A	1097	A	C5-C6-N6	-5.39	119.39	123.70
5	A	1831	A	O4'-C1'-N9	5.39	112.51	108.20
5	A	2456	C	N3-C4-N4	5.39	121.77	118.00
5	A	2782	A	O4'-C1'-N9	5.39	112.51	108.20
5	A	2817	C	N3-C4-C5	-5.39	119.74	121.90
17	P	16	ASP	N-CA-CB	5.39	120.30	110.60
5	A	533	C	N3-C4-C5	-5.39	119.75	121.90
5	A	904	A	C5-C6-N6	-5.39	119.39	123.70
5	A	1996	C	N3-C4-N4	5.39	121.77	118.00
5	A	239	C	N3-C4-C5	-5.39	119.75	121.90
5	A	1573	C	N3-C4-N4	5.39	121.77	118.00
5	A	1776	A	O4'-C1'-N9	5.39	112.51	108.20
5	A	2823	C	N3-C4-N4	5.39	121.77	118.00
6	B	102	A	C5-C6-N6	-5.39	119.39	123.70
5	A	240	C	N3-C4-C5	-5.38	119.75	121.90
5	A	296	G	O4'-C1'-N9	5.38	112.51	108.20
5	A	399	C	C6-N1-C2	-5.38	118.15	120.30
5	A	923	C	N3-C4-N4	5.38	121.77	118.00
5	A	1445	A	C5-C6-N1	-5.38	115.01	117.70
5	A	2085	G	O4'-C1'-N9	5.38	112.51	108.20
5	A	2363	C	N3-C4-C5	-5.38	119.75	121.90
5	A	2432	C	N3-C4-N4	5.38	121.77	118.00
5	A	2564	A	C5-C6-N1	-5.38	115.01	117.70
5	A	2640	C	N3-C4-C5	-5.38	119.75	121.90
5	A	2754	A	C5-C6-N1	-5.38	115.01	117.70
5	A	2837	A	C4-C5-C6	5.38	119.69	117.00
5	A	2925	C	N3-C4-C5	-5.38	119.75	121.90
6	B	111	C	N3-C4-N4	5.38	121.77	118.00
18	Q	45	TYR	CB-CG-CD1	-5.38	117.77	121.00
5	A	616	A	C5-C6-N6	-5.38	119.39	123.70
5	A	1539	C	N3-C4-C5	-5.38	119.75	121.90
5	A	1585	A	O4'-C1'-N9	5.38	112.51	108.20
5	A	2674	G	O4'-C1'-N9	5.38	112.51	108.20
5	A	535	G	P-O3'-C3'	5.38	126.16	119.70
5	A	882	A	C5-C6-N6	-5.38	119.39	123.70
5	A	1141	A	C5-C6-N1	-5.38	115.01	117.70
5	A	1818	A	C5-C6-N1	-5.38	115.01	117.70
5	A	2190	C	N3-C4-C5	-5.38	119.75	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2310	C	N3-C4-C5	-5.38	119.75	121.90
5	A	2329	A	C5-C6-N6	-5.38	119.39	123.70
5	A	2388	C	C5-C6-N1	5.38	123.69	121.00
5	A	2388	C	N3-C4-C5	-5.38	119.75	121.90
5	A	2436	A	C5-C6-N1	-5.38	115.01	117.70
5	A	2445	C	O4'-C1'-N1	5.38	112.50	108.20
5	A	2675	C	C6-N1-C2	-5.38	118.15	120.30
5	A	943	A	C5-C6-N6	-5.38	119.40	123.70
5	A	945	C	C1'-O4'-C4'	5.38	114.20	109.90
5	A	1767	A	C5-C6-N1	-5.38	115.01	117.70
5	A	2010	A	C5-C6-N1	-5.38	115.01	117.70
5	A	2251	G	O4'-C1'-N9	5.38	112.50	108.20
6	B	111	C	N3-C4-C5	-5.38	119.75	121.90
5	A	643	U	C5'-C4'-C3'	-5.38	107.40	116.00
5	A	699	A	C5-C6-N6	-5.38	119.40	123.70
5	A	769	A	O4'-C1'-N9	5.38	112.50	108.20
5	A	1340	A	C5-C6-N1	-5.38	115.01	117.70
5	A	2034	A	C4-C5-C6	5.38	119.69	117.00
5	A	2698	G	O4'-C1'-N9	5.38	112.50	108.20
5	A	407	A	C5-C6-N1	-5.38	115.01	117.70
5	A	843	C	N3-C4-N4	5.38	121.76	118.00
5	A	974	A	O4'-C1'-N9	5.38	112.50	108.20
5	A	1537	G	O4'-C1'-N9	5.38	112.50	108.20
5	A	2018	A	C5-C6-N6	-5.38	119.40	123.70
5	A	2560	A	C5-C6-N1	-5.38	115.01	117.70
5	A	1539	C	N3-C4-N4	5.38	121.76	118.00
5	A	2042	A	C5-C6-N1	-5.38	115.01	117.70
5	A	2498	A	C5-C6-N1	-5.38	115.01	117.70
5	A	461	C	N3-C4-C5	-5.37	119.75	121.90
5	A	944	C	N3-C4-C5	-5.37	119.75	121.90
5	A	1116	A	C4-C5-C6	5.37	119.69	117.00
5	A	2134	A	C5-C6-N1	-5.37	115.01	117.70
5	A	2327	A	O4'-C1'-N9	5.37	112.50	108.20
5	A	2423	C	N3-C4-C5	-5.37	119.75	121.90
5	A	2631	A	C5-C6-N6	-5.37	119.40	123.70
5	A	161	A	O4'-C1'-N9	5.37	112.50	108.20
5	A	1115	A	C5-C6-N6	-5.37	119.40	123.70
5	A	1447	C	N3-C4-N4	5.37	121.76	118.00
5	A	1574	G	C5-C6-O6	-5.37	125.38	128.60
5	A	1780	C	N3-C4-C5	-5.37	119.75	121.90
5	A	2148	A	O4'-C1'-N9	5.37	112.50	108.20
5	A	2595	A	C5-C6-N6	-5.37	119.40	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1953	C	N3-C4-N4	5.37	121.76	118.00
5	A	2119	A	C5-C6-N1	-5.37	115.02	117.70
5	A	2433	C	P-O3'-C3'	5.37	126.14	119.70
5	A	129	C	N3-C4-C5	-5.37	119.75	121.90
5	A	141	U	C6-N1-C1'	-5.37	113.68	121.20
5	A	384	A	C5-C6-N1	-5.37	115.02	117.70
5	A	1339	A	C4-C5-C6	5.37	119.68	117.00
5	A	1033	C	N3-C4-C5	-5.37	119.75	121.90
5	A	1113	A	C5-C6-N1	-5.37	115.02	117.70
5	A	1987	C	N3-C4-C5	-5.37	119.75	121.90
5	A	2087	A	C5-C6-N6	-5.37	119.41	123.70
5	A	2176	A	C5-C6-N6	-5.37	119.41	123.70
5	A	2449	C	N3-C4-C5	-5.37	119.75	121.90
5	A	663	G	O4'-C1'-N9	5.37	112.49	108.20
5	A	1797	A	C5-C6-N1	-5.37	115.02	117.70
5	A	2673	A	O4'-C1'-N9	5.37	112.49	108.20
6	B	4	G	O4'-C1'-N9	5.37	112.49	108.20
5	A	355	A	C5-C6-N1	-5.36	115.02	117.70
5	A	672	C	N3-C4-C5	-5.36	119.75	121.90
5	A	1492	G	P-O5'-C5'	5.36	129.48	120.90
5	A	1556	A	C5-C6-N1	-5.36	115.02	117.70
5	A	1938	C	N3-C4-C5	-5.36	119.75	121.90
5	A	208	G	P-O3'-C3'	5.36	126.13	119.70
5	A	847	A	C5-C6-N6	-5.36	119.41	123.70
5	A	2468	A	C5-C6-N1	-5.36	115.02	117.70
5	A	2827	A	C5-C6-N1	-5.36	115.02	117.70
5	A	179	A	C4-C5-C6	5.36	119.68	117.00
5	A	277	C	N3-C4-C5	-5.36	119.76	121.90
5	A	658	A	C5-C6-N1	-5.36	115.02	117.70
5	A	2000	A	C5-C6-N1	-5.36	115.02	117.70
5	A	594	C	N3-C4-N4	5.36	121.75	118.00
5	A	717	A	C5-C6-N1	-5.36	115.02	117.70
5	A	2218	U	O4'-C1'-N1	5.36	112.49	108.20
5	A	2287	C	O4'-C1'-N1	5.36	112.49	108.20
5	A	39	C	N3-C4-N4	5.36	121.75	118.00
5	A	122	G	O3'-P-O5'	-5.36	93.82	104.00
5	A	364	A	C5-C6-N1	-5.36	115.02	117.70
5	A	555	C	N3-C4-N4	5.36	121.75	118.00
5	A	935	A	C5-C6-N1	-5.36	115.02	117.70
5	A	1583	A	C5'-C4'-O4'	5.36	115.53	109.10
5	A	1862	C	N3-C4-N4	5.36	121.75	118.00
5	A	1995	A	C5-C6-N6	-5.36	119.41	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2315	A	C5-C6-N1	-5.36	115.02	117.70
5	A	2759	C	N3-C4-C5	-5.36	119.76	121.90
5	A	2801	C	P-O5'-C5'	5.36	129.47	120.90
5	A	315	C	N3-C4-C5	-5.36	119.76	121.90
5	A	594	C	N3-C4-C5	-5.36	119.76	121.90
5	A	1084	A	C5-C6-N1	-5.36	115.02	117.70
5	A	1476	C	N3-C4-C5	-5.36	119.76	121.90
5	A	1755	C	N3-C4-N4	5.36	121.75	118.00
5	A	2327	A	C5-C6-N1	-5.36	115.02	117.70
5	A	2588	C	N3-C4-C5	-5.36	119.76	121.90
5	A	2686	A	C5-C6-N6	-5.36	119.42	123.70
5	A	2701	U	O4'-C1'-N1	5.36	112.48	108.20
5	A	1654	A	C5-C6-N6	-5.35	119.42	123.70
6	B	64	A	C5-C6-N6	-5.35	119.42	123.70
5	A	388	A	O4'-C1'-N9	5.35	112.48	108.20
5	A	1305	A	O4'-C1'-N9	5.35	112.48	108.20
5	A	1705	C	N3-C4-N4	5.35	121.75	118.00
5	A	2143	A	C5-C6-N6	-5.35	119.42	123.70
5	A	2256	A	C5-C6-N1	-5.35	115.02	117.70
5	A	2845	A	C5-C6-N6	-5.35	119.42	123.70
5	A	391	A	C4-C5-C6	5.35	119.68	117.00
5	A	584	A	O4'-C1'-N9	5.35	112.48	108.20
5	A	1186	C	N3-C4-C5	-5.35	119.76	121.90
5	A	1772	C	N3-C4-C5	-5.35	119.76	121.90
5	A	2343	A	C5-C6-N6	-5.35	119.42	123.70
5	A	2389	A	C5-C6-N6	-5.35	119.42	123.70
5	A	470	A	C5-C6-N6	-5.35	119.42	123.70
5	A	683	A	C5-C6-N1	-5.35	115.03	117.70
5	A	1438	C	N3-C4-C5	-5.35	119.76	121.90
5	A	2003	C	N3-C4-C5	-5.35	119.76	121.90
5	A	2468	A	O4'-C1'-N9	5.35	112.48	108.20
5	A	2812	A	O4'-C1'-N9	5.35	112.48	108.20
5	A	2850	G	O4'-C1'-N9	5.35	112.48	108.20
5	A	1072	A	C5-C6-N6	-5.35	119.42	123.70
5	A	1564	C	N3-C4-C5	-5.35	119.76	121.90
5	A	2109	G	O4'-C1'-N9	5.35	112.48	108.20
5	A	256	C	N3-C4-C5	-5.35	119.76	121.90
5	A	1092	A	C5-C6-N6	-5.35	119.42	123.70
5	A	1555	A	C5-C6-N1	-5.35	115.03	117.70
5	A	2376	C	N3-C4-C5	-5.35	119.76	121.90
5	A	2447	A	C5-C6-N6	-5.35	119.42	123.70
5	A	185	A	C5-C6-N6	-5.34	119.42	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	271	C	N3-C4-C5	-5.34	119.76	121.90
5	A	912	C	N3-C4-N4	5.34	121.74	118.00
5	A	968	C	N3-C4-C5	-5.34	119.76	121.90
5	A	1017	C	N3-C4-N4	5.34	121.74	118.00
5	A	1608	A	P-O5'-C5'	5.34	129.45	120.90
5	A	1654	A	C5-C6-N1	-5.34	115.03	117.70
5	A	2453	C	N3-C4-C5	-5.34	119.76	121.90
5	A	2632	G	O4'-C1'-N9	5.34	112.47	108.20
5	A	2782	A	C5-C6-N1	-5.34	115.03	117.70
5	A	1260	A	C5-C6-N1	-5.34	115.03	117.70
5	A	2923	A	C5-C6-N1	-5.34	115.03	117.70
5	A	84	A	C5-C6-N1	-5.34	115.03	117.70
5	A	1452	C	N3-C4-C5	-5.34	119.76	121.90
5	A	1723	A	C5-C6-N1	-5.34	115.03	117.70
5	A	2485	C	N3-C4-C5	-5.34	119.76	121.90
5	A	2526	A	O4'-C1'-N9	5.34	112.47	108.20
5	A	661	A	C5-C6-N1	-5.34	115.03	117.70
5	A	978	A	C5-C6-N1	-5.34	115.03	117.70
5	A	1019	A	C4-C5-C6	5.34	119.67	117.00
5	A	1188	A	C5-C6-N6	-5.34	119.43	123.70
5	A	2509	C	N3-C4-C5	-5.34	119.76	121.90
6	B	40	C	N3-C4-N4	5.34	121.74	118.00
5	A	1042	A	P-O3'-C3'	5.34	126.11	119.70
5	A	1124	C	N3-C4-N4	5.34	121.74	118.00
5	A	1618	A	C5-C6-N6	-5.34	119.43	123.70
5	A	245	G	C4'-C3'-C2'	-5.34	97.26	102.60
5	A	505	G	O4'-C1'-N9	5.34	112.47	108.20
5	A	1264	G	O4'-C1'-N9	5.34	112.47	108.20
5	A	1395	C	N3-C4-C5	-5.34	119.77	121.90
5	A	1442	A	C5-C6-N6	-5.34	119.43	123.70
5	A	1957	A	O4'-C1'-N9	5.34	112.47	108.20
5	A	2407	A	C5-C6-N6	-5.34	119.43	123.70
5	A	2781	C	N3-C4-C5	-5.34	119.77	121.90
5	A	179	A	C5-C6-N1	-5.33	115.03	117.70
5	A	1120	G	O4'-C1'-N9	5.33	112.47	108.20
5	A	1867	C	N3-C4-C5	-5.33	119.77	121.90
5	A	2043	A	C4-C5-C6	5.33	119.67	117.00
5	A	2582	G	O4'-C1'-N9	5.33	112.47	108.20
5	A	378	C	O4'-C1'-N1	5.33	112.47	108.20
5	A	1073	A	C5-C6-N1	-5.33	115.03	117.70
5	A	1405	A	C5-C6-N1	-5.33	115.03	117.70
5	A	1970	C	N3-C4-N4	5.33	121.73	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2410	C	N3-C4-C5	-5.33	119.77	121.90
5	A	2862	A	C4-C5-C6	5.33	119.67	117.00
5	A	2909	U	C4'-C3'-C2'	-5.33	97.27	102.60
5	A	207	A	C5-C6-N1	-5.33	115.03	117.70
5	A	820	U	O4'-C1'-N1	5.33	112.46	108.20
5	A	2657	C	N3-C4-N4	5.33	121.73	118.00
5	A	305	A	C5-C6-N1	-5.33	115.04	117.70
5	A	974	A	C5-C6-N6	-5.33	119.44	123.70
5	A	1142	A	O4'-C1'-N9	5.33	112.46	108.20
5	A	1614	A	O4'-C1'-N9	5.33	112.46	108.20
5	A	1932	G	N3-C2-N2	5.33	123.63	119.90
5	A	1974	G	O4'-C1'-N9	5.33	112.46	108.20
7	C	260	ARG	N-CA-CB	5.33	120.19	110.60
5	A	2107	C	N3-C4-C5	-5.33	119.77	121.90
5	A	449	A	C5-C6-N6	-5.33	119.44	123.70
5	A	1339	A	O4'-C4'-C3'	-5.33	98.67	104.00
5	A	1679	A	C5-C6-N6	-5.33	119.44	123.70
5	A	2470	C	N3-C4-C5	-5.33	119.77	121.90
5	A	2471	C	N3-C4-N4	5.33	121.73	118.00
5	A	2504	C	N3-C4-C5	-5.33	119.77	121.90
5	A	2528	C	N3-C4-N4	5.33	121.73	118.00
5	A	572	A	C1'-O4'-C4'	-5.32	105.64	109.90
5	A	588	C	N3-C4-C5	-5.32	119.77	121.90
5	A	1369	C	N3-C4-C5	-5.32	119.77	121.90
5	A	1652	C	N3-C4-C5	-5.32	119.77	121.90
5	A	2029	G	O4'-C1'-N9	5.32	112.46	108.20
5	A	2590	A	C5-C6-N6	-5.32	119.44	123.70
5	A	1201	A	O4'-C1'-N9	5.32	112.46	108.20
5	A	2328	G	O4'-C1'-N9	5.32	112.46	108.20
5	A	2614	U	C6-N1-C1'	-5.32	113.75	121.20
5	A	95	A	C5-C6-N6	-5.32	119.44	123.70
5	A	1054	A	C5-C6-N6	-5.32	119.44	123.70
5	A	1721	A	O5'-C5'-C4'	5.32	121.81	111.70
5	A	2898	A	C5-C6-N6	-5.32	119.44	123.70
6	B	105	A	C5-C6-N1	-5.32	115.04	117.70
5	A	1265	A	C5-C6-N1	-5.32	115.04	117.70
5	A	1861	C	N3-C4-N4	5.32	121.72	118.00
5	A	2532	A	C5-C6-N6	-5.32	119.44	123.70
5	A	166	A	C5-C6-N1	-5.32	115.04	117.70
5	A	202	A	C5-C6-N6	-5.32	119.45	123.70
5	A	867	A	O4'-C1'-N9	5.32	112.45	108.20
5	A	1066	A	C5-C6-N1	-5.32	115.04	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1233	A	P-O3'-C3'	-5.32	113.32	119.70
5	A	1456	A	C5-C6-N1	-5.32	115.04	117.70
5	A	1943	C	N3-C4-C5	-5.32	119.77	121.90
5	A	380	C	N3-C4-N4	5.32	121.72	118.00
5	A	1067	A	C5-C6-N1	-5.32	115.04	117.70
5	A	1298	C	N3-C4-C5	-5.32	119.77	121.90
5	A	2356	A	C5-C6-N6	-5.32	119.45	123.70
5	A	2631	A	C5-C6-N1	-5.32	115.04	117.70
5	A	1003	A	C5-C6-N1	-5.31	115.04	117.70
5	A	2369	A	C5-C6-N1	-5.31	115.04	117.70
5	A	2834	A	C5-C6-N1	-5.31	115.04	117.70
5	A	275	A	C5-C6-N6	-5.31	119.45	123.70
5	A	732	A	O4'-C1'-N9	5.31	112.45	108.20
5	A	759	G	P-O3'-C3'	-5.31	113.32	119.70
5	A	1179	A	O4'-C1'-N9	5.31	112.45	108.20
5	A	1224	A	C5-C6-N1	-5.31	115.04	117.70
5	A	1728	C	N3-C4-N4	5.31	121.72	118.00
5	A	1843	G	O4'-C1'-N9	5.31	112.45	108.20
5	A	2348	C	N3-C4-C5	-5.31	119.78	121.90
5	A	2420	G	O4'-C1'-N9	5.31	112.45	108.20
5	A	2469	C	N3-C4-N4	5.31	121.72	118.00
5	A	2689	A	C5-C6-N1	-5.31	115.04	117.70
5	A	2661	A	C5-C6-N6	-5.31	119.45	123.70
5	A	452	C	C6-N1-C1'	-5.31	114.43	120.80
5	A	933	C	C2-N1-C1'	5.31	124.64	118.80
5	A	1715	C	N3-C4-N4	5.31	121.72	118.00
5	A	1844	A	C4-C5-C6	5.31	119.65	117.00
5	A	2826	A	O4'-C1'-N9	5.31	112.45	108.20
5	A	456	A	C4-C5-C6	5.31	119.65	117.00
5	A	475	A	O4'-C1'-N9	5.31	112.45	108.20
5	A	516	G	N3-C2-N2	5.31	123.61	119.90
5	A	1027	A	C5-C6-N1	-5.31	115.05	117.70
5	A	1237	C	N3-C4-N4	5.31	121.72	118.00
5	A	1696	G	C5'-C4'-C3'	-5.31	107.51	116.00
5	A	1956	A	C5-C6-N1	-5.31	115.05	117.70
5	A	2256	A	C5-C6-N6	-5.31	119.45	123.70
5	A	2398	A	C5-C6-N1	-5.31	115.05	117.70
5	A	2722	A	C5-C6-N6	-5.31	119.45	123.70
6	B	106	C	N3-C4-C5	-5.31	119.78	121.90
5	A	478	U	O4'-C1'-N1	5.30	112.44	108.20
5	A	678	A	O4'-C1'-N9	5.30	112.44	108.20
5	A	1021	A	C5-C6-N1	-5.30	115.05	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1617	A	C5-C6-N1	-5.30	115.05	117.70
5	A	2221	C	N3-C4-C5	-5.30	119.78	121.90
5	A	2269	C	N3-C4-N4	5.30	121.71	118.00
5	A	2584	U	O4'-C1'-N1	5.30	112.44	108.20
5	A	2729	C	N3-C4-C5	-5.30	119.78	121.90
5	A	384	A	O4'-C1'-N9	5.30	112.44	108.20
5	A	1269	A	C5-C6-N6	-5.30	119.46	123.70
5	A	1608	A	C5-C6-N1	-5.30	115.05	117.70
5	A	1211	C	N3-C4-N4	5.30	121.71	118.00
5	A	1540	A	C5-C6-N6	-5.30	119.46	123.70
5	A	1579	A	C5-C6-N6	-5.30	119.46	123.70
5	A	1625	C	N3-C4-C5	-5.30	119.78	121.90
5	A	2060	A	C5-C6-N1	-5.30	115.05	117.70
5	A	2298	A	C5-C6-N1	-5.30	115.05	117.70
5	A	93	C	N3-C4-C5	-5.30	119.78	121.90
5	A	879	G	O4'-C1'-N9	5.30	112.44	108.20
5	A	937	C	N3-C4-N4	5.30	121.71	118.00
5	A	1098	C	N3-C4-C5	-5.30	119.78	121.90
5	A	2220	A	C5-C6-N6	-5.30	119.46	123.70
5	A	2796	C	N3-C4-C5	-5.30	119.78	121.90
5	A	41	A	C5-C6-N1	-5.30	115.05	117.70
5	A	1126	A	O4'-C1'-N9	5.30	112.44	108.20
5	A	1701	C	N3-C4-C5	-5.30	119.78	121.90
5	A	2349	A	O4'-C1'-N9	5.30	112.44	108.20
5	A	2399	G	O4'-C1'-N9	5.30	112.44	108.20
5	A	318	A	O4'-C1'-N9	5.30	112.44	108.20
5	A	1573	C	N3-C4-C5	-5.30	119.78	121.90
5	A	1934	C	N3-C4-C5	-5.30	119.78	121.90
5	A	2312	C	N3-C4-C5	-5.30	119.78	121.90
5	A	2854	A	O4'-C1'-N9	5.30	112.44	108.20
5	A	436	A	C5-C6-N1	-5.29	115.05	117.70
5	A	828	A	C5-C6-N1	-5.29	115.05	117.70
5	A	1198	C	N3-C4-C5	-5.29	119.78	121.90
5	A	1677	A	C5-C6-N6	-5.29	119.46	123.70
5	A	2381	A	O4'-C1'-N9	5.29	112.44	108.20
5	A	2601	A	C5-C6-N1	-5.29	115.05	117.70
5	A	2858	U	P-O3'-C3'	5.29	126.05	119.70
5	A	2927	A	C5-C6-N1	-5.29	115.05	117.70
5	A	67	A	C4-C5-C6	5.29	119.65	117.00
5	A	131	C	C2-N3-C4	5.29	122.55	119.90
5	A	787	C	N3-C4-C5	-5.29	119.78	121.90
5	A	1123	A	C5-C6-N1	-5.29	115.05	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1788	A	C5-C6-N6	-5.29	119.46	123.70
5	A	1970	C	N3-C4-C5	-5.29	119.78	121.90
5	A	2317	A	C5-C6-N1	-5.29	115.05	117.70
5	A	2641	C	N3-C4-C5	-5.29	119.78	121.90
5	A	67	A	C5-C6-N6	-5.29	119.47	123.70
5	A	168	A	C5-C6-N6	-5.29	119.47	123.70
5	A	328	G	O4'-C1'-N9	5.29	112.43	108.20
5	A	1144	A	C5-C6-N1	-5.29	115.05	117.70
5	A	1180	C	O4'-C1'-N1	5.29	112.43	108.20
5	A	1328	C	N3-C4-N4	5.29	121.70	118.00
5	A	1369	C	C2-N1-C1'	5.29	124.62	118.80
5	A	1642	G	O4'-C1'-N9	5.29	112.43	108.20
5	A	1691	A	C5-C6-N1	-5.29	115.06	117.70
5	A	1836	G	N3-C2-N2	5.29	123.60	119.90
5	A	1993	G	C5'-C4'-C3'	-5.29	107.53	116.00
5	A	2133	C	C5-C4-N4	-5.29	116.50	120.20
5	A	2351	A	C5-C6-N1	-5.29	115.05	117.70
5	A	2618	A	C5-C6-N1	-5.29	115.05	117.70
5	A	2755	U	P-O5'-C5'	5.29	129.37	120.90
5	A	2807	A	C5-C6-N1	-5.29	115.06	117.70
5	A	281	A	O4'-C1'-N9	5.29	112.43	108.20
5	A	840	A	C5-C6-N1	-5.29	115.06	117.70
5	A	1588	A	C5-C6-N6	-5.29	119.47	123.70
5	A	2229	C	N3-C4-C5	-5.29	119.78	121.90
5	A	2534	G	O4'-C1'-N9	5.29	112.43	108.20
5	A	10	A	C5-C6-N1	-5.29	115.06	117.70
5	A	355	A	C5-C6-N6	-5.29	119.47	123.70
5	A	733	U	P-O5'-C5'	-5.29	112.44	120.90
5	A	2278	U	O4'-C1'-N1	5.29	112.43	108.20
5	A	2694	A	C5-C6-N1	-5.29	115.06	117.70
10	F	75	ALA	N-CA-CB	5.29	117.50	110.10
5	A	29	U	O4'-C1'-N1	5.29	112.43	108.20
5	A	86	C	N3-C4-C5	-5.29	119.78	121.90
5	A	1812	A	C5-C6-N6	-5.29	119.47	123.70
5	A	2507	A	C4-C5-C6	5.29	119.64	117.00
5	A	39	C	N3-C4-C5	-5.29	119.79	121.90
5	A	490	A	C5-C6-N6	-5.29	119.47	123.70
5	A	661	A	C5-C6-N6	-5.29	119.47	123.70
5	A	1284	A	O4'-C1'-N9	5.29	112.43	108.20
5	A	1751	U	O4'-C1'-N1	5.29	112.43	108.20
5	A	2307	A	C5-C6-N6	-5.29	119.47	123.70
5	A	68	C	N3-C4-C5	-5.28	119.79	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	319	G	O4'-C1'-N9	5.28	112.43	108.20
5	A	867	A	C5-C6-N6	-5.28	119.47	123.70
5	A	1996	C	N3-C4-C5	-5.28	119.79	121.90
5	A	2091	A	C5-C6-N1	-5.28	115.06	117.70
5	A	2294	U	P-O5'-C5'	-5.28	112.45	120.90
5	A	2497	A	C4-C5-C6	5.28	119.64	117.00
6	B	90	C	N3-C4-C5	-5.28	119.79	121.90
5	A	339	A	C5-C6-N6	-5.28	119.47	123.70
5	A	671	G	O4'-C1'-N9	5.28	112.42	108.20
5	A	760	G	C6-C5-N7	-5.28	127.23	130.40
5	A	781	A	C5-C6-N1	-5.28	115.06	117.70
5	A	1404	A	C5-C6-N6	-5.28	119.47	123.70
5	A	1656	C	N3-C4-N4	5.28	121.70	118.00
5	A	2887	A	C5-C6-N1	-5.28	115.06	117.70
6	B	18	A	C5-C6-N6	-5.28	119.47	123.70
5	A	60	G	O4'-C1'-N9	5.28	112.42	108.20
5	A	563	C	N3-C4-N4	5.28	121.70	118.00
5	A	703	G	O4'-C1'-N9	5.28	112.42	108.20
5	A	751	G	N1-C2-N3	-5.28	120.73	123.90
5	A	2185	G	O4'-C1'-N9	5.28	112.42	108.20
5	A	2237	C	N3-C4-C5	-5.28	119.79	121.90
5	A	2441	A	C5-C6-N1	-5.28	115.06	117.70
5	A	207	A	C5-C6-N6	-5.28	119.48	123.70
5	A	501	A	C5-C6-N1	-5.28	115.06	117.70
5	A	1080	G	O4'-C1'-N9	5.28	112.42	108.20
5	A	1699	A	O4'-C1'-N9	5.28	112.42	108.20
5	A	2152	A	C5-C6-N1	-5.28	115.06	117.70
5	A	252	C	N3-C4-C5	-5.28	119.79	121.90
5	A	415	C	N3-C4-C5	-5.28	119.79	121.90
5	A	547	A	O4'-C1'-N9	5.28	112.42	108.20
5	A	652	A	C5-C6-N1	-5.28	115.06	117.70
5	A	702	A	C5-C6-N1	-5.28	115.06	117.70
5	A	1288	G	P-O3'-C3'	5.28	126.03	119.70
5	A	1789	A	C5-C6-N1	-5.28	115.06	117.70
5	A	2402	A	C5-C6-N1	-5.28	115.06	117.70
5	A	2762	A	C5-C6-N1	-5.28	115.06	117.70
5	A	195	C	N3-C4-N4	5.28	121.69	118.00
5	A	673	A	C4-C5-C6	5.28	119.64	117.00
5	A	1464	A	C5-C6-N6	-5.28	119.48	123.70
5	A	1660	C	N3-C4-C5	-5.28	119.79	121.90
5	A	1279	C	N3-C4-C5	-5.27	119.79	121.90
5	A	222	A	C5-C6-N1	-5.27	115.06	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	677	A	C4-C5-C6	5.27	119.64	117.00
5	A	999	A	C5-C6-N6	-5.27	119.48	123.70
5	A	1810	G	O4'-C1'-N9	5.27	112.42	108.20
5	A	2587	C	N3-C4-C5	-5.27	119.79	121.90
6	B	105	A	C5-C6-N6	-5.27	119.48	123.70
5	A	469	A	C5-C6-N6	-5.27	119.48	123.70
5	A	1190	A	C5-C6-N1	-5.27	115.06	117.70
5	A	389	A	C5-C6-N1	-5.27	115.06	117.70
5	A	406	G	O4'-C1'-N9	5.27	112.42	108.20
5	A	470	A	C5-C6-N1	-5.27	115.06	117.70
5	A	798	A	C5-C6-N1	-5.27	115.06	117.70
5	A	1072	A	C5-C6-N1	-5.27	115.06	117.70
5	A	1211	C	P-O5'-C5'	5.27	129.33	120.90
5	A	1286	A	C5-C6-N6	-5.27	119.48	123.70
5	A	1404	A	O4'-C1'-N9	5.27	112.42	108.20
5	A	2500	A	C5-C6-N6	-5.27	119.48	123.70
5	A	2651	C	N3-C4-C5	-5.27	119.79	121.90
5	A	27	G	O4'-C1'-N9	5.27	112.41	108.20
5	A	519	A	C5-C6-N1	-5.27	115.07	117.70
5	A	796	A	C5-C6-N1	-5.27	115.07	117.70
5	A	1070	G	O4'-C1'-N9	5.27	112.41	108.20
5	A	1142	A	C5-C6-N1	-5.27	115.07	117.70
5	A	1164	C	N3-C4-C5	-5.27	119.79	121.90
5	A	1816	A	O4'-C1'-N9	5.27	112.41	108.20
6	B	51	A	C5-C6-N6	-5.27	119.48	123.70
5	A	228	C	C2-N3-C4	5.27	122.53	119.90
5	A	838	C	N3-C4-C5	-5.27	119.79	121.90
5	A	2826	A	C5-C6-N1	-5.27	115.07	117.70
5	A	74	U	C6-N1-C1'	-5.26	113.83	121.20
5	A	252	C	N3-C4-N4	5.26	121.69	118.00
5	A	327	G	O4'-C1'-N9	5.26	112.41	108.20
5	A	604	C	N3-C4-C5	-5.26	119.79	121.90
5	A	863	C	N3-C4-C5	-5.26	119.79	121.90
5	A	893	A	C5-C6-N1	-5.26	115.07	117.70
5	A	1100	A	C5-C6-N6	-5.26	119.49	123.70
5	A	1461	A	C4-C5-C6	5.26	119.63	117.00
5	A	2327	A	C5-C6-N6	-5.26	119.49	123.70
5	A	479	A	O4'-C1'-N9	5.26	112.41	108.20
5	A	2058	G	N3-C2-N2	5.26	123.58	119.90
5	A	2230	C	N3-C4-C5	-5.26	119.80	121.90
5	A	102	A	C5-C6-N1	-5.26	115.07	117.70
5	A	1747	G	O4'-C1'-N9	5.26	112.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2804	A	C5-C6-N6	-5.26	119.49	123.70
5	A	318	A	C5-C6-N1	-5.26	115.07	117.70
5	A	979	U	C6-N1-C1'	-5.26	113.84	121.20
5	A	1040	C	N3-C4-C5	-5.26	119.80	121.90
5	A	1116	A	C5-C6-N1	-5.26	115.07	117.70
5	A	1534	A	O4'-C1'-N9	5.26	112.41	108.20
5	A	1755	C	N3-C4-C5	-5.26	119.80	121.90
5	A	2339	A	C5-C6-N1	-5.26	115.07	117.70
5	A	2346	C	N3-C4-N4	5.26	121.68	118.00
5	A	2459	A	C5-C6-N1	-5.26	115.07	117.70
5	A	2736	G	O4'-C1'-N9	5.26	112.41	108.20
5	A	210	A	C4-C5-C6	5.26	119.63	117.00
5	A	247	A	C5-C6-N1	-5.26	115.07	117.70
5	A	1876	A	O4'-C1'-N9	5.26	112.41	108.20
5	A	2290	C	N3-C4-C5	-5.26	119.80	121.90
5	A	56	A	C5-C6-N1	-5.26	115.07	117.70
5	A	1273	G	O4'-C1'-N9	5.26	112.40	108.20
5	A	1388	A	C5-C6-N1	-5.26	115.07	117.70
5	A	1465	A	C5-C6-N6	-5.26	119.50	123.70
5	A	1942	A	C5-C6-N1	-5.26	115.07	117.70
5	A	2047	A	C5-C6-N1	-5.26	115.07	117.70
5	A	2144	G	N3-C2-N2	5.26	123.58	119.90
5	A	2820	U	C6-N1-C1'	-5.26	113.84	121.20
5	A	2846	A	C5-C6-N1	-5.26	115.07	117.70
5	A	2923	A	O4'-C1'-N9	5.26	112.41	108.20
5	A	165	C	N3-C4-N4	5.25	121.68	118.00
5	A	1732	G	O4'-C1'-N9	5.25	112.40	108.20
5	A	1815	A	C5-C6-N6	-5.25	119.50	123.70
5	A	2191	A	C5-C6-N1	-5.25	115.07	117.70
5	A	254	A	O4'-C1'-N9	5.25	112.40	108.20
5	A	285	U	O4'-C1'-N1	5.25	112.40	108.20
5	A	391	A	C5-C6-N6	-5.25	119.50	123.70
5	A	519	A	C8-N9-C4	-5.25	103.70	105.80
5	A	715	A	C5-C6-N6	-5.25	119.50	123.70
5	A	1323	A	C4-C5-C6	5.25	119.63	117.00
5	A	1354	C	N3-C4-C5	-5.25	119.80	121.90
5	A	1423	A	C5-C6-N1	-5.25	115.07	117.70
5	A	1809	A	O4'-C1'-N9	5.25	112.40	108.20
5	A	301	U	O4'-C1'-N1	5.25	112.40	108.20
5	A	1222	A	C5-C6-N1	-5.25	115.07	117.70
5	A	1527	C	N3-C4-C5	-5.25	119.80	121.90
5	A	1601	A	C5-C6-N6	-5.25	119.50	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1811	C	N3-C4-C5	-5.25	119.80	121.90
5	A	1845	A	C5-C6-N1	-5.25	115.07	117.70
5	A	1957	A	C5-C6-N6	-5.25	119.50	123.70
5	A	1237	C	N3-C4-C5	-5.25	119.80	121.90
5	A	2071	A	C5-C6-N1	-5.25	115.08	117.70
5	A	2297	A	O4'-C1'-N9	5.25	112.40	108.20
5	A	811	A	P-O3'-C3'	-5.25	113.40	119.70
5	A	1211	C	N3-C4-C5	-5.25	119.80	121.90
5	A	1605	C	N3-C4-N4	5.25	121.67	118.00
5	A	1965	A	C5-C6-N1	-5.25	115.08	117.70
5	A	2174	C	N3-C4-C5	-5.25	119.80	121.90
5	A	2462	A	C5-C6-N1	-5.25	115.08	117.70
5	A	2683	A	C5-C6-N1	-5.25	115.08	117.70
5	A	770	A	O4'-C1'-N9	5.25	112.40	108.20
5	A	1615	A	C5-C6-N6	-5.25	119.50	123.70
5	A	2281	G	O4'-C1'-N9	5.25	112.40	108.20
5	A	696	C	N3-C4-C5	-5.25	119.80	121.90
5	A	1092	A	C5-C6-N1	-5.24	115.08	117.70
5	A	1147	U	O4'-C1'-N1	5.24	112.39	108.20
5	A	1432	A	C5-C6-N1	-5.24	115.08	117.70
5	A	2170	A	C5-C6-N1	-5.24	115.08	117.70
5	A	2255	C	N3-C4-N4	5.24	121.67	118.00
5	A	2593	A	C5-C6-N1	-5.24	115.08	117.70
5	A	325	A	C5-C6-N1	-5.24	115.08	117.70
5	A	880	C	N3-C4-C5	-5.24	119.80	121.90
5	A	353	A	C5-N7-C8	5.24	106.52	103.90
5	A	1017	C	N3-C4-C5	-5.24	119.81	121.90
5	A	1591	G	C1'-O4'-C4'	5.24	114.09	109.90
5	A	1592	A	C5-C6-N1	-5.24	115.08	117.70
5	A	1815	A	C5-C6-N1	-5.24	115.08	117.70
5	A	2083	A	C5-C6-N1	-5.24	115.08	117.70
5	A	2597	C	N3-C4-C5	-5.24	119.81	121.90
5	A	14	A	C4-C5-C6	5.24	119.62	117.00
5	A	526	A	C5-C6-N1	-5.24	115.08	117.70
5	A	2027	A	C5-C6-N6	-5.24	119.51	123.70
5	A	2546	C	N3-C4-C5	-5.24	119.81	121.90
5	A	705	A	O4'-C1'-N9	5.24	112.39	108.20
5	A	1613	C	N3-C4-C5	-5.24	119.81	121.90
5	A	1872	C	N3-C4-C5	-5.23	119.81	121.90
5	A	2079	C	N3-C4-N4	5.23	121.66	118.00
5	A	2527	C	C6-N1-C2	-5.23	118.21	120.30
5	A	330	A	C5-C6-N6	-5.23	119.52	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	653	A	C5-C6-N6	-5.23	119.51	123.70
5	A	853	C	N3-C4-N4	5.23	121.66	118.00
5	A	987	A	C5-C6-N6	-5.23	119.51	123.70
5	A	1593	A	C5-C6-N1	-5.23	115.08	117.70
5	A	1667	A	C5-C6-N6	-5.23	119.51	123.70
5	A	1828	G	C4'-C3'-C2'	5.23	107.83	102.60
5	A	66	C	C5-C4-N4	-5.23	116.54	120.20
5	A	375	C	O4'-C1'-N1	5.23	112.38	108.20
5	A	574	A	C5-C6-N6	-5.23	119.52	123.70
5	A	592	A	O4'-C1'-N9	5.23	112.38	108.20
5	A	1155	C	N3-C4-C5	-5.23	119.81	121.90
5	A	1200	G	O4'-C1'-N9	5.23	112.39	108.20
5	A	1832	A	C4-C5-C6	5.23	119.61	117.00
5	A	2316	A	C5-C6-N1	-5.23	115.08	117.70
5	A	2680	C	N3-C4-C5	-5.23	119.81	121.90
5	A	53	A	C5-C6-N6	-5.23	119.52	123.70
5	A	715	A	C5-C6-N1	-5.23	115.09	117.70
5	A	2662	A	C5-C6-N1	-5.23	115.09	117.70
5	A	412	A	C5-C6-N1	-5.23	115.09	117.70
5	A	683	A	C5-C6-N6	-5.23	119.52	123.70
5	A	1159	U	P-O3'-C3'	-5.23	113.43	119.70
5	A	2393	C	N3-C4-C5	-5.23	119.81	121.90
5	A	414	C	C5'-C4'-O4'	5.22	115.37	109.10
5	A	430	C	N3-C4-N4	5.22	121.66	118.00
5	A	2367	G	O4'-C1'-N9	5.22	112.38	108.20
5	A	2784	C	N3-C4-C5	-5.22	119.81	121.90
5	A	83	G	C1'-O4'-C4'	-5.22	105.72	109.90
5	A	236	A	C5-C6-N6	-5.22	119.52	123.70
5	A	1323	A	C5-C6-N6	-5.22	119.52	123.70
5	A	1662	C	N3-C4-C5	-5.22	119.81	121.90
5	A	2104	U	O4'-C1'-N1	5.22	112.38	108.20
5	A	2547	A	C5-C6-N6	-5.22	119.52	123.70
5	A	667	A	C1'-O4'-C4'	-5.22	105.72	109.90
5	A	2920	C	N3-C4-C5	-5.22	119.81	121.90
5	A	324	A	O4'-C1'-N9	5.22	112.38	108.20
5	A	2080	A	C5-C6-N6	-5.22	119.53	123.70
5	A	2276	A	O4'-C1'-N9	5.22	112.38	108.20
5	A	218	G	P-O3'-C3'	5.22	125.96	119.70
6	B	56	A	C5-C6-N1	-5.22	115.09	117.70
5	A	194	A	C5-C6-N6	-5.22	119.53	123.70
5	A	265	A	O4'-C1'-N9	5.22	112.37	108.20
5	A	300	G	C6-C5-N7	-5.22	127.27	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	452	C	N3-C4-C5	-5.22	119.81	121.90
5	A	797	A	C5-C6-N1	-5.22	115.09	117.70
5	A	1585	A	C5-C6-N1	-5.22	115.09	117.70
5	A	1700	A	C4-C5-C6	5.22	119.61	117.00
5	A	2088	A	C5-C6-N1	-5.22	115.09	117.70
5	A	2497	A	C5-C6-N6	-5.22	119.53	123.70
5	A	1046	A	C5-C6-N1	-5.21	115.09	117.70
5	A	1224	A	C4-C5-C6	5.21	119.61	117.00
5	A	1541	A	O4'-C1'-N9	5.21	112.37	108.20
5	A	1995	A	O4'-C1'-N9	5.21	112.37	108.20
5	A	2819	A	C5-C6-N1	-5.21	115.09	117.70
6	B	50	A	C4-C5-C6	5.21	119.61	117.00
5	A	1669	G	O4'-C1'-N9	5.21	112.37	108.20
5	A	176	A	C5-C6-N1	-5.21	115.09	117.70
5	A	1032	C	N3-C4-C5	-5.21	119.81	121.90
5	A	1055	A	C5-C6-N1	-5.21	115.09	117.70
5	A	1735	A	C5-C6-N6	-5.21	119.53	123.70
5	A	2542	A	O4'-C1'-N9	5.21	112.37	108.20
5	A	1446	C	N3-C4-C5	-5.21	119.82	121.90
5	A	2122	G	N3-C2-N2	5.21	123.55	119.90
5	A	699	A	C5-C6-N1	-5.21	115.10	117.70
5	A	1490	A	C5-C6-N6	-5.21	119.53	123.70
5	A	1504	A	C5-C6-N1	-5.21	115.10	117.70
5	A	2132	A	O4'-C1'-N9	5.21	112.37	108.20
5	A	2455	A	C5-C6-N1	-5.21	115.10	117.70
5	A	2902	A	O4'-C1'-N9	5.21	112.37	108.20
5	A	1134	A	C5'-C4'-O4'	5.21	115.35	109.10
5	A	1230	A	C5-C6-N1	-5.21	115.10	117.70
5	A	2338	A	C5-C6-N1	-5.21	115.10	117.70
5	A	2673	A	C5-C6-N1	-5.21	115.10	117.70
5	A	162	A	O4'-C1'-N9	5.21	112.36	108.20
5	A	651	U	O4'-C1'-N1	5.21	112.36	108.20
5	A	1403	G	O4'-C1'-N9	5.21	112.36	108.20
5	A	1370	C	N3-C4-N4	5.20	121.64	118.00
5	A	2693	G	O4'-C1'-N9	5.20	112.36	108.20
5	A	2845	A	C5-C6-N1	-5.20	115.10	117.70
5	A	28	A	C5-C6-N1	-5.20	115.10	117.70
5	A	208	G	C4'-C3'-C2'	-5.20	97.40	102.60
5	A	779	C	N3-C4-C5	-5.20	119.82	121.90
5	A	1210	A	C5-C6-N6	-5.20	119.54	123.70
5	A	482	C	N3-C4-C5	-5.20	119.82	121.90
5	A	630	A	C5-C6-N6	-5.20	119.54	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	836	A	C5-C6-N6	-5.20	119.54	123.70
5	A	2059	A	C5-C6-N1	-5.20	115.10	117.70
5	A	2246	G	C6-C5-N7	-5.20	127.28	130.40
5	A	2299	G	O4'-C1'-N9	5.20	112.36	108.20
5	A	855	G	C5-C6-O6	-5.20	125.48	128.60
5	A	1729	C	N3-C4-C5	-5.20	119.82	121.90
5	A	2141	A	O4'-C1'-N9	5.20	112.36	108.20
5	A	718	C	C5'-C4'-C3'	-5.20	107.69	116.00
5	A	1	G	O4'-C1'-N9	5.20	112.36	108.20
5	A	1037	C	N3-C4-C5	-5.20	119.82	121.90
5	A	2800	C	N3-C4-C5	-5.20	119.82	121.90
5	A	2905	C	N3-C4-N4	5.20	121.64	118.00
5	A	736	A	C5-C6-N1	-5.19	115.10	117.70
14	L	73	GLU	N-CA-CB	5.19	119.95	110.60
5	A	303	G	O4'-C1'-N9	5.19	112.35	108.20
5	A	5	A	C5-C6-N1	-5.19	115.11	117.70
5	A	88	G	C5'-C4'-O4'	5.19	115.33	109.10
5	A	125	A	C5-C6-N1	-5.19	115.11	117.70
5	A	1788	A	O4'-C1'-N9	5.19	112.35	108.20
5	A	2611	G	O4'-C1'-N9	5.19	112.35	108.20
5	A	951	C	N3-C4-C5	-5.19	119.83	121.90
5	A	1511	C	N3-C4-C5	-5.19	119.83	121.90
5	A	2206	C	N3-C4-C5	-5.19	119.83	121.90
5	A	2385	C	N3-C4-C5	-5.19	119.83	121.90
5	A	2635	C	N3-C4-C5	-5.19	119.83	121.90
5	A	2755	U	C6-N1-C1'	-5.19	113.94	121.20
6	B	56	A	C4-C5-C6	5.19	119.59	117.00
5	A	658	A	C5-C6-N6	-5.19	119.55	123.70
5	A	956	A	C4-C5-C6	5.19	119.59	117.00
5	A	1116	A	C5-C6-N6	-5.19	119.55	123.70
5	A	1866	C	P-O3'-C3'	5.19	125.92	119.70
5	A	795	G	P-O3'-C3'	5.18	125.92	119.70
5	A	1474	C	N3-C4-N4	5.18	121.63	118.00
5	A	830	A	C5-C6-N6	-5.18	119.56	123.70
5	A	1426	A	P-O3'-C3'	-5.18	113.48	119.70
5	A	1581	A	C4-C5-C6	5.18	119.59	117.00
5	A	1640	G	O4'-C1'-N9	5.18	112.35	108.20
5	A	1680	A	C5-C6-N6	-5.18	119.55	123.70
5	A	74	U	O4'-C1'-N1	5.18	112.34	108.20
5	A	229	A	C5-C6-N1	-5.18	115.11	117.70
5	A	965	A	C5-C6-N1	-5.18	115.11	117.70
5	A	1577	C	N3-C4-N4	5.18	121.62	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1635	G	O4'-C1'-N9	5.18	112.34	108.20
5	A	2480	A	C4-C5-C6	5.18	119.59	117.00
5	A	187	C	N3-C4-N4	5.18	121.62	118.00
5	A	835	A	C5-C6-N6	-5.18	119.56	123.70
5	A	2786	A	O4'-C1'-N9	5.18	112.34	108.20
5	A	354	A	C4-C5-C6	5.18	119.59	117.00
5	A	496	A	C5-C6-N1	-5.18	115.11	117.70
5	A	936	C	N3-C4-C5	-5.18	119.83	121.90
5	A	971	A	O4'-C1'-N9	5.18	112.34	108.20
5	A	1006	A	P-O5'-C5'	5.18	129.18	120.90
5	A	1714	A	C5-C6-N6	-5.18	119.56	123.70
5	A	2734	A	C5-C6-N1	-5.18	115.11	117.70
5	A	57	C	N3-C4-C5	-5.17	119.83	121.90
5	A	476	A	O4'-C1'-N9	5.17	112.34	108.20
5	A	962	C	N3-C4-C5	-5.17	119.83	121.90
5	A	1031	C	N3-C4-C5	-5.17	119.83	121.90
5	A	1216	C	N3-C4-C5	-5.17	119.83	121.90
5	A	1246	G	C6-C5-N7	-5.17	127.30	130.40
5	A	1251	U	P-O3'-C3'	5.17	125.91	119.70
5	A	1783	C	O4'-C1'-N1	5.17	112.34	108.20
5	A	1876	A	C5-C6-N6	-5.17	119.56	123.70
5	A	2163	A	C4-C5-C6	5.17	119.59	117.00
5	A	2440	A	O4'-C1'-N9	5.17	112.34	108.20
5	A	1778	A	O4'-C1'-N9	5.17	112.34	108.20
5	A	94	A	C5-C6-N1	-5.17	115.11	117.70
5	A	1038	C	N3-C4-N4	5.17	121.62	118.00
5	A	1449	C	C2-N3-C4	5.17	122.49	119.90
5	A	1550	C	C5-C4-N4	-5.17	116.58	120.20
5	A	2532	A	C5-C6-N1	-5.17	115.11	117.70
5	A	2593	A	O4'-C1'-N9	5.17	112.34	108.20
5	A	138	U	C6-N1-C1'	-5.17	113.96	121.20
5	A	265	A	C5-C6-N6	-5.17	119.56	123.70
5	A	618	A	C5-C6-N1	-5.17	115.12	117.70
5	A	665	G	O4'-C1'-N9	5.17	112.33	108.20
5	A	679	A	C5-C6-N6	-5.17	119.56	123.70
5	A	1325	A	C5-C6-N6	-5.17	119.57	123.70
5	A	1967	A	C5-C6-N1	-5.17	115.12	117.70
5	A	2289	C	N3-C4-C5	-5.17	119.83	121.90
5	A	2349	A	C5-C6-N1	-5.17	115.12	117.70
5	A	2640	C	N3-C4-N4	5.17	121.62	118.00
5	A	2740	A	C5-C6-N1	-5.17	115.12	117.70
6	B	17	A	C5-C6-N6	-5.17	119.57	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	789	C	C2-N3-C4	5.17	122.48	119.90
5	A	957	A	C5-C6-N1	-5.17	115.12	117.70
5	A	1070	G	N3-C2-N2	5.17	123.52	119.90
5	A	1310	C	N3-C4-C5	-5.17	119.83	121.90
5	A	1721	A	C5-C6-N1	-5.17	115.12	117.70
5	A	2668	A	C5-C6-N1	-5.17	115.12	117.70
5	A	2679	C	N3-C4-C5	-5.17	119.83	121.90
5	A	1580	A	O4'-C1'-N9	5.17	112.33	108.20
5	A	1655	A	C5-C6-N1	-5.17	115.12	117.70
5	A	2124	A	C5-C6-N6	-5.17	119.57	123.70
5	A	90	A	C5-C6-N6	-5.16	119.57	123.70
5	A	952	A	C4-C5-C6	5.16	119.58	117.00
5	A	1514	C	N3-C4-C5	-5.16	119.83	121.90
5	A	2119	A	O4'-C1'-N9	5.16	112.33	108.20
5	A	2494	C	N3-C4-C5	-5.16	119.83	121.90
6	B	97	A	C5-C6-N6	-5.16	119.57	123.70
5	A	1353	C	P-O5'-C5'	5.16	129.16	120.90
5	A	2501	G	O4'-C1'-N9	5.16	112.33	108.20
5	A	290	U	P-O3'-C3'	5.16	125.89	119.70
5	A	978	A	C5-C6-N6	-5.16	119.57	123.70
5	A	1556	A	O4'-C1'-N9	5.16	112.33	108.20
5	A	2332	G	O4'-C1'-N9	5.16	112.33	108.20
5	A	2404	G	O4'-C1'-N9	5.16	112.33	108.20
5	A	2508	U	P-O5'-C5'	5.16	129.16	120.90
5	A	470	A	O4'-C1'-N9	5.16	112.33	108.20
5	A	836	A	C5-C6-N1	-5.16	115.12	117.70
5	A	1929	A	C5-C6-N6	-5.16	119.57	123.70
5	A	2346	C	N3-C4-C5	-5.16	119.84	121.90
5	A	21	A	O4'-C1'-N9	5.16	112.32	108.20
5	A	125	A	C5-C6-N6	-5.16	119.58	123.70
5	A	150	A	C4'-C3'-C2'	-5.16	97.44	102.60
5	A	349	C	N3-C4-N4	5.16	121.61	118.00
5	A	1360	A	C5-C6-N1	-5.16	115.12	117.70
5	A	1480	A	C5-C6-N6	-5.16	119.58	123.70
5	A	1556	A	P-O5'-C5'	5.15	129.15	120.90
5	A	2742	C	C6-N1-C1'	-5.15	114.61	120.80
5	A	306	C	C2-N3-C4	5.15	122.48	119.90
5	A	323	C	C1'-O4'-C4'	-5.15	105.78	109.90
5	A	343	A	C5-C6-N1	-5.15	115.12	117.70
5	A	486	A	C5-C6-N6	-5.15	119.58	123.70
5	A	740	A	C5-C6-N1	-5.15	115.12	117.70
5	A	1989	A	C5-C6-N6	-5.15	119.58	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	168	A	C5-C6-N1	-5.15	115.12	117.70
5	A	661	A	P-O3'-C3'	5.15	125.88	119.70
5	A	975	C	C6-N1-C2	-5.15	118.24	120.30
5	A	2253	G	O4'-C1'-N9	5.15	112.32	108.20
5	A	2585	C	N3-C4-C5	-5.15	119.84	121.90
5	A	679	A	C5'-C4'-C3'	5.15	124.24	116.00
5	A	2207	C	C5'-C4'-O4'	5.15	115.28	109.10
5	A	2925	C	C6-N1-C2	-5.15	118.24	120.30
5	A	503	C	N3-C4-C5	-5.15	119.84	121.90
5	A	549	A	C5-C6-N1	-5.15	115.13	117.70
5	A	2106	A	C5-C6-N1	-5.15	115.13	117.70
5	A	322	A	C5-C6-N6	-5.15	119.58	123.70
5	A	664	C	N3-C4-C5	-5.15	119.84	121.90
5	A	1392	A	C5-C6-N6	-5.15	119.58	123.70
5	A	326	A	C5-C6-N1	-5.14	115.13	117.70
5	A	758	A	C5-C6-N1	-5.14	115.13	117.70
5	A	1146	C	N3-C4-C5	-5.14	119.84	121.90
5	A	1483	A	O4'-C1'-N9	5.14	112.32	108.20
5	A	2766	G	O4'-C1'-N9	5.14	112.31	108.20
5	A	2844	A	C5-C6-N6	-5.14	119.58	123.70
5	A	173	A	O4'-C1'-N9	5.14	112.31	108.20
5	A	227	G	C5-C6-O6	-5.14	125.52	128.60
5	A	316	G	C5-C6-O6	-5.14	125.51	128.60
5	A	507	A	O4'-C1'-N9	5.14	112.31	108.20
5	A	809	U	O4'-C1'-N1	5.14	112.31	108.20
5	A	932	C	C6-N1-C2	-5.14	118.24	120.30
5	A	1562	A	C5-C6-N1	-5.14	115.13	117.70
5	A	1623	C	C5'-C4'-C3'	-5.14	107.77	116.00
5	A	2912	A	O4'-C1'-N9	5.14	112.31	108.20
5	A	753	A	C5-C6-N1	-5.14	115.13	117.70
5	A	993	A	O4'-C1'-N9	5.14	112.31	108.20
5	A	1185	G	N3-C2-N2	5.14	123.50	119.90
5	A	1808	U	O4'-C1'-N1	5.14	112.31	108.20
5	A	2132	A	C5-C6-N6	-5.14	119.59	123.70
5	A	469	A	O4'-C1'-N9	5.14	112.31	108.20
5	A	1735	A	O4'-C1'-N9	5.14	112.31	108.20
5	A	1986	C	N3-C4-C5	-5.14	119.84	121.90
5	A	2823	C	O4'-C1'-N1	5.14	112.31	108.20
5	A	70	G	O4'-C1'-N9	5.14	112.31	108.20
5	A	122	G	C5'-C4'-C3'	5.14	124.22	116.00
5	A	1999	A	C5-C6-N1	-5.14	115.13	117.70
5	A	2209	U	C2-N1-C1'	5.14	123.86	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2329	A	O4'-C1'-N9	5.13	112.31	108.20
5	A	195	C	N3-C4-C5	-5.13	119.85	121.90
5	A	2230	C	N3-C4-N4	5.13	121.59	118.00
5	A	2602	C	N3-C4-C5	-5.13	119.85	121.90
5	A	586	C	P-O5'-C5'	5.13	129.11	120.90
5	A	689	A	C5-C6-N6	-5.13	119.59	123.70
5	A	751	G	O4'-C1'-N9	5.13	112.31	108.20
5	A	1563	G	O4'-C1'-N9	5.13	112.31	108.20
5	A	1760	A	C5-C6-N1	-5.13	115.14	117.70
5	A	2397	C	P-O5'-C5'	5.13	129.11	120.90
5	A	64	A	C5-C6-N1	-5.13	115.14	117.70
5	A	1054	A	C5-C6-N1	-5.13	115.14	117.70
5	A	1078	A	C5-C6-N6	-5.13	119.60	123.70
5	A	376	A	C5-C6-N1	-5.13	115.14	117.70
5	A	421	A	C5-C6-N1	-5.13	115.14	117.70
5	A	2648	U	P-O5'-C5'	5.13	129.11	120.90
5	A	2719	A	C5-C6-N1	-5.13	115.14	117.70
5	A	431	A	O4'-C1'-N9	5.13	112.30	108.20
5	A	1361	A	C5-C6-N1	-5.13	115.14	117.70
5	A	2427	U	P-O3'-C3'	5.13	125.85	119.70
5	A	2512	C	N3-C4-C5	-5.13	119.85	121.90
5	A	1462	G	N3-C2-N2	5.12	123.49	119.90
5	A	894	A	C5-C6-N1	-5.12	115.14	117.70
10	F	22	TYR	N-CA-CB	5.12	119.82	110.60
5	A	392	C	P-O5'-C5'	5.12	129.09	120.90
5	A	1286	A	O4'-C1'-N9	5.12	112.30	108.20
5	A	1591	G	O4'-C1'-N9	5.12	112.30	108.20
5	A	2153	G	O4'-C1'-N9	5.12	112.30	108.20
5	A	1582	U	O4'-C1'-N1	5.12	112.30	108.20
5	A	1760	A	C4-C5-C6	5.12	119.56	117.00
5	A	2743	G	N3-C2-N2	5.12	123.48	119.90
5	A	12	A	C5-C6-N1	-5.12	115.14	117.70
5	A	705	A	C5-C6-N1	-5.12	115.14	117.70
5	A	43	G	O4'-C1'-N9	5.12	112.29	108.20
5	A	1803	C	N3-C4-C5	-5.12	119.85	121.90
5	A	2351	A	O4'-C1'-N9	5.12	112.29	108.20
5	A	2627	A	C5-C6-N6	-5.12	119.61	123.70
5	A	827	G	N3-C2-N2	5.11	123.48	119.90
5	A	1091	U	O4'-C1'-N1	5.11	112.29	108.20
5	A	1326	A	P-O5'-C5'	5.11	129.08	120.90
5	A	1377	G	O4'-C1'-N9	5.11	112.29	108.20
5	A	1517	A	O4'-C1'-N9	5.11	112.29	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2696	C	N3-C4-N4	5.11	121.58	118.00
1	0	38	LEU	N-CA-C	-5.11	97.20	111.00
5	A	1235	A	C5-C6-N1	-5.11	115.14	117.70
5	A	1710	A	C5-C6-N1	-5.11	115.14	117.70
5	A	1948	A	C5-C6-N6	-5.11	119.61	123.70
5	A	2252	A	C5-C6-N6	-5.11	119.61	123.70
5	A	2472	C	N3-C4-C5	-5.11	119.86	121.90
5	A	659	A	O4'-C1'-N9	5.11	112.29	108.20
6	B	25	A	O4'-C1'-N9	5.11	112.29	108.20
5	A	1254	A	C5-C6-N1	-5.11	115.15	117.70
5	A	1826	C	C5-C4-N4	-5.11	116.62	120.20
5	A	2732	C	N3-C4-C5	-5.11	119.86	121.90
5	A	206	A	O4'-C1'-N9	5.11	112.28	108.20
5	A	484	C	N3-C4-C5	-5.11	119.86	121.90
5	A	990	C	C5'-C4'-O4'	5.11	115.23	109.10
5	A	1046	A	O4'-C1'-N9	5.11	112.28	108.20
5	A	1232	G	O4'-C1'-N9	5.11	112.28	108.20
5	A	1814	A	C5-C6-N1	-5.11	115.15	117.70
5	A	2100	A	O4'-C1'-N9	5.11	112.28	108.20
5	A	843	C	N3-C4-C5	-5.10	119.86	121.90
5	A	1131	A	C5-C6-N1	-5.10	115.15	117.70
5	A	1491	A	C5-C6-N1	-5.10	115.15	117.70
5	A	128	C	N3-C4-C5	-5.10	119.86	121.90
5	A	161	A	C5-C6-N6	-5.10	119.62	123.70
5	A	360	C	N3-C4-C5	-5.10	119.86	121.90
5	A	1549	U	O4'-C1'-N1	5.10	112.28	108.20
5	A	2078	A	O4'-C1'-N9	5.10	112.28	108.20
6	B	117	A	C5-C6-N1	-5.10	115.15	117.70
5	A	1686	A	C5-C6-N6	-5.10	119.62	123.70
5	A	376	A	C5'-C4'-O4'	5.10	115.22	109.10
5	A	376	A	C5-C6-N6	-5.10	119.62	123.70
5	A	731	G	O4'-C1'-N9	5.10	112.28	108.20
5	A	2068	G	N3-C2-N2	5.10	123.47	119.90
5	A	1110	C	N3-C4-N4	5.10	121.57	118.00
5	A	2035	C	N3-C4-C5	-5.10	119.86	121.90
5	A	2793	A	C5-C6-N1	-5.10	115.15	117.70
5	A	868	A	C5'-C4'-C3'	5.10	124.15	116.00
5	A	2267	G	C8-N9-C1'	-5.10	120.38	127.00
5	A	191	G	O4'-C1'-N9	5.09	112.28	108.20
5	A	530	A	C5-C6-N1	-5.09	115.15	117.70
5	A	1784	A	C5-C6-N1	-5.09	115.15	117.70
5	A	2280	G	O4'-C1'-N9	5.09	112.28	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2707	C	N3-C4-C5	-5.09	119.86	121.90
5	A	282	G	O4'-C1'-N9	5.09	112.27	108.20
5	A	1935	G	P-O3'-C3'	5.09	125.81	119.70
5	A	2067	G	O4'-C1'-N9	5.09	112.28	108.20
5	A	2092	C	N3-C4-C5	-5.09	119.86	121.90
5	A	2550	C	C2-N3-C4	5.09	122.45	119.90
5	A	2560	A	C5-C6-N6	-5.09	119.63	123.70
5	A	2840	C	N3-C4-C5	-5.09	119.86	121.90
5	A	6	A	C5-C6-N6	-5.09	119.63	123.70
5	A	1945	A	C5-C6-N1	-5.09	115.16	117.70
5	A	2194	G	O4'-C1'-N9	5.09	112.27	108.20
5	A	2677	G	O4'-C1'-N9	5.09	112.27	108.20
5	A	1334	C	N3-C4-C5	-5.09	119.86	121.90
5	A	1735	A	P-O5'-C5'	5.09	129.04	120.90
5	A	1777	G	O4'-C1'-N9	5.09	112.27	108.20
5	A	2451	C	N3-C4-C5	-5.09	119.86	121.90
5	A	975	C	C2-N1-C1'	5.09	124.40	118.80
5	A	1352	U	C6-N1-C1'	-5.09	114.08	121.20
5	A	2886	C	N3-C4-C5	-5.09	119.86	121.90
5	A	10	A	C5'-C4'-O4'	5.09	115.20	109.10
5	A	946	G	O4'-C1'-N9	5.09	112.27	108.20
5	A	1282	U	C5'-C4'-C3'	-5.09	107.86	116.00
5	A	1584	U	P-O3'-C3'	5.09	125.80	119.70
5	A	1842	C	P-O5'-C5'	5.09	129.04	120.90
5	A	1168	G	C5'-C4'-O4'	5.08	115.20	109.10
5	A	1483	A	P-O3'-C3'	5.08	125.80	119.70
5	A	2916	A	C5-C6-N1	-5.08	115.16	117.70
5	A	65	A	C5-C6-N1	-5.08	115.16	117.70
5	A	513	A	C5-C6-N6	-5.08	119.64	123.70
5	A	1463	C	N3-C4-C5	-5.08	119.87	121.90
5	A	1811	C	P-O3'-C3'	5.08	125.80	119.70
5	A	2084	C	O4'-C1'-N1	5.08	112.27	108.20
5	A	2168	G	O4'-C1'-N9	5.08	112.27	108.20
5	A	756	U	C5'-C4'-O4'	5.08	115.20	109.10
6	B	35	C	N3-C4-C5	-5.08	119.87	121.90
5	A	551	A	C4-C5-C6	5.08	119.54	117.00
5	A	584	A	C5-C6-N6	-5.08	119.64	123.70
5	A	647	A	C5-C6-N1	-5.08	115.16	117.70
5	A	1961	A	C5-C6-N1	-5.08	115.16	117.70
5	A	2525	C	C3'-C2'-C1'	5.08	105.56	101.50
5	A	2724	U	P-O5'-C5'	5.08	129.02	120.90
5	A	1313	A	C5-C6-N1	-5.08	115.16	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	60	C	N3-C4-C5	-5.08	119.87	121.90
5	A	726	C	N3-C4-C5	-5.08	119.87	121.90
5	A	779	C	N3-C4-N4	5.08	121.55	118.00
5	A	977	U	O4'-C1'-N1	5.08	112.26	108.20
5	A	1387	G	O4'-C1'-N9	5.08	112.26	108.20
5	A	2082	G	O4'-C1'-N9	5.08	112.26	108.20
5	A	2850	G	N3-C2-N2	5.08	123.45	119.90
6	B	34	C	N3-C4-C5	-5.08	119.87	121.90
3	5	40	ALA	N-CA-CB	5.07	117.20	110.10
5	A	490	A	C5-C6-N1	-5.07	115.16	117.70
5	A	800	G	P-O3'-C3'	5.07	125.79	119.70
5	A	1605	C	N3-C4-C5	-5.07	119.87	121.90
5	A	2371	C	N3-C4-C5	-5.07	119.87	121.90
5	A	2375	A	C5-C6-N6	-5.07	119.64	123.70
6	B	83	G	O4'-C1'-N9	5.07	112.26	108.20
5	A	985	G	P-O3'-C3'	-5.07	113.61	119.70
5	A	2405	A	O4'-C1'-N9	5.07	112.26	108.20
6	B	89	C	N3-C4-C5	-5.07	119.87	121.90
5	A	1922	C	N3-C4-C5	-5.07	119.87	121.90
5	A	2133	C	N3-C4-C5	-5.07	119.87	121.90
5	A	2526	A	C5-C6-N1	-5.07	115.17	117.70
5	A	2531	G	O4'-C1'-N9	5.07	112.26	108.20
5	A	1771	C	N3-C4-C5	-5.07	119.87	121.90
5	A	434	U	O4'-C1'-N1	5.07	112.25	108.20
5	A	617	G	O4'-C1'-N9	5.07	112.25	108.20
5	A	1384	C	N3-C4-C5	-5.07	119.87	121.90
5	A	1417	A	C4-C5-C6	5.07	119.53	117.00
5	A	2064	G	N3-C2-N2	5.07	123.45	119.90
5	A	2475	G	O4'-C1'-N9	5.07	112.25	108.20
6	B	71	A	C5-N7-C8	5.07	106.43	103.90
5	A	2639	C	O4'-C1'-N1	5.06	112.25	108.20
5	A	1223	C	P-O5'-C5'	5.06	129.00	120.90
5	A	2825	C	N3-C4-C5	-5.06	119.88	121.90
5	A	521	G	O4'-C1'-N9	5.06	112.25	108.20
5	A	811	A	C5-C6-N6	-5.06	119.65	123.70
5	A	1103	A	O4'-C1'-N9	5.06	112.25	108.20
5	A	1344	C	N3-C4-C5	-5.06	119.88	121.90
5	A	1752	G	P-O5'-C5'	5.06	129.00	120.90
5	A	2339	A	C5'-C4'-O4'	5.06	115.17	109.10
5	A	2851	A	O4'-C1'-N9	5.06	112.25	108.20
5	A	1093	G	O4'-C1'-N9	5.06	112.25	108.20
5	A	1251	U	C6-N1-C1'	-5.06	114.12	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	1715	C	P-O5'-C5'	5.06	128.99	120.90
5	A	2149	G	C6-C5-N7	-5.06	127.36	130.40
5	A	2720	C	N3-C4-C5	-5.06	119.88	121.90
5	A	2767	A	O4'-C1'-N9	5.06	112.25	108.20
5	A	346	G	C6-C5-N7	-5.06	127.37	130.40
5	A	1126	A	C5-C6-N1	-5.06	115.17	117.70
5	A	2476	G	O4'-C1'-N9	5.06	112.25	108.20
6	B	69	C	N3-C4-C5	-5.06	119.88	121.90
5	A	426	G	O4'-C1'-N9	5.05	112.24	108.20
5	A	538	A	C5-C6-N6	-5.05	119.66	123.70
5	A	1379	U	O4'-C1'-N1	5.05	112.24	108.20
5	A	2431	U	O4'-C1'-N1	5.05	112.24	108.20
5	A	2475	G	P-O5'-C5'	-5.05	112.81	120.90
5	A	2708	A	C5-C6-N6	-5.05	119.66	123.70
5	A	2925	C	C2-N1-C1'	5.05	124.36	118.80
5	A	40	U	P-O3'-C3'	-5.05	113.64	119.70
5	A	418	A	C5-C6-N1	-5.05	115.17	117.70
5	A	1021	A	C5-C6-N6	-5.05	119.66	123.70
5	A	1496	G	O4'-C1'-N9	5.05	112.24	108.20
5	A	1579	A	C4-C5-C6	5.05	119.53	117.00
5	A	2395	A	C5-C6-N1	-5.05	115.17	117.70
5	A	1508	C	C5-C4-N4	-5.05	116.67	120.20
5	A	2032	A	C5-C6-N1	-5.05	115.17	117.70
5	A	2101	G	O4'-C1'-N9	5.05	112.24	108.20
5	A	2710	C	N3-C4-C5	-5.05	119.88	121.90
5	A	2793	A	C5-C6-N6	-5.05	119.66	123.70
5	A	849	A	C5-C6-N1	-5.05	115.18	117.70
5	A	2007	A	P-O3'-C3'	5.05	125.76	119.70
5	A	1308	A	C5-C6-N1	-5.05	115.18	117.70
5	A	1581	A	O4'-C1'-C2'	-5.05	100.75	105.80
5	A	2497	A	C5-C6-N1	-5.05	115.18	117.70
5	A	1547	U	P-O3'-C3'	5.04	125.75	119.70
5	A	187	C	N3-C4-C5	-5.04	119.88	121.90
5	A	679	A	P-O3'-C3'	5.04	125.75	119.70
5	A	1082	G	O4'-C1'-N9	5.04	112.23	108.20
5	A	2335	U	P-O3'-C3'	5.04	125.75	119.70
5	A	2383	A	O4'-C1'-N9	5.04	112.23	108.20
5	A	210	A	O4'-C1'-N9	5.04	112.23	108.20
5	A	358	C	N3-C4-C5	-5.04	119.89	121.90
5	A	726	C	N3-C4-N4	5.04	121.53	118.00
5	A	830	A	O4'-C1'-N9	5.04	112.23	108.20
5	A	1189	A	C4-C5-C6	5.04	119.52	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	2730	U	P-O3'-C3'	5.04	125.75	119.70
5	A	1024	G	O4'-C1'-N9	5.04	112.23	108.20
5	A	1096	A	C5-C6-N1	-5.04	115.18	117.70
5	A	876	A	C5-C6-N1	-5.04	115.18	117.70
5	A	1066	A	C5'-C4'-O4'	5.04	115.14	109.10
5	A	1499	A	C5-C6-N6	-5.04	119.67	123.70
5	A	1772	C	P-O5'-C5'	5.04	128.96	120.90
6	B	23	U	O4'-C1'-N1	5.04	112.23	108.20
5	A	20	C	P-O5'-C5'	5.03	128.96	120.90
5	A	397	U	O4'-C1'-N1	5.03	112.23	108.20
5	A	1288	G	O4'-C1'-N9	5.03	112.23	108.20
5	A	1390	C	N3-C4-N4	5.03	121.52	118.00
5	A	1025	A	C5-C6-N1	-5.03	115.18	117.70
5	A	2686	A	C5-C6-N1	-5.03	115.18	117.70
5	A	555	C	N3-C4-C5	-5.03	119.89	121.90
5	A	1241	C	C6-N1-C2	-5.03	118.29	120.30
5	A	1260	A	O4'-C1'-N9	5.03	112.22	108.20
5	A	1042	A	C5-C6-N6	-5.03	119.68	123.70
5	A	2854	A	C5-C6-N6	-5.03	119.68	123.70
5	A	232	U	C2-N1-C1'	5.03	123.73	117.70
5	A	1336	C	N3-C4-C5	-5.03	119.89	121.90
5	A	563	C	N3-C4-C5	-5.03	119.89	121.90
5	A	768	G	C6-C5-N7	-5.03	127.39	130.40
5	A	1519	C	N3-C4-N4	5.03	121.52	118.00
5	A	1541	A	C5-C6-N6	-5.03	119.68	123.70
6	B	76	A	O4'-C1'-N9	5.03	112.22	108.20
5	A	213	C	P-O5'-C5'	5.02	128.94	120.90
5	A	2918	G	C4-N9-C1'	5.02	133.03	126.50
5	A	376	A	C1'-O4'-C4'	-5.02	105.88	109.90
5	A	377	G	O4'-C1'-N9	5.02	112.22	108.20
5	A	716	G	P-O3'-C3'	5.02	125.73	119.70
5	A	880	C	O4'-C1'-N1	5.02	112.22	108.20
5	A	1999	A	O4'-C1'-N9	5.02	112.22	108.20
5	A	2914	C	N3-C4-C5	-5.02	119.89	121.90
5	A	868	A	O5'-C5'-C4'	5.02	121.24	111.70
5	A	2407	A	O4'-C1'-N9	5.02	112.22	108.20
5	A	623	A	O4'-C1'-N9	5.02	112.22	108.20
5	A	1117	G	O4'-C1'-N9	5.02	112.22	108.20
5	A	1347	A	C5-C6-N1	-5.02	115.19	117.70
5	A	2330	A	C5-C6-N6	-5.02	119.68	123.70
6	B	67	G	O4'-C1'-N9	5.02	112.22	108.20
5	A	382	G	O4'-C1'-N9	5.02	112.21	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	A	479	A	C5-C6-N1	-5.02	115.19	117.70
5	A	1861	C	N3-C4-C5	-5.02	119.89	121.90
5	A	2304	C	N3-C4-N4	5.02	121.51	118.00
5	A	2619	A	O4'-C1'-N9	5.02	112.22	108.20
5	A	2719	A	C8-N9-C4	-5.02	103.79	105.80
5	A	55	G	C5'-C4'-O4'	5.02	115.12	109.10
5	A	1175	A	C5-C6-N6	-5.01	119.69	123.70
5	A	1728	C	N3-C4-C5	-5.01	119.89	121.90
5	A	2049	A	C5-C6-N1	-5.01	115.19	117.70
5	A	2238	C	N3-C4-C5	-5.01	119.89	121.90
5	A	2893	A	C5-C6-N6	-5.01	119.69	123.70
5	A	1877	A	C5-C6-N1	-5.01	115.19	117.70
5	A	180	G	O4'-C1'-N9	5.01	112.21	108.20
5	A	220	A	C5-C6-N1	-5.01	115.19	117.70
6	B	42	G	O4'-C1'-N9	5.01	112.21	108.20
5	A	1204	C	N3-C4-C5	-5.01	119.90	121.90
5	A	1683	C	N3-C4-C5	-5.01	119.90	121.90
5	A	1877	A	C5-C6-N6	-5.01	119.69	123.70
5	A	2542	A	C5-C6-N6	-5.01	119.69	123.70
5	A	2777	A	C5-C6-N6	-5.01	119.69	123.70
5	A	821	A	C5-C6-N1	-5.00	115.20	117.70
5	A	1471	G	C6-C5-N7	-5.00	127.40	130.40
5	A	2037	C	N3-C4-C5	-5.00	119.90	121.90
5	A	2227	A	C5-C6-N1	-5.00	115.20	117.70
5	A	219	A	C5-C6-N6	-5.00	119.70	123.70
5	A	1075	A	C5-C6-N6	-5.00	119.70	123.70
5	A	1276	G	N1-C2-N2	-5.00	111.70	116.20
5	A	2079	C	N3-C4-C5	-5.00	119.90	121.90

There are no chirality outliers.

All (474) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
5	A	1005	A	Sidechain
5	A	1009	U	Sidechain
5	A	1022	G	Sidechain
5	A	1024	G	Sidechain
5	A	1043	G	Sidechain
5	A	1047	A	Sidechain
5	A	1051	C	Sidechain
5	A	1056	A	Sidechain
5	A	106	G	Sidechain

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Mol	Chain	Res	Type	Group
5	A	1064	U	Sidechain
5	A	1066	A	Sidechain
5	A	1068	G	Sidechain
5	A	1069	U	Sidechain
5	A	1074	A	Sidechain
5	A	1075	A	Sidechain
5	A	1102	G	Sidechain
5	A	1103	A	Sidechain
5	A	1105	G	Sidechain
5	A	1117	G	Sidechain
5	A	113	U	Sidechain
5	A	1135	G	Sidechain
5	A	1140	U	Sidechain
5	A	1142	A	Sidechain
5	A	1145	G	Sidechain
5	A	1146	C	Sidechain
5	A	116	G	Sidechain
5	A	1171	G	Sidechain
5	A	1172	A	Sidechain
5	A	118	A	Sidechain
5	A	1184	G	Sidechain
5	A	1187	U	Sidechain
5	A	1195	U	Sidechain
5	A	1205	U	Sidechain
5	A	1210	A	Sidechain
5	A	1212	U	Sidechain
5	A	1214	U	Sidechain
5	A	1216	C	Sidechain
5	A	1217	U	Sidechain
5	A	1236	G	Sidechain
5	A	1241	C	Sidechain
5	A	1244	A	Sidechain
5	A	1245	G	Sidechain
5	A	1246	G	Sidechain
5	A	1251	U	Sidechain
5	A	1263	G	Sidechain
5	A	1267	G	Sidechain
5	A	1276	G	Sidechain
5	A	1277	A	Sidechain
5	A	1278	G	Sidechain
5	A	1280	G	Sidechain
5	A	1281	C	Sidechain

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Mol	Chain	Res	Type	Group
5	A	1283	U	Sidechain
5	A	1311	G	Sidechain
5	A	132	C	Sidechain
5	A	1323	A	Sidechain
5	A	1331	C	Sidechain
5	A	1338	G	Sidechain
5	A	1350	U	Sidechain
5	A	1353	C	Sidechain
5	A	1359	G	Sidechain
5	A	1361	A	Sidechain
5	A	1363	G	Sidechain
5	A	1369	C	Sidechain
5	A	1370	C	Sidechain
5	A	1389	C	Sidechain
5	A	1390	C	Sidechain
5	A	1391	U	Sidechain
5	A	1394	G	Sidechain
5	A	14	A	Sidechain
5	A	1427	G	Sidechain
5	A	1428	G	Sidechain
5	A	1429	U	Sidechain
5	A	143	G	Sidechain
5	A	1431	G	Sidechain
5	A	1432	A	Sidechain
5	A	1433	U	Sidechain
5	A	144	A	Sidechain
5	A	1449	C	Sidechain
5	A	145	G	Sidechain
5	A	1451	U	Sidechain
5	A	1460	G	Sidechain
5	A	1471	G	Sidechain
5	A	1478	G	Sidechain
5	A	1479	G	Sidechain
5	A	1492	G	Sidechain
5	A	1493	C	Sidechain
5	A	1494	G	Sidechain
5	A	1495	C	Sidechain
5	A	1499	A	Sidechain
5	A	15	G	Sidechain
5	A	1503	G	Sidechain
5	A	1508	C	Sidechain
5	A	151	U	Sidechain

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Mol	Chain	Res	Type	Group
5	A	1511	C	Sidechain
5	A	1519	C	Sidechain
5	A	1521	G	Sidechain
5	A	1525	G	Sidechain
5	A	153	C	Sidechain
5	A	1538	G	Sidechain
5	A	1542	A	Sidechain
5	A	1547	U	Sidechain
5	A	1551	C	Sidechain
5	A	1561	G	Sidechain
5	A	1567	U	Sidechain
5	A	1574	G	Sidechain
5	A	1575	A	Sidechain
5	A	1576	G	Sidechain
5	A	1577	C	Sidechain
5	A	1580	A	Sidechain
5	A	1581	A	Sidechain
5	A	1586	G	Sidechain
5	A	1587	U	Sidechain
5	A	1588	A	Sidechain
5	A	1590	C	Sidechain
5	A	1591	G	Sidechain
5	A	1596	U	Sidechain
5	A	1603	U	Sidechain
5	A	1604	C	Sidechain
5	A	1605	C	Sidechain
5	A	1606	A	Sidechain
5	A	1610	U	Sidechain
5	A	1616	G	Sidechain
5	A	1617	A	Sidechain
5	A	1625	C	Sidechain
5	A	1626	U	Sidechain
5	A	1627	A	Sidechain
5	A	163	U	Sidechain
5	A	1632	G	Sidechain
5	A	1636	A	Sidechain
5	A	1637	G	Sidechain
5	A	1642	G	Sidechain
5	A	1650	C	Sidechain
5	A	1658	G	Sidechain
5	A	1674	G	Sidechain
5	A	1676	G	Sidechain

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Mol	Chain	Res	Type	Group
5	A	1708	U	Sidechain
5	A	1711	G	Sidechain
5	A	1713	A	Sidechain
5	A	1714	A	Sidechain
5	A	1726	G	Sidechain
5	A	1730	C	Sidechain
5	A	1732	G	Sidechain
5	A	1737	U	Sidechain
5	A	1738	U	Sidechain
5	A	1741	G	Sidechain
5	A	1754	U	Sidechain
5	A	1764	U	Sidechain
5	A	178	A	Sidechain
5	A	1782	G	Sidechain
5	A	1783	C	Sidechain
5	A	1784	A	Sidechain
5	A	1815	A	Sidechain
5	A	1821	G	Sidechain
5	A	1846	G	Sidechain
5	A	1852	G	Sidechain
5	A	1857	G	Sidechain
5	A	1859	C	Sidechain
5	A	1873	U	Sidechain
5	A	1923	C	Sidechain
5	A	1929	A	Sidechain
5	A	1932	G	Sidechain
5	A	1935	G	Sidechain
5	A	1944	U	Sidechain
5	A	1958	G	Sidechain
5	A	1960	U	Sidechain
5	A	1969	U	Sidechain
5	A	1993	G	Sidechain
5	A	2013	U	Sidechain
5	A	2027	A	Sidechain
5	A	2034	A	Sidechain
5	A	2058	G	Sidechain
5	A	2064	G	Sidechain
5	A	209	U	Sidechain
5	A	210	A	Sidechain
5	A	2116	G	Sidechain
5	A	213	C	Sidechain
5	A	2131	U	Sidechain

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Mol	Chain	Res	Type	Group
5	A	2134	A	Sidechain
5	A	2139	G	Sidechain
5	A	2142	C	Sidechain
5	A	215	G	Sidechain
5	A	2156	G	Sidechain
5	A	2157	C	Sidechain
5	A	2169	G	Sidechain
5	A	2173	G	Sidechain
5	A	2176	A	Sidechain
5	A	2183	G	Sidechain
5	A	2189	G	Sidechain
5	A	2194	G	Sidechain
5	A	2195	G	Sidechain
5	A	2209	U	Sidechain
5	A	2214	G	Sidechain
5	A	2215	U	Sidechain
5	A	2249	G	Sidechain
5	A	2254	A	Sidechain
5	A	229	A	Sidechain
5	A	2294	U	Sidechain
5	A	230	A	Sidechain
5	A	2316	A	Sidechain
5	A	2317	A	Sidechain
5	A	2318	G	Sidechain
5	A	2321	U	Sidechain
5	A	2332	G	Sidechain
5	A	2333	G	Sidechain
5	A	2334	U	Sidechain
5	A	2340	A	Sidechain
5	A	2342	C	Sidechain
5	A	235	G	Sidechain
5	A	2362	A	Sidechain
5	A	2373	U	Sidechain
5	A	2374	G	Sidechain
5	A	2377	U	Sidechain
5	A	2384	C	Sidechain
5	A	2386	U	Sidechain
5	A	2388	C	Sidechain
5	A	2391	G	Sidechain
5	A	241	C	Sidechain
5	A	2415	U	Sidechain
5	A	2419	U	Sidechain

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Mol	Chain	Res	Type	Group
5	A	243	G	Sidechain
5	A	2434	G	Sidechain
5	A	2436	A	Sidechain
5	A	2440	A	Sidechain
5	A	2442	G	Sidechain
5	A	2456	C	Sidechain
5	A	246	U	Sidechain
5	A	2483	G	Sidechain
5	A	2484	G	Sidechain
5	A	2491	U	Sidechain
5	A	2499	G	Sidechain
5	A	2505	A	Sidechain
5	A	2510	G	Sidechain
5	A	2518	G	Sidechain
5	A	2519	G	Sidechain
5	A	2523	G	Sidechain
5	A	2527	C	Sidechain
5	A	2534	G	Sidechain
5	A	2540	U	Sidechain
5	A	2558	G	Sidechain
5	A	2559	U	Sidechain
5	A	2563	C	Sidechain
5	A	2564	A	Sidechain
5	A	257	G	Sidechain
5	A	2581	U	Sidechain
5	A	2606	A	Sidechain
5	A	2611	G	Sidechain
5	A	2612	G	Sidechain
5	A	2626	G	Sidechain
5	A	2627	A	Sidechain
5	A	2656	G	Sidechain
5	A	2675	C	Sidechain
5	A	2682	U	Sidechain
5	A	269	G	Sidechain
5	A	2694	A	Sidechain
5	A	27	G	Sidechain
5	A	2710	C	Sidechain
5	A	2717	G	Sidechain
5	A	2720	C	Sidechain
5	A	2723	G	Sidechain
5	A	2725	U	Sidechain
5	A	2732	C	Sidechain

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Mol	Chain	Res	Type	Group
5	A	2737	G	Sidechain
5	A	2743	G	Sidechain
5	A	2744	C	Sidechain
5	A	2748	G	Sidechain
5	A	2749	U	Sidechain
5	A	275	A	Sidechain
5	A	2750	A	Sidechain
5	A	2753	U	Sidechain
5	A	2756	G	Sidechain
5	A	2760	G	Sidechain
5	A	2761	G	Sidechain
5	A	2764	G	Sidechain
5	A	2771	G	Sidechain
5	A	2778	A	Sidechain
5	A	2783	U	Sidechain
5	A	28	A	Sidechain
5	A	2811	G	Sidechain
5	A	2822	C	Sidechain
5	A	2829	G	Sidechain
5	A	2832	G	Sidechain
5	A	2833	U	Sidechain
5	A	2834	A	Sidechain
5	A	2861	U	Sidechain
5	A	2864	G	Sidechain
5	A	2867	U	Sidechain
5	A	2878	U	Sidechain
5	A	2879	G	Sidechain
5	A	288	C	Sidechain
5	A	2884	G	Sidechain
5	A	2885	A	Sidechain
5	A	2891	G	Sidechain
5	A	2897	G	Sidechain
5	A	290	U	Sidechain
5	A	2906	U	Sidechain
5	A	2907	A	Sidechain
5	A	2908	A	Sidechain
5	A	2910	C	Sidechain
5	A	2912	A	Sidechain
5	A	2915	G	Sidechain
5	A	2917	G	Sidechain
5	A	2922	U	Sidechain
5	A	2925	C	Sidechain

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Mol	Chain	Res	Type	Group
5	A	2926	C	Sidechain
5	A	296	G	Sidechain
5	A	298	U	Sidechain
5	A	3	U	Sidechain
5	A	31	C	Sidechain
5	A	312	G	Sidechain
5	A	316	G	Sidechain
5	A	33	U	Sidechain
5	A	34	U	Sidechain
5	A	342	A	Sidechain
5	A	343	A	Sidechain
5	A	344	G	Sidechain
5	A	346	G	Sidechain
5	A	347	G	Sidechain
5	A	349	C	Sidechain
5	A	350	U	Sidechain
5	A	351	G	Sidechain
5	A	354	A	Sidechain
5	A	357	G	Sidechain
5	A	358	C	Sidechain
5	A	36	G	Sidechain
5	A	367	G	Sidechain
5	A	37	C	Sidechain
5	A	377	G	Sidechain
5	A	385	G	Sidechain
5	A	399	C	Sidechain
5	A	40	U	Sidechain
5	A	404	C	Sidechain
5	A	410	G	Sidechain
5	A	414	C	Sidechain
5	A	42	G	Sidechain
5	A	434	U	Sidechain
5	A	441	C	Sidechain
5	A	442	C	Sidechain
5	A	443	G	Sidechain
5	A	480	C	Sidechain
5	A	481	U	Sidechain
5	A	483	C	Sidechain
5	A	494	A	Sidechain
5	A	496	A	Sidechain
5	A	504	A	Sidechain
5	A	510	G	Sidechain

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Mol	Chain	Res	Type	Group
5	A	512	G	Sidechain
5	A	514	G	Sidechain
5	A	519	A	Sidechain
5	A	520	G	Sidechain
5	A	527	A	Sidechain
5	A	530	A	Sidechain
5	A	535	G	Sidechain
5	A	540	G	Sidechain
5	A	541	G	Sidechain
5	A	546	G	Sidechain
5	A	573	C	Sidechain
5	A	575	A	Sidechain
5	A	583	G	Sidechain
5	A	587	C	Sidechain
5	A	59	G	Sidechain
5	A	591	U	Sidechain
5	A	597	G	Sidechain
5	A	598	U	Sidechain
5	A	599	G	Sidechain
5	A	605	G	Sidechain
5	A	613	U	Sidechain
5	A	614	G	Sidechain
5	A	629	G	Sidechain
5	A	63	G	Sidechain
5	A	631	G	Sidechain
5	A	644	G	Sidechain
5	A	645	C	Sidechain
5	A	646	A	Sidechain
5	A	65	A	Sidechain
5	A	651	U	Sidechain
5	A	665	G	Sidechain
5	A	668	G	Sidechain
5	A	67	A	Sidechain
5	A	674	G	Sidechain
5	A	676	G	Sidechain
5	A	678	A	Sidechain
5	A	680	G	Sidechain
5	A	696	C	Sidechain
5	A	704	U	Sidechain
5	A	720	C	Sidechain
5	A	729	G	Sidechain
5	A	73	A	Sidechain

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Mol	Chain	Res	Type	Group
5	A	732	A	Sidechain
5	A	735	U	Sidechain
5	A	74	U	Sidechain
5	A	745	C	Sidechain
5	A	757	C	Sidechain
5	A	758	A	Sidechain
5	A	759	G	Sidechain
5	A	760	G	Sidechain
5	A	767	U	Sidechain
5	A	768	G	Sidechain
5	A	771	U	Sidechain
5	A	772	G	Sidechain
5	A	773	G	Sidechain
5	A	775	G	Sidechain
5	A	784	C	Sidechain
5	A	796	A	Sidechain
5	A	802	G	Sidechain
5	A	804	G	Sidechain
5	A	81	G	Sidechain
5	A	823	G	Sidechain
5	A	825	G	Sidechain
5	A	83	G	Sidechain
5	A	850	U	Sidechain
5	A	855	G	Sidechain
5	A	858	U	Sidechain
5	A	871	G	Sidechain
5	A	878	G	Sidechain
5	A	88	G	Sidechain
5	A	881	U	Sidechain
5	A	89	U	Sidechain
5	A	892	U	Sidechain
5	A	894	A	Sidechain
5	A	895	G	Sidechain
5	A	897	G	Sidechain
5	A	900	U	Sidechain
5	A	903	G	Sidechain
5	A	905	G	Sidechain
5	A	911	G	Sidechain
5	A	912	C	Sidechain
5	A	918	U	Sidechain
5	A	923	C	Sidechain
5	A	924	U	Sidechain

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Mol	Chain	Res	Type	Group
5	A	930	C	Sidechain
5	A	934	U	Sidechain
5	A	939	G	Sidechain
5	A	940	G	Sidechain
5	A	941	U	Sidechain
5	A	942	U	Sidechain
5	A	944	C	Sidechain
5	A	945	C	Sidechain
5	A	946	G	Sidechain
5	A	948	A	Sidechain
5	A	960	U	Sidechain
5	A	967	G	Sidechain
5	A	969	C	Sidechain
5	A	970	A	Sidechain
5	A	972	U	Sidechain
5	A	975	C	Sidechain
5	A	987	A	Sidechain
5	A	988	G	Sidechain
6	B	10	G	Sidechain
6	B	106	C	Sidechain
6	B	108	C	Sidechain
6	B	109	C	Sidechain
6	B	16	G	Sidechain
6	B	22	G	Sidechain
6	B	31	G	Sidechain
6	B	33	U	Sidechain
6	B	38	U	Sidechain
6	B	4	G	Sidechain
6	B	45	C	Sidechain
6	B	51	A	Sidechain
6	B	74	G	Sidechain
6	B	8	G	Sidechain
6	B	84	G	Sidechain
8	D	139	TYR	Sidechain
8	D	150	ASP	Peptide
9	E	14	ALA	Peptide
14	L	55	MET	Peptide
14	L	69	ILE	Peptide
15	N	4	ARG	Sidechain
17	P	17	LEU	Peptide
17	P	51	ARG	Sidechain
17	P	99	TYR	Sidechain

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Mol	Chain	Res	Type	Group
21	T	61	GLY	Peptide
21	T	62	LYS	Peptide
21	T	87	SER	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	0	433	0	454	0	0
2	2	368	0	410	0	0
3	5	910	0	944	2	0
4	6	1044	0	1098	1	0
5	A	61914	0	31166	148	0
6	B	2542	0	1288	6	0
7	C	2129	0	2225	0	0
8	D	1568	0	1635	2	0
9	E	1567	0	1652	3	0
10	F	1413	0	1479	2	0
11	G	1246	0	1273	0	0
12	J	1134	0	1178	3	0
13	K	921	0	977	0	0
14	L	1082	0	1132	3	0
15	N	962	0	995	0	0
16	O	913	0	947	4	0
17	P	916	0	987	2	0
18	Q	940	0	1005	1	0
19	R	795	0	838	0	0
20	S	868	0	930	0	0
21	T	767	0	813	0	0
22	U	780	0	838	1	0
23	X	504	0	541	0	0
24	Y	441	0	478	0	0
All	All	86157	0	55283	174	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 1.

All (174) 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)
5:A:1799:G:H1	5:A:2011:U:H3	1.32	0.76
5:A:2557:U:H3	5:A:2564:A:H61	1.39	0.68
5:A:1672:A:H61	5:A:1684:U:H3	1.43	0.65
5:A:1339:A:C2	5:A:1679:A:C2	2.87	0.62
5:A:1976:C:H2'	5:A:1977:G:H5''	1.80	0.62
5:A:1938:C:H42	5:A:1950:G:H1	1.47	0.61
5:A:905:G:H22	5:A:966:U:H3	1.48	0.61
5:A:750:U:H3	5:A:775:G:H1	1.48	0.60
5:A:162:A:H3'	5:A:163:U:H5''	1.85	0.58
5:A:336:U:H3	5:A:391:A:H61	1.50	0.58
5:A:1070:G:H3'	5:A:1071:G:H5''	1.85	0.58
5:A:13:A:H62	5:A:571:U:H2'	1.69	0.57
5:A:1339:A:N1	5:A:1679:A:N1	2.51	0.57
5:A:321:U:H3'	5:A:322:A:H5''	1.87	0.56
5:A:1449:C:C6	5:A:1449:C:H5'	2.41	0.56
5:A:719:C:H2'	5:A:720:C:H5''	1.88	0.55
5:A:674:G:H2'	5:A:675:C:H5''	1.87	0.55
5:A:2859:G:H2'	5:A:2904:A:H61	1.70	0.55
5:A:2157:C:H42	5:A:2189:G:H1	1.55	0.55
5:A:898:U:H3	5:A:973:G:H1	1.55	0.54
5:A:2859:G:H1'	5:A:2908:A:H61	1.72	0.54
5:A:2500:A:C2	5:A:2509:C:C2	2.96	0.54
8:D:74:THR:HG22	8:D:75:ALA:H	1.72	0.53
5:A:924:U:H3	5:A:946:G:H22	1.56	0.53
5:A:2681:U:H3	5:A:2697:G:H1	1.55	0.53
5:A:719:C:C2'	5:A:720:C:H5''	2.38	0.53
5:A:1578:G:N1	5:A:1588:A:C2	2.77	0.52
5:A:451:C:H4'	5:A:452:C:H5'	1.92	0.52
5:A:1759:U:H3	5:A:1773:G:H22	1.57	0.52
5:A:1461:A:H61	5:A:1625:C:H3'	1.75	0.51
5:A:2543:U:H3	5:A:2599:G:H1	1.59	0.51
5:A:674:G:C2'	5:A:675:C:H5''	2.41	0.51
3:5:42:VAL:HG23	3:5:178:VAL:HB	1.93	0.50
6:B:37:A:H2'	6:B:38:U:C6	2.46	0.50
5:A:2196:U:H3	5:A:2200:A:H62	1.58	0.50
5:A:2858:U:H3'	5:A:2859:G:H5''	1.94	0.49
5:A:1647:U:H3'	5:A:1648:A:H5'	1.93	0.49
5:A:2856:G:H3'	5:A:2858:U:H3	1.76	0.49
5:A:584:A:C2	5:A:585:G:C5	3.01	0.49
5:A:2552:G:H2'	5:A:2553:G:H5''	1.93	0.49
5:A:1525:G:H21	5:A:1605:C:H4'	1.78	0.49
5:A:2862:A:H61	5:A:2906:U:H3	1.59	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:U:100:VAL:HG13	22:U:102:ASP:H	1.78	0.49
5:A:944:C:C4	5:A:945:C:C5	3.01	0.48
5:A:1574:G:H2'	5:A:1575:A:C2	2.48	0.48
5:A:1761:G:H3'	5:A:1762:G:C5'	2.43	0.48
5:A:45:G:H2'	5:A:218:G:C8	2.48	0.48
5:A:1530:G:H3'	5:A:1531:G:H5''	1.94	0.48
5:A:1970:C:H41	5:A:1992:C:H41	1.62	0.48
5:A:2123:A:H61	5:A:2224:U:H3	1.60	0.48
5:A:2341:U:H2'	5:A:2342:C:H5''	1.94	0.48
5:A:924:U:H2'	5:A:925:A:H5''	1.96	0.48
5:A:1976:C:C2'	5:A:1977:G:H5''	2.44	0.47
5:A:947:A:H3'	5:A:948:A:C8	2.49	0.47
5:A:1579:A:C2	5:A:1588:A:C2	3.02	0.47
5:A:760:G:H22	5:A:764:C:H5''	1.80	0.47
16:O:103:HIS:CD2	16:O:104:GLY:H	2.32	0.47
6:B:107:G:C5	6:B:108:C:C4	3.03	0.46
14:L:2:LYS:HG3	14:L:4:HIS:H	1.80	0.46
5:A:269:G:H2'	5:A:270:C:H5''	1.98	0.46
5:A:1276:G:N2	5:A:1277:A:H62	2.14	0.45
5:A:2482:A:C2	5:A:2533:U:N3	2.84	0.45
5:A:67:A:N1	5:A:74:U:C5	2.85	0.45
16:O:103:HIS:CG	16:O:104:GLY:N	2.85	0.45
16:O:63:LEU:H	16:O:63:LEU:HD13	1.81	0.45
10:F:175:MET:H	10:F:176:PRO:HD2	1.82	0.45
5:A:2730:U:H3	5:A:2735:A:H61	1.64	0.45
5:A:1627:A:H3'	5:A:1628:G:C8	2.52	0.45
5:A:321:U:H3'	5:A:322:A:C5'	2.45	0.45
5:A:1110:C:H3'	5:A:1111:U:H5''	1.98	0.45
5:A:1021:A:H3'	5:A:1022:G:H5''	1.99	0.44
5:A:19:G:C6	5:A:568:G:C6	3.05	0.44
5:A:767:U:C5	5:A:768:G:C8	3.04	0.44
5:A:1076:G:H21	5:A:2495:C:H4'	1.81	0.44
5:A:1867:C:H5''	5:A:1928:A:H61	1.82	0.44
5:A:1992:C:H3'	5:A:1993:G:C5'	2.47	0.44
5:A:42:G:C8	5:A:42:G:H5'	2.53	0.44
5:A:2904:A:C2	5:A:2907:A:N6	2.86	0.44
5:A:242:U:H3	5:A:261:C:H42	1.65	0.44
12:J:57:ILE:H	12:J:57:ILE:HD13	1.82	0.44
5:A:342:A:N6	5:A:382:G:H1	2.15	0.44
5:A:400:U:H1'	5:A:401:C:H5''	1.99	0.44
5:A:1339:A:C6	5:A:1679:A:C6	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A:1676:G:H2'	5:A:1677:A:H5'	2.00	0.44
5:A:518:A:H2'	5:A:519:A:H5''	2.00	0.44
4:6:12:GLN:HE21	5:A:1114:G:H5'	1.83	0.43
5:A:855:G:H21	9:E:74:ARG:HB3	1.83	0.43
5:A:902:G:C2	5:A:970:A:C2	3.06	0.43
5:A:2144:G:H21	5:A:2148:A:H8	1.66	0.43
5:A:340:U:H3	5:A:385:G:H1	1.66	0.43
5:A:777:C:H2'	5:A:778:C:C6	2.53	0.43
5:A:1488:G:H1	5:A:1597:C:H42	1.64	0.43
5:A:2715:G:C5	5:A:2716:U:C4	3.06	0.43
5:A:1214:U:C4	5:A:1215:U:C4	3.07	0.43
5:A:2179:U:H2'	5:A:2180:U:C6	2.53	0.43
5:A:2716:U:C5	5:A:2717:G:C6	3.06	0.43
17:P:84:ILE:HG23	17:P:86:VAL:H	1.83	0.43
5:A:695:G:C2	5:A:696:C:C2	3.06	0.43
5:A:925:A:H61	5:A:945:C:H42	1.66	0.43
5:A:1517:A:H2'	5:A:1568:G:C2	2.53	0.43
5:A:1710:A:C3'	5:A:1711:G:H5''	2.49	0.43
5:A:65:A:H61	5:A:89:U:H3	1.67	0.43
5:A:568:G:C6	5:A:569:C:C4	3.07	0.43
5:A:1472:G:H2'	5:A:1473:A:C8	2.53	0.43
5:A:78:U:H3	5:A:107:G:H1	1.65	0.43
5:A:198:A:H61	5:A:201:C:H3'	1.84	0.43
5:A:1673:G:H2'	5:A:1674:G:C8	2.54	0.43
6:B:22:G:H21	6:B:25:A:H2	1.65	0.43
5:A:30:G:C5	5:A:31:C:C4	3.07	0.42
5:A:584:A:C2	5:A:599:G:N1	2.87	0.42
5:A:902:G:C6	5:A:903:G:C6	3.07	0.42
5:A:1067:A:C8	5:A:1067:A:H3'	2.54	0.42
5:A:1367:G:HO2'	5:A:1367:G:H8	1.67	0.42
5:A:2216:A:H2'	5:A:2217:U:H5'	2.01	0.42
9:E:126:LEU:HG	9:E:128:ASP:H	1.84	0.42
5:A:519:A:H5'	5:A:519:A:H8	1.84	0.42
5:A:26:G:C5	5:A:27:G:C6	3.07	0.42
5:A:788:G:H2'	5:A:789:C:C6	2.54	0.42
14:L:105:LEU:HG	14:L:107:ALA:H	1.84	0.42
5:A:703:G:H1'	5:A:704:U:H5	1.84	0.42
5:A:972:U:H2'	5:A:973:G:H5''	2.02	0.42
5:A:1263:G:H2'	5:A:1264:G:H5''	2.01	0.42
12:J:102:LEU:HD12	12:J:102:LEU:H	1.85	0.42
5:A:1579:A:C2	5:A:1588:A:H2	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A:2214:G:C6	5:A:2215:U:C4	3.08	0.42
10:F:70:ALA:HB3	10:F:82:GLY:H	1.85	0.42
5:A:1178:U:H1'	12:J:78:HIS:CE1	2.54	0.42
5:A:77:U:H3	5:A:108:A:H61	1.67	0.42
5:A:1024:G:H1	5:A:1031:C:H42	1.68	0.42
9:E:38:LEU:H	9:E:38:LEU:HD23	1.84	0.42
5:A:354:A:N6	5:A:1251:U:H3	2.17	0.42
5:A:768:G:C6	5:A:769:A:C6	3.08	0.42
5:A:1712:G:H22	5:A:2020:U:H3'	1.85	0.42
5:A:2146:A:H4'	5:A:2176:A:C2	2.54	0.42
8:D:156:LYS:H	8:D:156:LYS:HD2	1.85	0.42
3:5:17:ARG:HA	3:5:211:ASN:HD21	1.84	0.41
5:A:686:C:H2'	5:A:687:U:C6	2.55	0.41
5:A:898:U:C2	5:A:974:A:C2	3.08	0.41
5:A:412:A:C8	5:A:414:C:C5	3.08	0.41
5:A:1084:A:H2'	5:A:1085:G:H5''	2.03	0.41
5:A:1709:A:H61	5:A:2025:C:H42	1.68	0.41
5:A:674:G:H2'	5:A:675:C:C5'	2.50	0.41
5:A:856:G:H2'	5:A:857:U:C6	2.56	0.41
5:A:2294:U:C4	5:A:2295:A:C6	3.08	0.41
5:A:2731:G:H21	5:A:2733:C:N4	2.18	0.41
6:B:108:C:C4	6:B:109:C:C4	3.09	0.41
17:P:35:GLY:H	17:P:82:ALA:HB1	1.85	0.41
5:A:2889:A:C2	5:A:2890:U:C2	3.07	0.41
5:A:630:A:C2	5:A:857:U:H1'	2.55	0.41
5:A:2484:G:C5	5:A:2485:C:C4	3.08	0.41
5:A:2626:G:C5	5:A:2627:A:C6	3.09	0.41
5:A:1365:U:C6	5:A:1366:C:C5	3.09	0.41
5:A:1428:G:C2	5:A:1429:U:C2	3.09	0.41
5:A:2626:G:C2	5:A:2627:A:C2	3.09	0.41
5:A:2831:A:C2	5:A:2832:G:C4	3.09	0.41
18:Q:88:ILE:HG13	18:Q:89:GLU:H	1.86	0.41
5:A:2715:G:C6	5:A:2716:U:C4	3.08	0.41
5:A:1339:A:C2	5:A:1679:A:N1	2.90	0.40
5:A:1515:C:H2'	5:A:1516:A:C8	2.57	0.40
5:A:2775:U:H2'	5:A:2776:G:H5'	2.03	0.40
6:B:1:U:H3	6:B:115:G:H1	1.68	0.40
5:A:152:C:H2'	5:A:153:C:C6	2.56	0.40
5:A:629:G:H5'	5:A:1288:G:H21	1.86	0.40
5:A:1098:C:H2'	5:A:1099:C:C5	2.55	0.40
5:A:1553:A:C5	5:A:1554:U:C2	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:A:2130:G:H2'	5:A:2131:U:H5''	2.03	0.40
5:A:2259:G:C6	5:A:2260:U:C4	3.10	0.40
5:A:2753:U:H2'	5:A:2754:A:C8	2.56	0.40
16:O:3:THR:HG23	16:O:4:LYS:H	1.86	0.40
5:A:67:A:C2	5:A:74:U:C6	3.09	0.40
5:A:719:C:H2'	5:A:720:C:C5'	2.50	0.40
5:A:720:C:H41	14:L:42:SER:HB2	1.86	0.40
5:A:2444:G:C6	5:A:2445:C:N3	2.90	0.40
6:B:73:G:C6	6:B:74:G:C6	3.09	0.40

There are no symmetry-related clashes.

## 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 PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	0	53/59 (90%)	40 (76%)	10 (19%)	3 (6%)	1	18
2	2	42/44 (96%)	38 (90%)	2 (5%)	2 (5%)	2	21
3	5	116/232 (50%)	96 (83%)	11 (10%)	9 (8%)	1	13
4	6	139/141 (99%)	117 (84%)	15 (11%)	7 (5%)	2	20
7	C	275/277 (99%)	224 (82%)	33 (12%)	18 (6%)	1	16
8	D	204/209 (98%)	158 (78%)	38 (19%)	8 (4%)	3	23
9	E	204/207 (99%)	166 (81%)	19 (9%)	19 (9%)	0	11
10	F	177/179 (99%)	136 (77%)	27 (15%)	14 (8%)	1	13
11	G	161/179 (90%)	150 (93%)	9 (6%)	2 (1%)	13	50
12	J	141/145 (97%)	117 (83%)	14 (10%)	10 (7%)	1	14
13	K	120/122 (98%)	103 (86%)	11 (9%)	6 (5%)	2	20
14	L	144/146 (99%)	105 (73%)	24 (17%)	15 (10%)	0	8
15	N	118/120 (98%)	96 (81%)	19 (16%)	3 (2%)	5	32

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
16	O	118/120 (98%)	87 (74%)	18 (15%)	13 (11%)	0	7
17	P	110/115 (96%)	71 (64%)	23 (21%)	16 (14%)	0	4
18	Q	115/119 (97%)	104 (90%)	10 (9%)	1 (1%)	17	57
19	R	100/102 (98%)	79 (79%)	13 (13%)	8 (8%)	1	12
20	S	110/113 (97%)	97 (88%)	8 (7%)	5 (4%)	2	22
21	T	93/95 (98%)	70 (75%)	14 (15%)	9 (10%)	0	10
22	U	101/103 (98%)	71 (70%)	18 (18%)	12 (12%)	0	6
23	X	59/66 (89%)	53 (90%)	4 (7%)	2 (3%)	3	26
24	Y	54/59 (92%)	47 (87%)	5 (9%)	2 (4%)	3	24
All	All	2754/2952 (93%)	2225 (81%)	345 (12%)	184 (7%)	2	15

All (184) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	5	41	THR
3	5	209	VAL
3	5	212	VAL
4	6	93	ASN
7	C	34	LEU
7	C	40	LYS
7	C	260	ARG
7	C	266	SER
9	E	22	SER
9	E	75	GLN
9	E	147	SER
9	E	162	ALA
10	F	22	TYR
10	F	118	SER
10	F	132	ILE
14	L	10	GLU
14	L	57	LEU
14	L	73	GLU
14	L	74	TYR
16	O	34	PHE
16	O	56	ALA
17	P	16	ASP
17	P	19	ALA
17	P	25	THR
17	P	63	LYS

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Mol	Chain	Res	Type
17	P	80	LYS
17	P	86	VAL
18	Q	89	GLU
19	R	48	VAL
20	S	41	ARG
20	S	90	MET
21	T	69	TYR
21	T	85	ALA
22	U	25	ALA
22	U	26	ALA
22	U	41	VAL
22	U	61	ALA
22	U	74	LYS
23	X	30	PHE
1	0	49	TYR
2	2	38	GLY
3	5	199	ALA
7	C	27	ASP
7	C	143	ASN
7	C	156	ARG
7	C	199	GLN
8	D	128	GLN
8	D	145	SER
8	D	206	VAL
9	E	66	ARG
9	E	121	ASN
10	F	38	MET
10	F	67	VAL
10	F	89	VAL
10	F	152	MET
12	J	27	GLY
12	J	46	THR
12	J	127	ARG
13	K	110	ASN
14	L	15	THR
14	L	107	ALA
14	L	119	LYS
14	L	145	VAL
16	O	12	LEU
16	O	93	VAL
16	O	102	TYR
17	P	65	SER

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Mol	Chain	Res	Type
17	P	92	VAL
17	P	113	ILE
21	T	62	LYS
21	T	65	ARG
21	T	66	VAL
2	2	42	LEU
3	5	4	LYS
3	5	52	PRO
3	5	201	PRO
4	6	19	ASN
7	C	32	SER
8	D	48	ALA
9	E	7	TYR
9	E	11	GLY
9	E	15	GLY
9	E	26	ILE
9	E	49	HIS
9	E	81	PRO
9	E	82	GLN
9	E	157	ALA
10	F	175	MET
11	G	159	LYS
12	J	126	TYR
14	L	20	GLY
14	L	24	GLY
14	L	56	PRO
14	L	64	ARG
14	L	65	GLY
15	N	7	GLY
16	O	37	ASN
16	O	41	TYR
16	O	61	LYS
16	O	100	TYR
16	O	104	GLY
17	P	21	ARG
17	P	31	LYS
17	P	96	LYS
19	R	29	ALA
19	R	31	GLU
19	R	43	GLY
19	R	44	ASP
20	S	99	ARG

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Mol	Chain	Res	Type
21	T	3	ASP
21	T	9	LYS
22	U	5	LYS
22	U	8	LYS
22	U	12	ILE
22	U	94	ALA
24	Y	16	PRO
1	0	43	CYS
3	5	206	GLY
4	6	26	PRO
4	6	27	ALA
7	C	52	ARG
7	C	68	LYS
7	C	232	HIS
8	D	37	GLN
8	D	87	GLU
9	E	36	ALA
9	E	95	ARG
10	F	68	THR
12	J	41	HIS
12	J	49	VAL
13	K	26	GLY
13	K	35	ILE
13	K	81	GLU
13	K	91	LYS
14	L	139	ALA
15	N	73	GLU
15	N	112	ALA
16	O	22	LEU
16	O	47	ASP
17	P	37	ARG
21	T	70	THR
22	U	53	GLN
23	X	40	THR
3	5	179	SER
4	6	30	GLN
7	C	37	LEU
7	C	84	ASP
7	C	123	ASP
7	C	155	VAL
8	D	86	VAL
8	D	149	VAL

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Mol	Chain	Res	Type
9	E	167	ALA
10	F	45	GLN
12	J	13	GLU
12	J	66	THR
12	J	85	LEU
16	O	52	THR
17	P	59	PHE
17	P	98	TYR
19	R	98	GLU
20	S	12	ILE
21	T	31	ASP
1	0	45	ALA
4	6	119	ALA
9	E	58	ARG
10	F	81	GLU
10	F	109	PRO
10	F	110	ARG
11	G	166	GLU
12	J	110	LEU
14	L	105	LEU
17	P	38	GLU
22	U	33	VAL
22	U	42	LYS
24	Y	28	LEU
13	K	27	GLY
19	R	17	GLY
7	C	36	PRO
7	C	99	GLY
9	E	181	ILE
4	6	97	VAL
10	F	44	VAL
19	R	42	GLY
20	S	35	ILE

### 5.3.2 Protein sidechains ⓘ

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

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



Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	0	49/53 (92%)	49 (100%)	0	100	100
2	2	39/39 (100%)	38 (97%)	1 (3%)	46	66
3	5	98/185 (53%)	93 (95%)	5 (5%)	24	48
4	6	110/110 (100%)	110 (100%)	0	100	100
7	C	225/225 (100%)	213 (95%)	12 (5%)	22	47
8	D	167/170 (98%)	157 (94%)	10 (6%)	19	44
9	E	169/170 (99%)	163 (96%)	6 (4%)	35	59
10	F	154/154 (100%)	147 (96%)	7 (4%)	27	52
11	G	138/151 (91%)	133 (96%)	5 (4%)	35	59
12	J	122/123 (99%)	113 (93%)	9 (7%)	13	38
13	K	101/101 (100%)	98 (97%)	3 (3%)	41	63
14	L	110/110 (100%)	107 (97%)	3 (3%)	44	65
15	N	100/100 (100%)	97 (97%)	3 (3%)	41	63
16	O	93/93 (100%)	90 (97%)	3 (3%)	39	61
17	P	97/100 (97%)	90 (93%)	7 (7%)	14	39
18	Q	96/98 (98%)	95 (99%)	1 (1%)	76	86
19	R	84/84 (100%)	79 (94%)	5 (6%)	19	44
20	S	93/93 (100%)	91 (98%)	2 (2%)	52	71
21	T	85/85 (100%)	83 (98%)	2 (2%)	49	69
22	U	87/87 (100%)	84 (97%)	3 (3%)	37	60
23	X	54/57 (95%)	51 (94%)	3 (6%)	21	46
24	Y	51/53 (96%)	51 (100%)	0	100	100
All	All	2322/2441 (95%)	2232 (96%)	90 (4%)	36	56

All (90) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	2	19	ARG
3	5	3	LYS
3	5	7	LYS
3	5	47	ARG
3	5	212	VAL
3	5	217	THR
7	C	13	ARG
7	C	14	ARG

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Mol	Chain	Res	Type
7	C	40	LYS
7	C	68	LYS
7	C	77	ARG
7	C	91	ILE
7	C	116	ILE
7	C	154	LEU
7	C	164	VAL
7	C	182	ARG
7	C	201	GLU
7	C	274	ARG
8	D	18	GLU
8	D	37	GLN
8	D	42	GLU
8	D	74	THR
8	D	92	GLU
8	D	98	LYS
8	D	115	LYS
8	D	130	ARG
8	D	141	ARG
8	D	167	GLU
9	E	34	PHE
9	E	38	LEU
9	E	66	ARG
9	E	83	TRP
9	E	196	LYS
9	E	206	LEU
10	F	8	TYR
10	F	79	LEU
10	F	94	GLU
10	F	96	MET
10	F	153	ASP
10	F	157	VAL
10	F	169	LEU
11	G	28	LYS
11	G	96	ARG
11	G	99	LYS
11	G	120	GLU
11	G	164	ARG
12	J	2	ARG
12	J	26	LEU
12	J	46	THR
12	J	57	ILE

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Mol	Chain	Res	Type
12	J	69	LYS
12	J	73	LYS
12	J	126	TYR
12	J	130	GLU
12	J	134	GLU
13	K	3	GLN
13	K	53	LYS
13	K	90	ASP
14	L	50	PHE
14	L	51	GLU
14	L	55	MET
15	N	8	ARG
15	N	14	LYS
15	N	93	GLU
16	O	63	LEU
16	O	94	VAL
16	O	97	ARG
17	P	37	ARG
17	P	38	GLU
17	P	48	ILE
17	P	64	ILE
17	P	74	PHE
17	P	85	GLU
17	P	104	ARG
18	Q	66	ASN
19	R	10	LYS
19	R	28	GLU
19	R	36	GLU
19	R	54	GLU
19	R	98	GLU
20	S	2	GLN
20	S	11	ARG
21	T	57	MET
21	T	91	GLU
22	U	15	LYS
22	U	33	VAL
22	U	90	LYS
23	X	15	GLU
23	X	17	LYS
23	X	45	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (17) such sidechains are listed below:

Mol	Chain	Res	Type
1	0	19	HIS
2	2	16	HIS
3	5	211	ASN
4	6	117	ASN
7	C	95	ASN
8	D	50	GLN
10	F	2	ASN
10	F	37	ASN
10	F	172	GLN
11	G	23	ASN
11	G	39	HIS
13	K	3	GLN
14	L	38	GLN
15	N	61	GLN
16	O	103	HIS
17	P	77	HIS
20	S	2	GLN

### 5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
5	A	2882/2927 (98%)	895 (31%)	205 (7%)
6	B	118/119 (99%)	24 (20%)	3 (2%)
All	All	3000/3046 (98%)	919 (30%)	208 (6%)

All (919) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
5	A	2	G
5	A	3	U
5	A	4	U
5	A	8	U
5	A	10	A
5	A	11	G
5	A	12	A
5	A	13	A
5	A	14	A
5	A	41	A
5	A	42	G
5	A	46	C
5	A	50	U
5	A	51	G

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Mol	Chain	Res	Type
5	A	61	A
5	A	64	A
5	A	71	A
5	A	72	U
5	A	74	U
5	A	75	G
5	A	82	G
5	A	83	G
5	A	84	A
5	A	85	G
5	A	88	G
5	A	90	A
5	A	91	A
5	A	93	C
5	A	95	A
5	A	96	G
5	A	99	U
5	A	100	U
5	A	101	G
5	A	104	C
5	A	111	U
5	A	112	U
5	A	117	A
5	A	118	A
5	A	119	U
5	A	121	G
5	A	124	A
5	A	125	A
5	A	138	U
5	A	140	A
5	A	147	G
5	A	150	A
5	A	151	U
5	A	152	C
5	A	153	C
5	A	161	A
5	A	163	U
5	A	164	U
5	A	176	A
5	A	177	G
5	A	179	A
5	A	180	G

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Mol	Chain	Res	Type
5	A	183	A
5	A	186	C
5	A	187	C
5	A	196	U
5	A	199	A
5	A	202	A
5	A	207	A
5	A	208	G
5	A	218	G
5	A	219	A
5	A	222	A
5	A	224	A
5	A	225	A
5	A	226	A
5	A	230	A
5	A	231	A
5	A	232	U
5	A	233	G
5	A	236	A
5	A	247	A
5	A	248	G
5	A	251	G
5	A	264	G
5	A	270	C
5	A	275	A
5	A	283	G
5	A	287	G
5	A	291	C
5	A	298	U
5	A	299	U
5	A	300	G
5	A	301	U
5	A	302	A
5	A	309	U
5	A	310	C
5	A	311	U
5	A	312	G
5	A	313	U
5	A	314	A
5	A	315	C
5	A	317	G
5	A	318	A

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Mol	Chain	Res	Type
5	A	319	G
5	A	321	U
5	A	322	A
5	A	323	C
5	A	324	A
5	A	325	A
5	A	326	A
5	A	327	G
5	A	331	C
5	A	344	G
5	A	345	A
5	A	346	G
5	A	353	A
5	A	354	A
5	A	355	A
5	A	361	G
5	A	362	C
5	A	366	A
5	A	373	A
5	A	374	A
5	A	375	C
5	A	376	A
5	A	377	G
5	A	390	A
5	A	393	U
5	A	396	G
5	A	397	U
5	A	399	C
5	A	400	U
5	A	401	C
5	A	402	U
5	A	403	C
5	A	406	G
5	A	407	A
5	A	408	G
5	A	410	G
5	A	411	G
5	A	412	A
5	A	413	U
5	A	414	C
5	A	415	C
5	A	431	A

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Mol	Chain	Res	Type
5	A	433	G
5	A	434	U
5	A	435	G
5	A	436	A
5	A	437	A
5	A	443	G
5	A	451	C
5	A	452	C
5	A	453	G
5	A	458	G
5	A	459	A
5	A	475	A
5	A	476	A
5	A	482	C
5	A	485	U
5	A	486	A
5	A	488	U
5	A	491	C
5	A	498	U
5	A	499	G
5	A	500	A
5	A	502	C
5	A	504	A
5	A	512	G
5	A	513	A
5	A	517	A
5	A	519	A
5	A	520	G
5	A	522	U
5	A	527	A
5	A	528	G
5	A	540	G
5	A	546	G
5	A	550	G
5	A	551	A
5	A	554	U
5	A	555	C
5	A	571	U
5	A	573	C
5	A	574	A
5	A	576	G
5	A	577	U

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Mol	Chain	Res	Type
5	A	578	A
5	A	579	G
5	A	583	G
5	A	589	G
5	A	593	A
5	A	594	C
5	A	600	A
5	A	601	U
5	A	606	U
5	A	607	G
5	A	610	U
5	A	611	U
5	A	612	U
5	A	615	U
5	A	617	G
5	A	619	A
5	A	629	G
5	A	630	A
5	A	631	G
5	A	632	U
5	A	646	A
5	A	647	A
5	A	648	G
5	A	651	U
5	A	658	A
5	A	659	A
5	A	660	G
5	A	661	A
5	A	662	U
5	A	663	G
5	A	667	A
5	A	668	G
5	A	673	A
5	A	675	C
5	A	678	A
5	A	679	A
5	A	683	A
5	A	691	U
5	A	692	A
5	A	697	G
5	A	698	C
5	A	699	A

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Mol	Chain	Res	Type
5	A	700	U
5	A	701	G
5	A	703	G
5	A	704	U
5	A	716	G
5	A	717	A
5	A	720	C
5	A	733	U
5	A	734	C
5	A	755	U
5	A	756	U
5	A	768	G
5	A	769	A
5	A	777	C
5	A	789	C
5	A	794	U
5	A	795	G
5	A	800	G
5	A	809	U
5	A	811	A
5	A	812	G
5	A	823	G
5	A	824	G
5	A	828	A
5	A	829	A
5	A	831	U
5	A	832	G
5	A	833	C
5	A	835	A
5	A	836	A
5	A	837	U
5	A	838	C
5	A	840	A
5	A	852	G
5	A	853	C
5	A	859	C
5	A	866	A
5	A	868	A
5	A	874	U
5	A	875	U
5	A	876	A
5	A	877	G

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Mol	Chain	Res	Type
5	A	878	G
5	A	895	G
5	A	901	U
5	A	904	A
5	A	906	G
5	A	912	C
5	A	913	A
5	A	919	U
5	A	925	A
5	A	932	C
5	A	933	C
5	A	934	U
5	A	937	C
5	A	938	G
5	A	942	U
5	A	943	A
5	A	944	C
5	A	945	C
5	A	946	G
5	A	948	A
5	A	954	U
5	A	957	A
5	A	964	A
5	A	973	G
5	A	976	U
5	A	977	U
5	A	985	G
5	A	987	A
5	A	990	C
5	A	992	G
5	A	998	G
5	A	999	A
5	A	1007	G
5	A	1008	A
5	A	1019	A
5	A	1020	A
5	A	1021	A
5	A	1022	G
5	A	1027	A
5	A	1028	C
5	A	1029	A
5	A	1030	G

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Mol	Chain	Res	Type
5	A	1031	C
5	A	1035	G
5	A	1037	C
5	A	1042	A
5	A	1051	C
5	A	1054	A
5	A	1055	A
5	A	1057	G
5	A	1058	U
5	A	1059	A
5	A	1066	A
5	A	1068	G
5	A	1071	G
5	A	1072	A
5	A	1079	U
5	A	1080	G
5	A	1081	U
5	A	1085	G
5	A	1090	U
5	A	1091	U
5	A	1092	A
5	A	1094	A
5	A	1095	C
5	A	1099	C
5	A	1103	A
5	A	1105	G
5	A	1106	U
5	A	1107	U
5	A	1108	G
5	A	1111	U
5	A	1113	A
5	A	1114	G
5	A	1115	A
5	A	1116	A
5	A	1117	G
5	A	1118	C
5	A	1119	A
5	A	1121	C
5	A	1123	A
5	A	1124	C
5	A	1125	C
5	A	1129	U

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Mol	Chain	Res	Type
5	A	1130	A
5	A	1131	A
5	A	1133	G
5	A	1134	A
5	A	1135	G
5	A	1145	G
5	A	1153	G
5	A	1154	U
5	A	1156	G
5	A	1158	G
5	A	1160	G
5	A	1161	A
5	A	1163	U
5	A	1173	A
5	A	1174	A
5	A	1175	A
5	A	1176	U
5	A	1177	G
5	A	1178	U
5	A	1179	A
5	A	1181	C
5	A	1182	G
5	A	1188	A
5	A	1201	A
5	A	1209	G
5	A	1210	A
5	A	1211	C
5	A	1212	U
5	A	1215	U
5	A	1216	C
5	A	1217	U
5	A	1218	U
5	A	1221	A
5	A	1222	A
5	A	1226	U
5	A	1227	G
5	A	1228	G
5	A	1231	G
5	A	1244	A
5	A	1245	G
5	A	1246	G
5	A	1250	G

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Mol	Chain	Res	Type
5	A	1251	U
5	A	1252	G
5	A	1260	A
5	A	1261	C
5	A	1262	C
5	A	1264	G
5	A	1269	A
5	A	1270	C
5	A	1271	U
5	A	1276	G
5	A	1277	A
5	A	1284	A
5	A	1288	G
5	A	1292	G
5	A	1293	A
5	A	1295	U
5	A	1296	G
5	A	1305	A
5	A	1311	G
5	A	1312	A
5	A	1314	A
5	A	1316	A
5	A	1325	A
5	A	1326	A
5	A	1331	C
5	A	1339	A
5	A	1340	A
5	A	1341	U
5	A	1350	U
5	A	1353	C
5	A	1358	G
5	A	1360	A
5	A	1366	C
5	A	1371	G
5	A	1380	U
5	A	1381	A
5	A	1382	G
5	A	1388	A
5	A	1389	C
5	A	1391	U
5	A	1398	A
5	A	1404	A

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Mol	Chain	Res	Type
5	A	1405	A
5	A	1417	A
5	A	1418	U
5	A	1419	G
5	A	1422	C
5	A	1423	A
5	A	1424	A
5	A	1426	A
5	A	1427	G
5	A	1431	G
5	A	1435	U
5	A	1437	C
5	A	1438	C
5	A	1445	A
5	A	1446	C
5	A	1449	C
5	A	1451	U
5	A	1455	C
5	A	1457	U
5	A	1458	U
5	A	1459	U
5	A	1460	G
5	A	1461	A
5	A	1462	G
5	A	1463	C
5	A	1467	G
5	A	1473	A
5	A	1474	C
5	A	1482	G
5	A	1483	A
5	A	1484	U
5	A	1489	U
5	A	1490	A
5	A	1493	C
5	A	1494	G
5	A	1495	C
5	A	1496	G
5	A	1497	G
5	A	1498	U
5	A	1500	U
5	A	1501	U
5	A	1504	A

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Mol	Chain	Res	Type
5	A	1505	U
5	A	1507	U
5	A	1508	C
5	A	1513	U
5	A	1514	C
5	A	1518	G
5	A	1522	U
5	A	1523	U
5	A	1525	G
5	A	1529	G
5	A	1531	G
5	A	1536	A
5	A	1539	C
5	A	1540	A
5	A	1541	A
5	A	1542	A
5	A	1543	U
5	A	1544	C
5	A	1545	C
5	A	1548	U
5	A	1551	C
5	A	1555	A
5	A	1556	A
5	A	1557	G
5	A	1562	A
5	A	1563	G
5	A	1565	U
5	A	1566	G
5	A	1567	U
5	A	1569	A
5	A	1575	A
5	A	1576	G
5	A	1577	C
5	A	1581	A
5	A	1582	U
5	A	1583	A
5	A	1584	U
5	A	1585	A
5	A	1586	G
5	A	1590	C
5	A	1591	G
5	A	1592	A

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Mol	Chain	Res	Type
5	A	1594	G
5	A	1596	U
5	A	1606	A
5	A	1607	C
5	A	1614	A
5	A	1615	A
5	A	1617	A
5	A	1626	U
5	A	1627	A
5	A	1628	G
5	A	1629	C
5	A	1630	G
5	A	1631	A
5	A	1633	G
5	A	1636	A
5	A	1648	A
5	A	1653	A
5	A	1654	A
5	A	1658	G
5	A	1659	A
5	A	1660	C
5	A	1662	C
5	A	1663	A
5	A	1677	A
5	A	1678	G
5	A	1679	A
5	A	1680	A
5	A	1685	A
5	A	1691	A
5	A	1693	C
5	A	1697	A
5	A	1698	G
5	A	1699	A
5	A	1711	G
5	A	1712	G
5	A	1719	G
5	A	1721	A
5	A	1724	A
5	A	1735	A
5	A	1739	C
5	A	1740	G
5	A	1743	A

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Mol	Chain	Res	Type
5	A	1744	G
5	A	1746	A
5	A	1748	G
5	A	1761	G
5	A	1762	G
5	A	1765	G
5	A	1768	A
5	A	1769	G
5	A	1771	C
5	A	1772	C
5	A	1777	G
5	A	1785	G
5	A	1786	U
5	A	1787	G
5	A	1788	A
5	A	1789	A
5	A	1790	U
5	A	1792	G
5	A	1793	G
5	A	1802	A
5	A	1806	U
5	A	1809	A
5	A	1810	G
5	A	1812	A
5	A	1813	A
5	A	1814	A
5	A	1815	A
5	A	1816	A
5	A	1817	C
5	A	1820	A
5	A	1821	G
5	A	1828	G
5	A	1829	C
5	A	1830	G
5	A	1845	A
5	A	1849	U
5	A	1858	A
5	A	1864	G
5	A	1867	C
5	A	1874	G
5	A	1876	A
5	A	1877	A

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Mol	Chain	Res	Type
5	A	1922	C
5	A	1923	C
5	A	1924	C
5	A	1930	A
5	A	1936	G
5	A	1938	C
5	A	1940	U
5	A	1941	A
5	A	1944	U
5	A	1946	U
5	A	1949	C
5	A	1950	G
5	A	1953	C
5	A	1954	C
5	A	1955	U
5	A	1956	A
5	A	1957	A
5	A	1958	G
5	A	1959	G
5	A	1965	A
5	A	1966	A
5	A	1967	A
5	A	1968	U
5	A	1969	U
5	A	1970	C
5	A	1971	C
5	A	1977	G
5	A	1984	U
5	A	1992	C
5	A	1993	G
5	A	1994	C
5	A	1996	C
5	A	1999	A
5	A	2000	A
5	A	2001	G
5	A	2010	A
5	A	2011	U
5	A	2016	G
5	A	2021	G
5	A	2022	U
5	A	2026	A
5	A	2028	C

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Mol	Chain	Res	Type
5	A	2050	G
5	A	2051	U
5	A	2052	A
5	A	2059	A
5	A	2060	A
5	A	2061	G
5	A	2062	A
5	A	2063	U
5	A	2065	C
5	A	2072	C
5	A	2081	G
5	A	2084	C
5	A	2088	A
5	A	2090	G
5	A	2098	G
5	A	2121	U
5	A	2122	G
5	A	2125	U
5	A	2128	U
5	A	2129	G
5	A	2131	U
5	A	2132	A
5	A	2133	C
5	A	2134	A
5	A	2136	C
5	A	2137	U
5	A	2139	G
5	A	2140	U
5	A	2145	G
5	A	2148	A
5	A	2154	G
5	A	2155	A
5	A	2156	G
5	A	2158	C
5	A	2159	U
5	A	2160	U
5	A	2161	G
5	A	2162	G
5	A	2163	A
5	A	2175	C
5	A	2176	A
5	A	2188	G

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Mol	Chain	Res	Type
5	A	2189	G
5	A	2193	C
5	A	2194	G
5	A	2195	G
5	A	2201	U
5	A	2202	A
5	A	2203	C
5	A	2207	C
5	A	2208	C
5	A	2210	G
5	A	2214	G
5	A	2215	U
5	A	2216	A
5	A	2218	U
5	A	2219	G
5	A	2220	A
5	A	2222	C
5	A	2227	A
5	A	2229	C
5	A	2233	C
5	A	2240	U
5	A	2242	U
5	A	2253	G
5	A	2254	A
5	A	2267	G
5	A	2268	G
5	A	2272	U
5	A	2274	U
5	A	2283	C
5	A	2294	U
5	A	2295	A
5	A	2297	A
5	A	2298	A
5	A	2299	G
5	A	2304	C
5	A	2312	C
5	A	2315	A
5	A	2316	A
5	A	2317	A
5	A	2333	G
5	A	2336	G
5	A	2337	G

*Continued on next page...*

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Mol	Chain	Res	Type
5	A	2338	A
5	A	2339	A
5	A	2341	U
5	A	2342	C
5	A	2345	U
5	A	2348	C
5	A	2349	A
5	A	2350	G
5	A	2360	G
5	A	2363	C
5	A	2365	A
5	A	2376	C
5	A	2379	C
5	A	2383	A
5	A	2384	C
5	A	2385	C
5	A	2386	U
5	A	2387	A
5	A	2390	A
5	A	2405	A
5	A	2408	G
5	A	2412	G
5	A	2414	C
5	A	2417	A
5	A	2421	A
5	A	2424	C
5	A	2428	G
5	A	2431	U
5	A	2434	G
5	A	2435	C
5	A	2452	U
5	A	2453	C
5	A	2454	A
5	A	2457	G
5	A	2458	G
5	A	2459	A
5	A	2460	U
5	A	2461	A
5	A	2463	A
5	A	2464	A
5	A	2468	A
5	A	2469	C

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Mol	Chain	Res	Type
5	A	2470	C
5	A	2479	A
5	A	2494	C
5	A	2498	A
5	A	2499	G
5	A	2500	A
5	A	2501	G
5	A	2502	U
5	A	2504	C
5	A	2505	A
5	A	2506	C
5	A	2507	A
5	A	2511	A
5	A	2512	C
5	A	2520	U
5	A	2521	U
5	A	2525	C
5	A	2526	A
5	A	2528	C
5	A	2531	G
5	A	2532	A
5	A	2534	G
5	A	2535	U
5	A	2536	C
5	A	2547	A
5	A	2548	U
5	A	2549	C
5	A	2553	G
5	A	2558	G
5	A	2559	U
5	A	2560	A
5	A	2563	C
5	A	2571	A
5	A	2572	G
5	A	2583	U
5	A	2595	A
5	A	2596	G
5	A	2602	C
5	A	2605	G
5	A	2606	A
5	A	2607	G
5	A	2612	G

*Continued on next page...*

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Mol	Chain	Res	Type
5	A	2614	U
5	A	2621	G
5	A	2631	A
5	A	2639	C
5	A	2640	C
5	A	2641	C
5	A	2643	A
5	A	2644	U
5	A	2657	C
5	A	2658	A
5	A	2659	G
5	A	2660	G
5	A	2670	A
5	A	2682	U
5	A	2683	A
5	A	2686	A
5	A	2702	G
5	A	2704	A
5	A	2708	A
5	A	2711	G
5	A	2718	U
5	A	2719	A
5	A	2720	C
5	A	2731	G
5	A	2732	C
5	A	2743	G
5	A	2744	C
5	A	2749	U
5	A	2755	U
5	A	2756	G
5	A	2762	A
5	A	2777	A
5	A	2779	A
5	A	2781	C
5	A	2784	C
5	A	2786	A
5	A	2790	A
5	A	2791	U
5	A	2792	G
5	A	2794	A
5	A	2807	A
5	A	2808	U

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Mol	Chain	Res	Type
5	A	2809	G
5	A	2810	A
5	A	2816	C
5	A	2818	C
5	A	2819	A
5	A	2821	U
5	A	2822	C
5	A	2823	C
5	A	2825	C
5	A	2826	A
5	A	2827	A
5	A	2829	G
5	A	2831	A
5	A	2832	G
5	A	2833	U
5	A	2843	G
5	A	2844	A
5	A	2845	A
5	A	2846	A
5	A	2848	A
5	A	2849	U
5	A	2857	U
5	A	2859	G
5	A	2860	A
5	A	2869	A
5	A	2870	G
5	A	2874	G
5	A	2875	A
5	A	2884	G
5	A	2885	A
5	A	2886	C
5	A	2892	G
5	A	2897	G
5	A	2898	A
5	A	2904	A
5	A	2909	U
5	A	2910	C
5	A	2917	G
5	A	2918	G
5	A	2919	A
5	A	2927	A
6	B	10	G

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Mol	Chain	Res	Type
6	B	11	A
6	B	13	A
6	B	14	G
6	B	22	G
6	B	24	C
6	B	33	U
6	B	35	C
6	B	39	A
6	B	42	G
6	B	43	A
6	B	54	U
6	B	64	A
6	B	65	G
6	B	79	C
6	B	85	U
6	B	86	U
6	B	89	C
6	B	97	A
6	B	106	C
6	B	107	G
6	B	116	C
6	B	117	A
6	B	118	A

All (208) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
5	A	3	U
5	A	42	G
5	A	63	G
5	A	71	A
5	A	74	U
5	A	90	A
5	A	95	A
5	A	99	U
5	A	102	A
5	A	124	A
5	A	150	A
5	A	163	U
5	A	175	G
5	A	176	A
5	A	178	A

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Mol	Chain	Res	Type
5	A	179	A
5	A	182	C
5	A	185	A
5	A	218	G
5	A	224	A
5	A	225	A
5	A	235	G
5	A	270	C
5	A	309	U
5	A	310	C
5	A	311	U
5	A	314	A
5	A	323	C
5	A	365	U
5	A	375	C
5	A	376	A
5	A	400	U
5	A	402	U
5	A	406	G
5	A	411	G
5	A	413	U
5	A	414	C
5	A	434	U
5	A	435	G
5	A	481	U
5	A	512	G
5	A	519	A
5	A	553	A
5	A	572	A
5	A	588	C
5	A	618	A
5	A	630	A
5	A	631	G
5	A	647	A
5	A	659	A
5	A	666	G
5	A	673	A
5	A	697	G
5	A	700	U
5	A	703	G
5	A	799	A
5	A	823	G

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Mol	Chain	Res	Type
5	A	836	A
5	A	837	U
5	A	851	A
5	A	852	G
5	A	858	U
5	A	903	G
5	A	933	C
5	A	938	G
5	A	976	U
5	A	978	A
5	A	998	G
5	A	1021	A
5	A	1091	U
5	A	1093	G
5	A	1098	C
5	A	1102	G
5	A	1106	U
5	A	1110	C
5	A	1113	A
5	A	1114	G
5	A	1115	A
5	A	1174	A
5	A	1176	U
5	A	1210	A
5	A	1220	G
5	A	1227	G
5	A	1250	G
5	A	1270	C
5	A	1292	G
5	A	1293	A
5	A	1313	A
5	A	1314	A
5	A	1325	A
5	A	1339	A
5	A	1340	A
5	A	1363	G
5	A	1381	A
5	A	1417	A
5	A	1418	U
5	A	1423	A
5	A	1424	A
5	A	1448	U

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Mol	Chain	Res	Type
5	A	1450	C
5	A	1454	C
5	A	1458	U
5	A	1460	G
5	A	1473	A
5	A	1492	G
5	A	1497	G
5	A	1500	U
5	A	1504	A
5	A	1541	A
5	A	1562	A
5	A	1566	G
5	A	1582	U
5	A	1590	C
5	A	1594	G
5	A	1595	U
5	A	1606	A
5	A	1625	C
5	A	1626	U
5	A	1628	G
5	A	1629	C
5	A	1653	A
5	A	1658	G
5	A	1676	G
5	A	1677	A
5	A	1698	G
5	A	1711	G
5	A	1723	A
5	A	1739	C
5	A	1767	A
5	A	1785	G
5	A	1787	G
5	A	1805	G
5	A	1812	A
5	A	1813	A
5	A	1815	A
5	A	1816	A
5	A	1828	G
5	A	1848	A
5	A	1937	C
5	A	1945	A
5	A	1953	C

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Mol	Chain	Res	Type
5	A	1967	A
5	A	1973	U
5	A	1999	A
5	A	2007	A
5	A	2011	U
5	A	2021	G
5	A	2026	A
5	A	2027	A
5	A	2051	U
5	A	2059	A
5	A	2060	A
5	A	2061	G
5	A	2062	A
5	A	2064	G
5	A	2139	G
5	A	2147	U
5	A	2154	G
5	A	2155	A
5	A	2160	U
5	A	2162	G
5	A	2207	C
5	A	2241	A
5	A	2252	A
5	A	2311	G
5	A	2337	G
5	A	2348	C
5	A	2386	U
5	A	2417	A
5	A	2451	C
5	A	2468	A
5	A	2484	G
5	A	2506	C
5	A	2510	G
5	A	2525	C
5	A	2526	A
5	A	2547	A
5	A	2562	U
5	A	2571	A
5	A	2605	G
5	A	2612	G
5	A	2615	C
5	A	2639	C

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Mol	Chain	Res	Type
5	A	2656	G
5	A	2658	A
5	A	2719	A
5	A	2742	C
5	A	2755	U
5	A	2780	G
5	A	2785	U
5	A	2808	U
5	A	2818	C
5	A	2821	U
5	A	2826	A
5	A	2827	A
5	A	2833	U
5	A	2844	A
5	A	2858	U
5	A	2869	A
5	A	2870	G
5	A	2874	G
5	A	2898	A
5	A	2909	U
5	A	2917	G
5	A	2918	G
6	B	10	G
6	B	54	U
6	B	116	C

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

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

## 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

## 5.6 Ligand geometry [i](#)

There are no ligands in this entry.

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

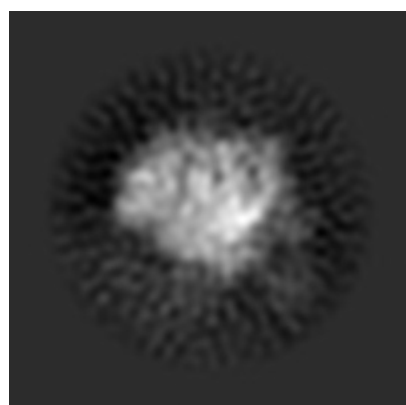
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-5642. These allow visual inspection of the internal detail of the map and identification of artifacts.

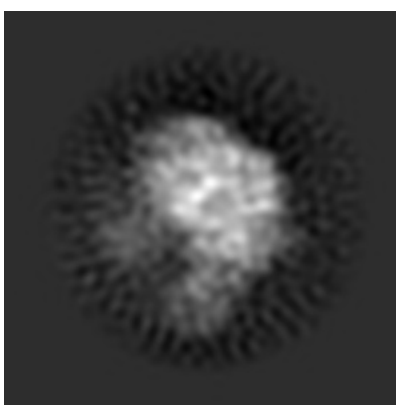
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

### 6.1 Orthogonal projections [i](#)

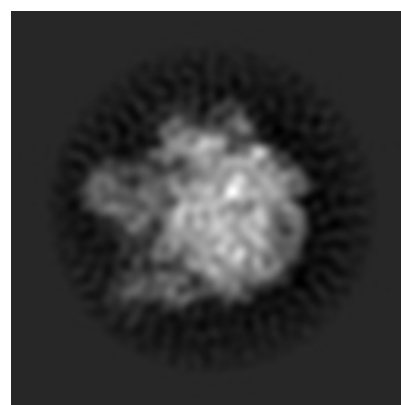
#### 6.1.1 Primary map



X



Y

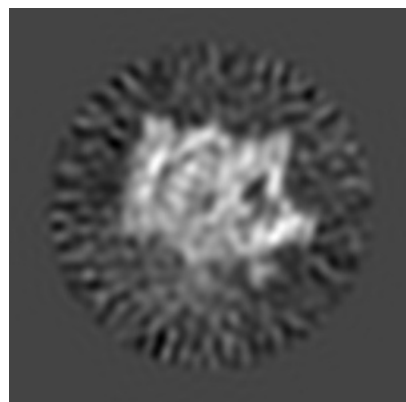


Z

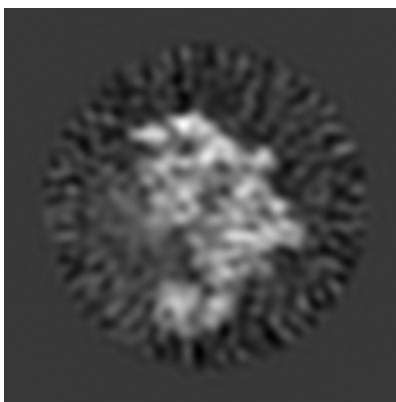
The images above show the map projected in three orthogonal directions.

### 6.2 Central slices [i](#)

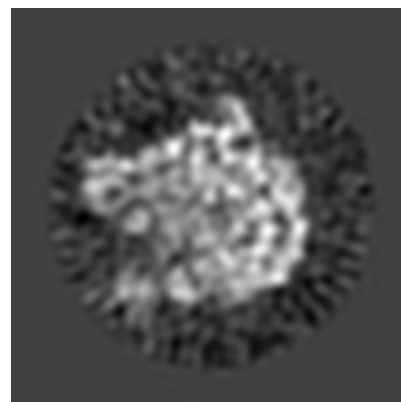
#### 6.2.1 Primary map



X Index: 128



Y Index: 128

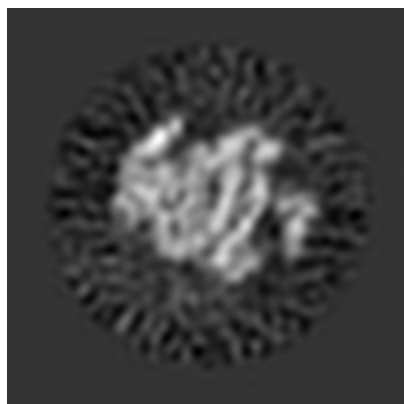


Z Index: 128

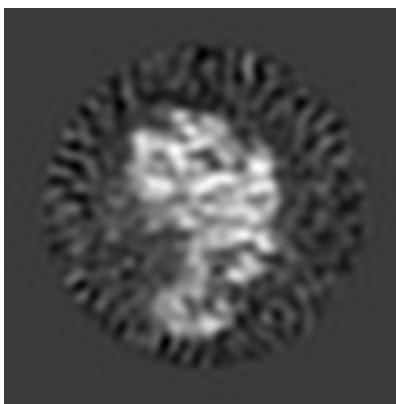
The images above show central slices of the map in three orthogonal directions.

## 6.3 Largest variance slices [i](#)

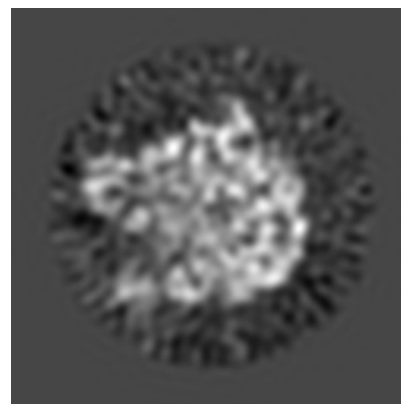
### 6.3.1 Primary map



X Index: 143



Y Index: 139

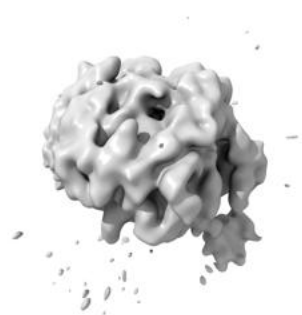


Z Index: 130

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

## 6.4 Orthogonal surface views [i](#)

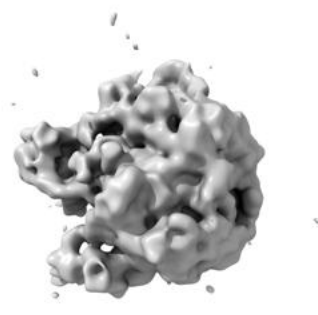
### 6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 2.7. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

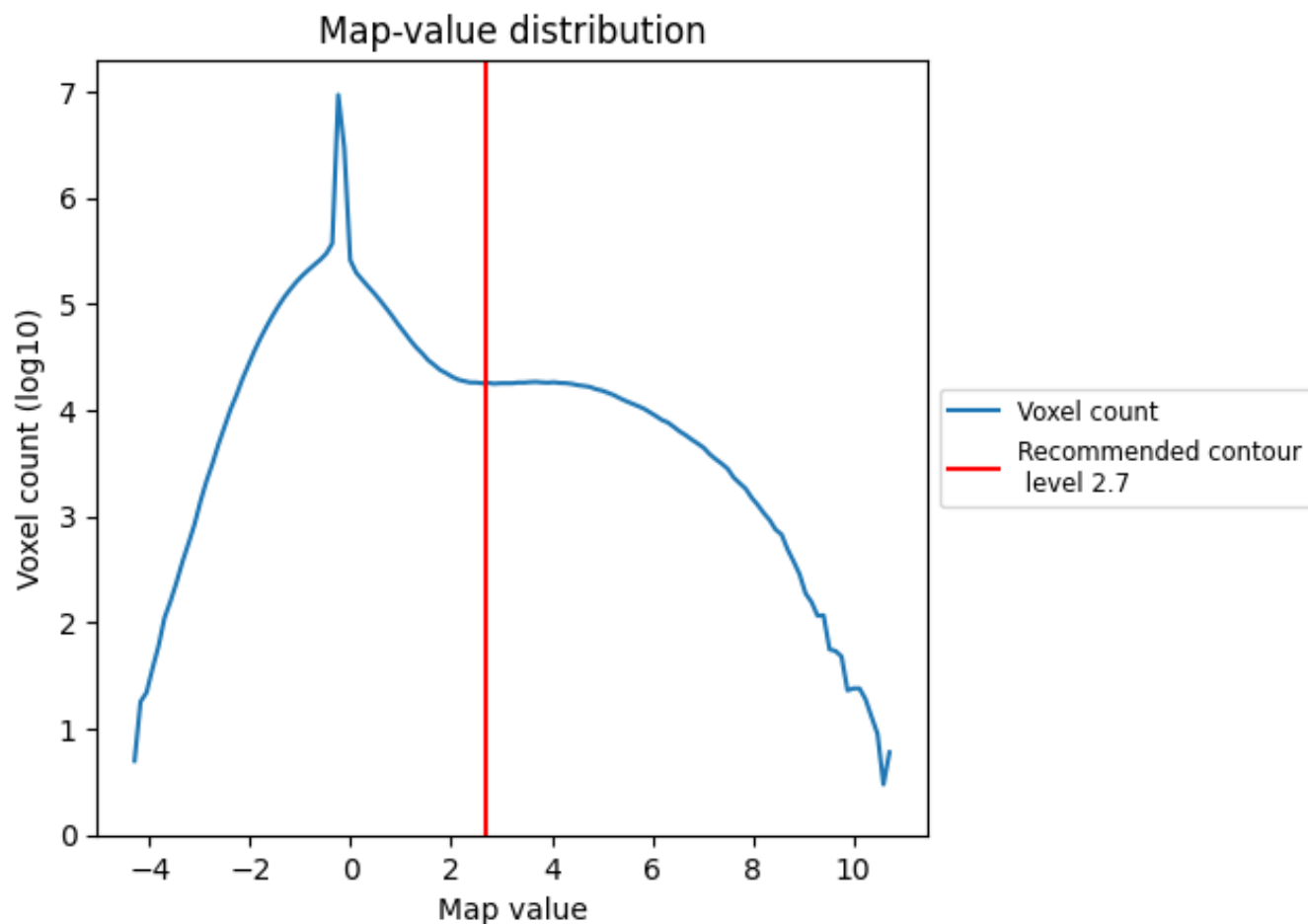
## 6.5 Mask visualisation

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

## 7 Map analysis [i](#)

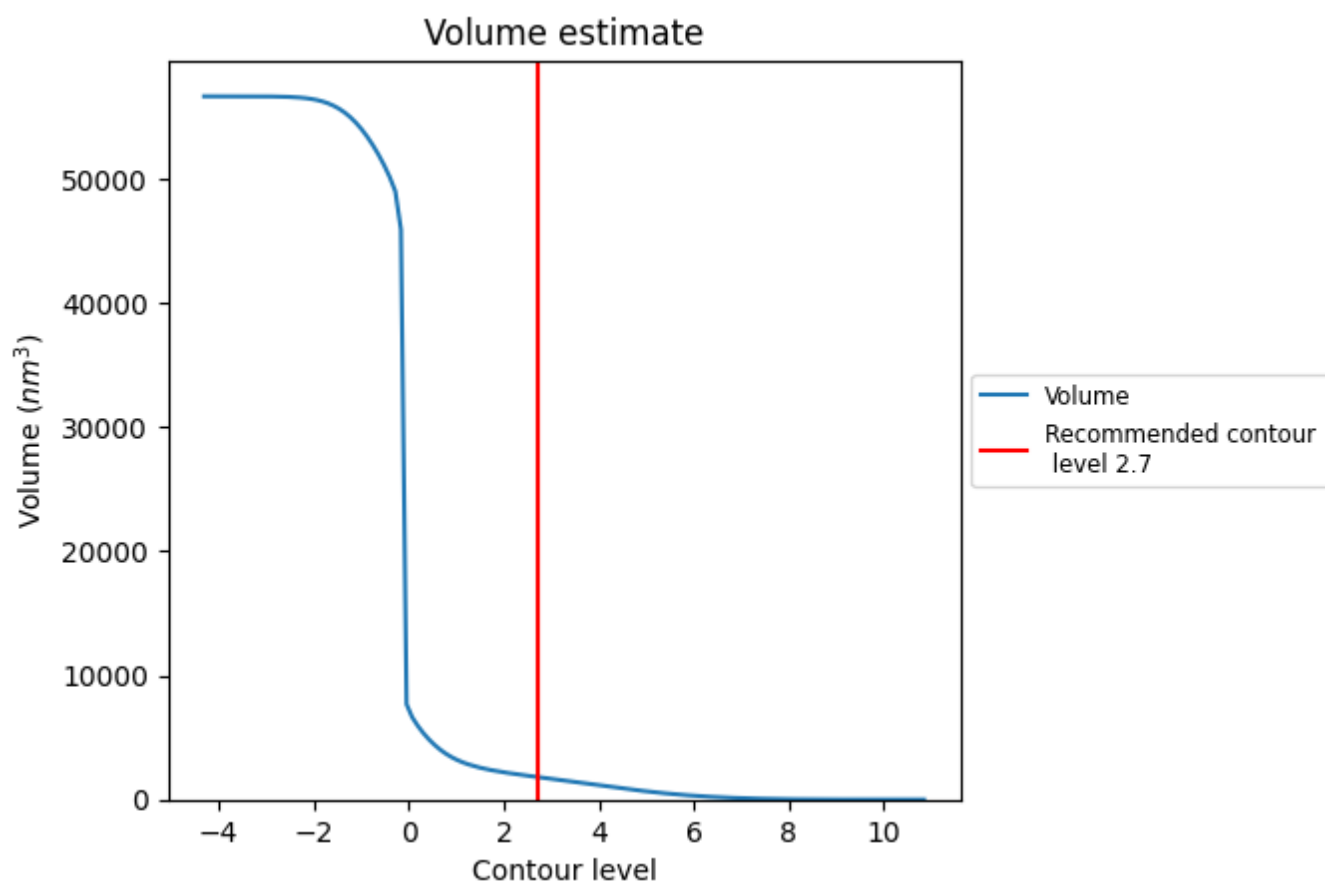
This section contains the results of statistical analysis of the map.

### 7.1 Map-value distribution [i](#)



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

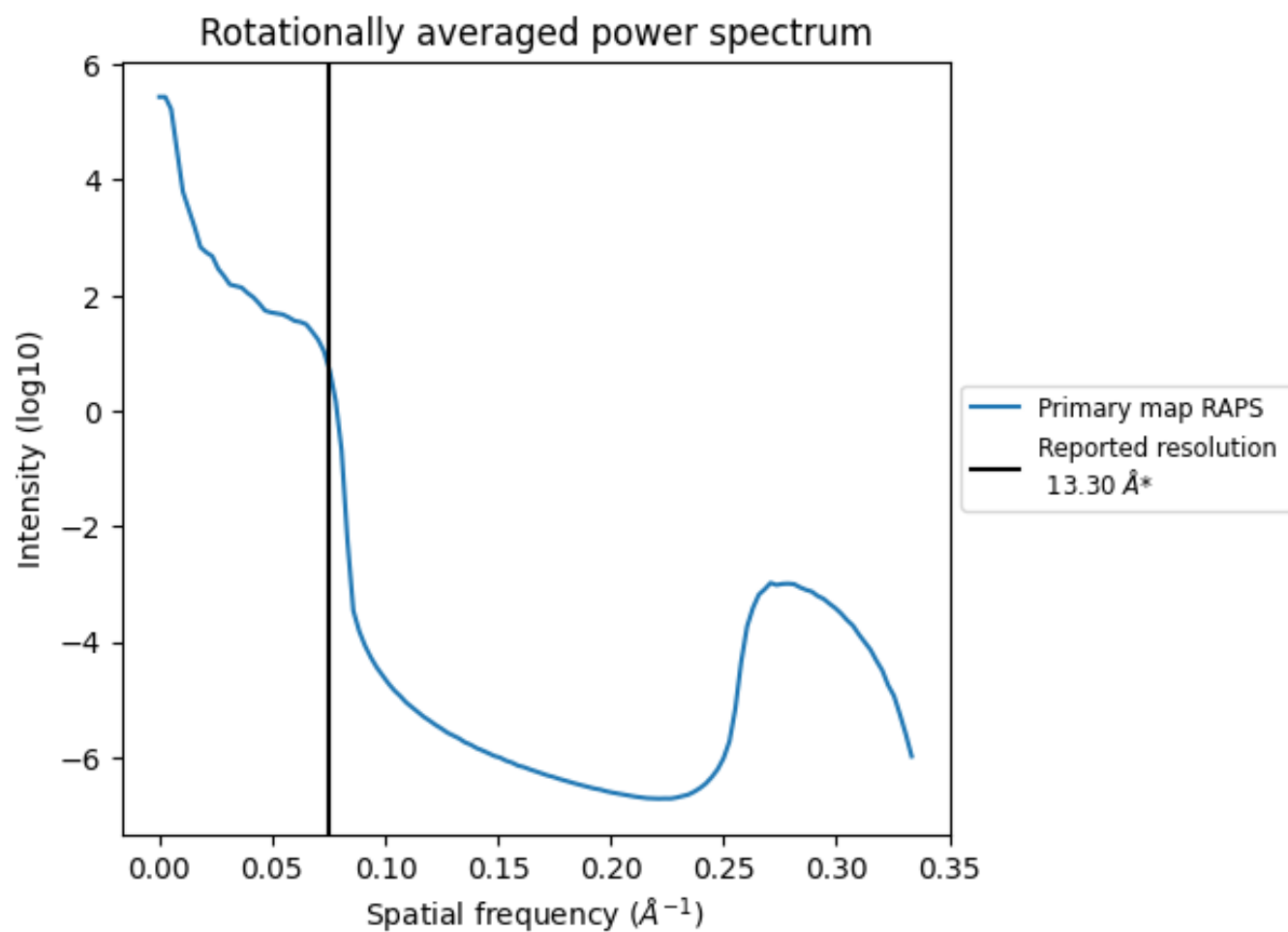
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1820 nm<sup>3</sup>; this corresponds to an approximate mass of 1644 kDa.

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

### 7.3 Rotationally averaged power spectrum ⓘ



\*Reported resolution corresponds to spatial frequency of 0.075 Å<sup>-1</sup>



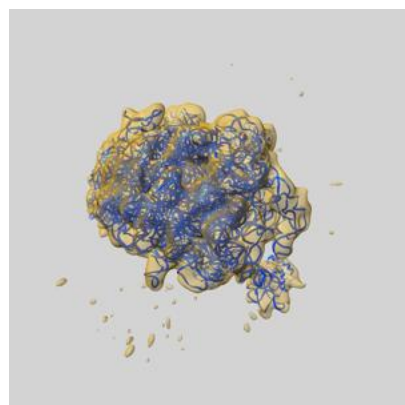
## 8 Fourier-Shell correlation ⓘ

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

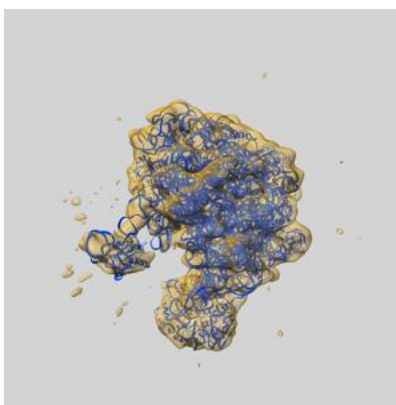
## 9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-5642 and PDB model 3J3V. Per-residue inclusion information can be found in [section 3](#) on [page 8](#).

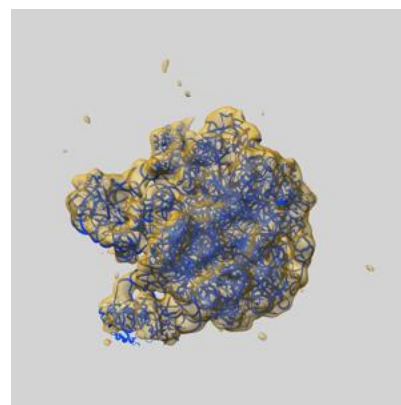
### 9.1 Map-model overlay [i](#)



X



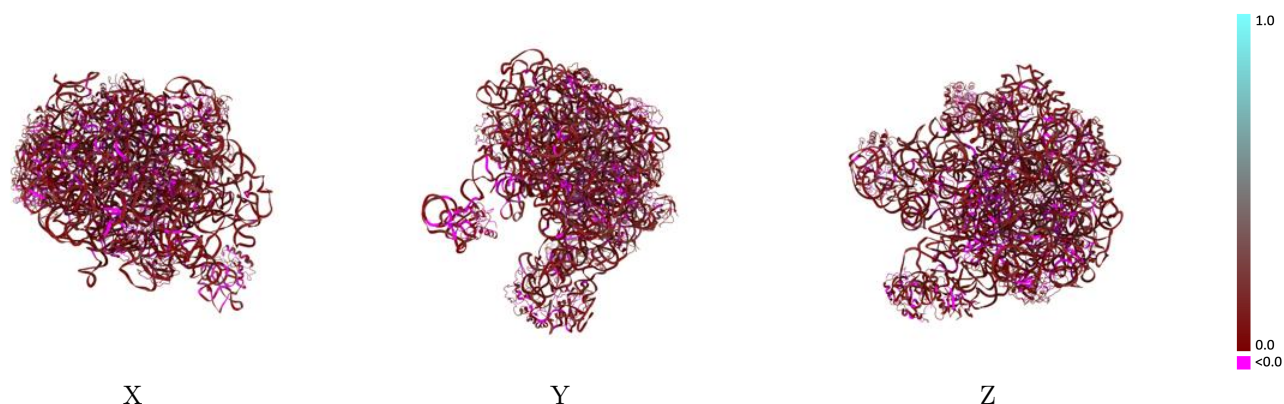
Y



Z

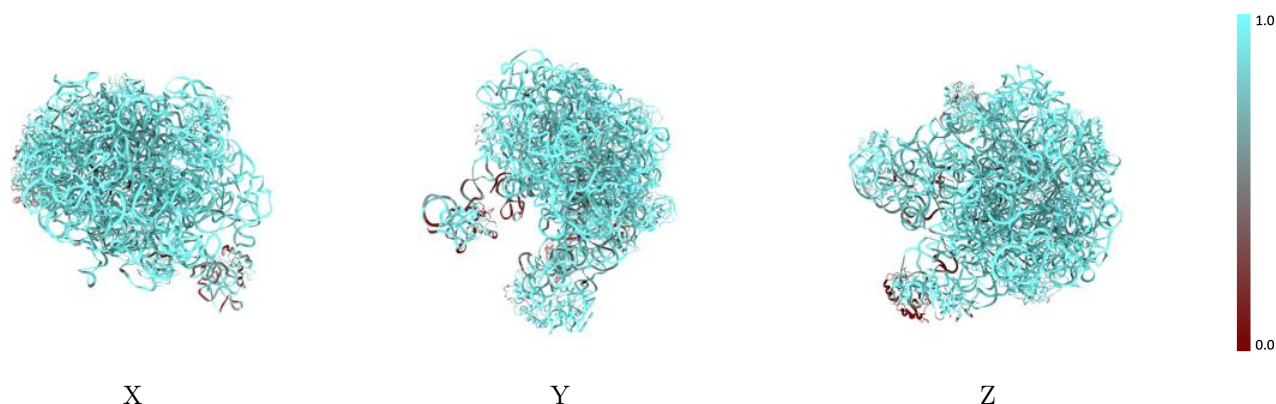
The images above show the 3D surface view of the map at the recommended contour level 2.7 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

## 9.2 Q-score mapped to coordinate model [i](#)



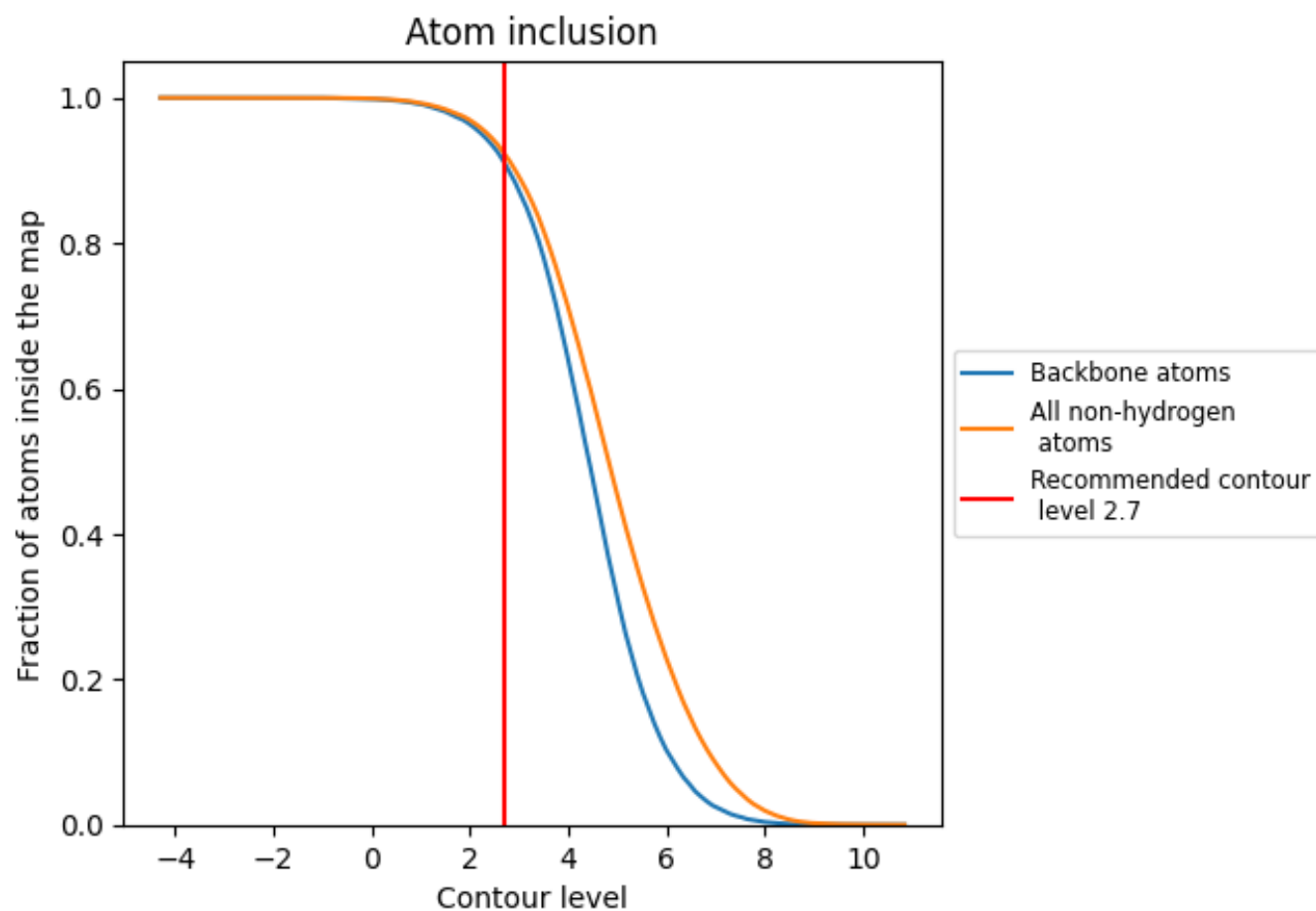
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

## 9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (2.7).



















































## 9.4 Atom inclusion [i](#)



At the recommended contour level, 91% of all backbone atoms, 92% of all non-hydrogen atoms, are inside the map.

## 9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (2.7) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9229	 0.0810
0	 0.9476	 0.0410
2	 1.0000	 0.0160
5	 0.6233	 0.0580
6	 0.2031	 0.0410
A	 0.9362	 0.0910
B	 0.8525	 0.0870
C	 0.9604	 0.0350
D	 0.9663	 0.0560
E	 0.9694	 0.0560
F	 0.8475	 0.0720
G	 0.8844	 0.0820
J	 0.9576	 0.0420
K	 0.9365	 0.0590
L	 0.9125	 0.0420
N	 1.0000	 0.0510
O	 0.9279	 0.0730
P	 0.9125	 0.0450
Q	 0.9670	 0.0250
R	 0.9796	 0.0700
S	 0.9680	 0.0470
T	 0.9906	 0.0490
U	 0.9547	 0.0470
X	 0.9918	 0.0830
Y	 0.7494	 0.0410

