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Figure DR1. Representative petrographic photos for the mafic sills. (A–B) Mediumgrained diabase from sill #17PF in the Xuzhou region. (A) Thin section under plane-polarized light (PPL) and (B) same thin section under cross-polarized light (XPL). The diabase sill displays diabasic texture. The major mineral assemblage is clinopyroxene and plagioclase. Some plagioclase has experienced sericitization alteration. (C–D) Coarse- to medium-grained diabase from sill #16DL in the Dalian region. The diabase sill displays typical diabasic texture with a mineral assemblage of clinopyroxene and plagioclase. Most plagioclase has experienced sericitization and some clinopyroxene was altered to chlorite and biotite.

Figure DR2. Stereoplots (equal area, lower-hemisphere projection) of anisotropy of magnetic susceptibility (AMS) principal axes of the sedimentary rocks: K1/K2/K3 (maximum/intermediate/minimum principal axes of the AMS ellipsoids) and crossplots of lineation (L) versus foliation (F).

Figure DR3. Cathodoluminescence (CL) images of representative detrital zircons for U-Pb dating analyses. White circles indicate the laser ablation–inductively coupled plasma–mass spectrometry (LA-ICP-MS) analytical spots for U-Pb dating (diameters of 25 microns). Numbers with errors are zircon ages (Ma).

Figure DR4. U-Pb concordia diagrams and age patterns for detrital zircons separated from the following rock units in the Dalian and Huainan regions, eastern North China Craton. (A) Sandstone of the Diaoyutai Formation (Fm) (18DY01-1) sampled from Shuanggou section in the Lushun area, southern Dalian region. (B) Sandstone of the Diaoyutai Fm (18DY04-1) sampled from northwest Xiyang in the Wafangdian area, northern Dalian region. (C) Sandstone of the Qiaotou Fm (16QT01B) sampled from east Fuzhoucheng in the Wafangdian area, northern Dalian region. (D) Sandstone of the Shouxian Fm (17SX04) sampled near Lichong town in the Huainan region. For age younger than 1500 Ma, the 206Pb/238U age is used, whereas the 207Pb/206Pb age is used for zircon with ages older than 1500 Ma. Data-point error crosses are 1 sigma. The errors on averages of multiple analyses are given at the 95% confidence level. MSWD—mean square of weighted deviates. Probability density plots—PDPs (dashed lines; Ludwig, 2003); kernel density estimates—KDEs (solid lines; Vermeesch, 2012).

Figure DR5. Equal area projections of the low temperature (or coercivity) components isolated from the following rock units. (A) The Nanfen Formation (Fm) in the Benxi region; (B) the Nanfen Fm in the Dalian region; (C) the Xinxing Fm in the Xuzhou region; (D) the Liulaobei Fm in the Huainan region; (E) sill #15XZ; (F) sill #17LT; (G) sill #17PF; (H) baked dolostone of the

Niyuan Fm; (I) unbaked dolostone of the Niyuan Fm; (J) sill #15DL; (K) sill #16DL. All projections are in geographic coordinates. Closed (open) circles represent downward/upward pointing magnetizations. Star with 95% confidence circle indicates Fisher statistic direction. D—declination; I—inclination; 95—radius of 95% confidence cone of the mean direction; n—specimen number; k—precise parameter.

TABLE DR1. LA-ICP-MS DETRITAL ZIRCON U-Pb DATA FROM THE DIAOYUTAI AND QIAOTOU FORMATIONS IN THE DALIAN REGION, AND THE SHOUXIAN FORMATION IN THE HUAINAN REGION

TABLE DR2. SIMS ZIRCON U-Pb DATA FROM THE EARLY NEOPROTEROZOIC MAFIC SILLS IN THE XUZHOU AND DALIAN REGIONS

TABLE DR3. CHARACTERISTIC REMANENT MAGNETIZATION (ChRM) DIRECTIONS FOR THIS STUDY

TABLE DR1. LA-ICP-MS DETRITAL ZIRCON U-Pb DATA FROM THE DIAOYUTAI AND QIAOTOU FORMATIONS IN THE DALIAN REGION, AND THE SHOUXIAN FORMATION IN THE HUAINAN REGION

Sample spot	Th (ppm)	U (ppm)	Th/U	$^{207}Pb/^{206}Pb$ Ratio	1σ	$^{207}Pb/^{235}U$ Ratio	1σ	$^{206}Pb/^{238}U$ Ratio	1σ	$^{207}Pb/^{206}Pb$ (Ma)	1σ (Ma)	$^{207}Pb/^{235}U$ (Ma)	1σ (Ma)	$^{206}Pb/^{238}U$ (Ma)	1σ (Ma)	Concordance
18DY01-1: quartz sandstone of the Diaoyutai Formation in the Lushun area, Dalian region, GPS: 38.767°N, 121.147°E																
18DY01-1-01	82	99	0.83	0.0968	0.0016	3.6939	0.0726	0.2771	0.0040	1563	31	1570	16	1577	20	99%
18DY01-1-02	76	92	0.82	0.0981	0.0019	3.6240	0.0852	0.2678	0.0038	1589	40	1555	19	1529	19	98%
~~18DY01-1-03~~	~~127~~	~~197~~	~~0.65~~	~~0.3212~~	~~0.0193~~	~~13.6475~~	~~1.0740~~	~~0.2897~~	~~0.0095~~	~~3576~~	~~93~~	~~2726~~	~~75~~	~~1640~~	~~47~~	~~50%~~
18DY01-1-04	125	152	0.82	0.1065	0.0015	4.6247	0.0932	0.3149	0.0051	1743	25	1754	17	1765	25	99%
18DY01-1-05	143	125	1.15	0.1087	0.0018	4.9040	0.0949	0.3273	0.0038	1777	31	1803	16	1826	18	98%
~~18DY01-1-06~~	~~128~~	~~544~~	~~0.24~~	~~0.0946~~	~~0.0015~~	~~2.8860~~	~~0.1997~~	~~0.2172~~	~~0.0144~~	~~1520~~	~~25~~	~~1378~~	~~52~~	~~1267~~	~~76~~	~~91%~~
18DY01-1-07	201	117	1.72	0.1014	0.0017	4.0993	0.0841	0.2931	0.0036	1650	31	1654	17	1657	18	99%
18DY01-1-08	54	75	0.72	0.1110	0.0023	4.9828	0.1137	0.3260	0.0043	1817	38	1816	19	1819	21	99%
18DY01-1-09	104	152	0.68	0.0998	0.0017	4.0355	0.0892	0.2932	0.0043	1620	31	1641	18	1658	21	99%
18DY01-1-10	47	101	0.46	0.1057	0.0020	4.5331	0.1056	0.3110	0.0047	1728	35	1737	19	1746	23	99%
18DY01-1-11	92	224	0.41	0.0993	0.0018	4.0553	0.0814	0.2962	0.0034	1613	39	1645	16	1673	17	98%
18DY01-1-12	182	215	0.85	0.0812	0.0019	2.1108	0.0435	0.1901	0.0036	1228	42	1152	14	1122	19	97%
~~18DY01-1-13~~	~~146~~	~~156~~	~~0.93~~	~~0.1084~~	~~0.0040~~	~~3.1622~~	~~0.1753~~	~~0.2080~~	~~0.0048~~	~~1773~~	~~67~~	~~1448~~	~~43~~	~~1218~~	~~26~~	~~82%~~
18DY01-1-14	290	502	0.58	0.1018	0.0013	4.1541	0.0566	0.2959	0.0030	1658	24	1665	11	1671	15	99%
18DY01-1-15	138	114	1.21	0.0965	0.0018	3.6578	0.0748	0.2748	0.0031	1567	33	1562	16	1565	16	99%
18DY01-1-16	153	222	0.69	0.0946	0.0016	3.4669	0.0563	0.2659	0.0025	1521	33	1520	13	1520	13	99%
18DY01-1-17	153	261	0.59	0.0786	0.0015	2.2332	0.0419	0.2062	0.0021	1161	37	1192	13	1209	11	98%
18DY01-1-18	74	106	0.70	0.0936	0.0023	3.1938	0.0923	0.2469	0.0033	1500	46	1456	22	1423	17	97%
18DY01-1-19	107	134	0.80	0.0996	0.0021	3.9528	0.0887	0.2877	0.0035	1617	39	1625	18	1630	18	99%
18DY01-1-20	144	174	0.83	0.0989	0.0017	3.8695	0.0745	0.2834	0.0029	1603	31	1607	16	1609	15	99%
18DY01-1-21	176	297	0.59	0.0809	0.0016	2.3050	0.0524	0.2062	0.0025	1220	38	1214	16	1209	13	99%
18DY01-1-22	124	242	0.51	0.0972	0.0015	3.9112	0.0815	0.2910	0.0036	1572	229	1616	17	1646	18	98%
~~18DY01-1-23~~	~~47~~	~~79~~	~~0.59~~	~~0.0918~~	~~0.0025~~	~~2.8321~~	~~0.0956~~	~~0.2226~~	~~0.0034~~	~~1465~~	~~52~~	~~1364~~	~~25~~	~~1296~~	~~18~~	~~94%~~
18DY01-1-24	139	193	0.72	0.0798	0.0014	2.1475	0.0552	0.1945	0.0032	1192	31	1164	18	1146	17	98%
~~18DY01-1-25~~	~~84~~	~~173~~	~~0.49~~	~~0.0948~~	~~0.0025~~	~~3.3023~~	~~0.2151~~	~~0.2430~~	~~0.0138~~	~~1524~~	~~49~~	~~1482~~	~~51~~	~~1402~~	~~71~~	~~94%~~

~~18DY01-1-26~~	~~75~~	~~136~~	~~0.55~~	~~0.1120~~	~~0.0033~~	~~3.5276~~	~~0.0924~~	~~0.2296~~	~~0.0035~~	~~1832~~	~~48~~	~~1533~~	~~21~~	~~1333~~	~~19~~	~~85%~~
18DY01-1-27	91	114	0.80	0.0972	0.0021	3.8645	0.0818	0.2888	0.0039	1572	40	1606	17	1635	20	98%
18DY01-1-28	103	181	0.57	0.0932	0.0016	3.1775	0.0772	0.2466	0.0040	1494	32	1452	19	1421	21	97%
18DY01-1-29	117	169	0.69	0.0805	0.0020	2.2673	0.0630	0.2047	0.0036	1209	48	1202	20	1200	19	99%
18DY01-1-30	93	161	0.57	0.1057	0.0018	4.5522	0.1103	0.3116	0.0049	1728	31	1741	20	1749	24	99%
18DY01-1-31	92	116	0.80	0.0780	0.0021	2.2554	0.0593	0.2102	0.0029	1147	52	1198	18	1230	15	97%
18DY01-1-32	86	129	0.67	0.1107	0.0027	4.8028	0.2097	0.3105	0.0075	1810	45	1785	37	1743	37	97%
18DY01-1-33	95	110	0.86	0.1016	0.0020	4.1426	0.0970	0.2955	0.0046	1655	41	1663	19	1669	23	99%
18DY01-1-34	49	274	0.18	0.1148	0.0015	5.5543	0.0997	0.3510	0.0058	1877	24	1909	15	1940	28	98%
18DY01-1-35	77	314	0.24	0.0911	0.0013	3.0719	0.0585	0.2443	0.0031	1448	27	1426	15	1409	16	98%
18DY01-1-36	187	288	0.65	0.0779	0.0015	2.1776	0.0525	0.2027	0.0033	1146	39	1174	17	1190	18	98%
18DY01-1-37	107	215	0.50	0.1165	0.0017	5.1334	0.1236	0.3189	0.0061	1906	27	1842	20	1784	30	96%
18DY01-1-38	228	277	0.82	0.0981	0.0018	3.8136	0.0808	0.2818	0.0040	1589	39	1596	17	1600	20	99%
18DY01-1-39	220	465	0.47	0.0958	0.0013	3.7005	0.0583	0.2801	0.0039	1546	25	1571	13	1592	20	98%
18DY01-1-40	388	348	1.12	0.0783	0.0012	2.0399	0.0348	0.1888	0.0020	1154	30	1129	12	1115	11	98%
18DY01-1-41	145	682	0.21	0.1082	0.0015	4.7621	0.0807	0.3189	0.0045	1770	24	1778	14	1784	22	99%
18DY01-1-42	118	151	0.78	0.0955	0.0016	3.5275	0.0668	0.2677	0.0036	1539	31	1533	15	1529	18	99%
18DY01-1-43	152	211	0.72	0.0947	0.0014	3.3735	0.0575	0.2582	0.0036	1524	28	1498	13	1481	18	98%
18DY01-1-44	79	214	0.37	0.1056	0.0016	4.4828	0.0816	0.3076	0.0044	1726	28	1728	15	1729	22	99%
18DY01-1-45	128	115	1.11	0.0743	0.0020	2.0755	0.0679	0.2017	0.0030	1050	54	1141	22	1184	16	96%
18DY01-1-46	91	161	0.56	0.0836	0.0015	2.7595	0.0685	0.2389	0.0037	1283	31	1345	18	1381	19	97%
~~18DY01-1-47~~	~~163~~	~~404~~	~~0.40~~	~~0.1006~~	~~0.0014~~	~~3.0012~~	~~0.1065~~	~~0.2152~~	~~0.0061~~	~~1635~~	~~26~~	~~1408~~	~~27~~	~~1256~~	~~32~~	~~88%~~
18DY01-1-48	77	92	0.83	0.0996	0.0024	3.8213	0.1183	0.2772	0.0043	1617	44	1597	25	1577	22	98%
18DY01-1-49	68	125	0.54	0.0981	0.0019	3.6658	0.0764	0.2709	0.0038	1589	37	1564	17	1546	19	98%
18DY01-1-50	126	124	1.01	0.0974	0.0023	3.6218	0.0915	0.2695	0.0038	1576	43	1554	20	1538	19	98%
~~18DY01-1-51~~	~~135~~	~~145~~	~~0.93~~	~~0.0919~~	~~0.0023~~	~~2.2782~~	~~0.0632~~	~~0.1795~~	~~0.0026~~	~~1465~~	~~47~~	~~1206~~	~~20~~	~~1064~~	~~14~~	~~87%~~
18DY01-1-52	98	147	0.66	0.0996	0.0022	3.8549	0.0902	0.2803	0.0030	1617	41	1604	19	1593	15	99%
18DY01-1-53	199	285	0.70	0.0992	0.0015	3.9770	0.0812	0.2909	0.0053	1609	25	1630	17	1646	26	99%
18DY01-1-54	135	135	1.00	0.0960	0.0019	3.6979	0.0950	0.2787	0.0047	1548	37	1571	21	1585	24	99%
18DY01-1-55	85	111	0.76	0.0767	0.0017	2.1412	0.0471	0.2026	0.0028	1115	13	1162	15	1189	15	97%
18DY01-1-56	128	220	0.58	0.0992	0.0017	3.8102	0.0829	0.2778	0.0039	1610	26	1595	17	1580	20	99%

~~18DY01-1-57~~	~~238~~	~~917~~	~~0.26~~	~~0.0946~~	~~0.0041~~	~~1.0958~~	~~0.0507~~	~~0.0843~~	~~0.0024~~	~~1520~~	~~82~~	~~751~~	~~25~~	~~522~~	~~14~~	~~63%~~
18DY01-1-58	96	135	0.71	0.0969	0.0022	3.6076	0.0776	0.2706	0.0041	1565	42	1551	17	1544	21	99%
18DY01-1-59	191	179	1.07	0.1111	0.0019	5.0398	0.1734	0.3275	0.0091	1818	31	1826	29	1826	44	99%
18DY01-1-60	270	260	1.04	0.1019	0.0016	3.9658	0.0857	0.2815	0.0046	1661	28	1627	18	1599	23	98%
18DY01-1-61	163	234	0.70	0.1043	0.0014	3.9540	0.0828	0.2743	0.0036	1702	24	1625	17	1563	18	96%
18DY01-1-62	109	229	0.48	0.1053	0.0010	4.3426	0.0691	0.2992	0.0040	1720	17	1701	13	1687	20	99%
18DY01-1-63	137	197	0.70	0.0967	0.0009	3.5392	0.0671	0.2654	0.0048	1562	21	1536	15	1518	24	98%
~~18DY01-1-64~~	~~79~~	~~318~~	~~0.25~~	~~0.1122~~	~~0.0011~~	~~4.3898~~	~~0.0727~~	~~0.2842~~	~~0.0045~~	~~1835~~	~~18~~	~~1710~~	~~14~~	~~1612~~	~~23~~	~~94%~~
18DY01-1-65	408	400	1.02	0.0760	0.0008	2.0002	0.0341	0.1907	0.0026	1096	22	1116	12	1125	14	99%
18DY01-1-66	503	487	1.03	0.0976	0.0007	3.6445	0.0577	0.2710	0.0044	1589	15	1559	13	1546	22	99%
18DY01-1-67	258	645	0.40	0.1073	0.0009	4.9462	0.1053	0.3342	0.0069	1755	15	1810	18	1859	33	97%
18DY01-1-68	3	621	0.00	0.0797	0.0007	2.1138	0.0288	0.1924	0.0023	1191	16	1153	9	1134	13	98%
18DY01-1-69	771	873	0.88	0.0773	0.0007	1.8717	0.0524	0.1751	0.0044	1129	19	1071	19	1040	24	97%
18DY01-1-70	78	108	0.72	0.0988	0.0017	3.8855	0.0835	0.2855	0.0043	2000	32	1611	17	1619	22	99%
18DY01-1-71	180	350	0.52	0.1090	0.0010	4.6757	0.0823	0.3110	0.0048	1783	16	1763	15	1746	24	99%
18DY01-1-72	130	185	0.70	0.0804	0.0013	2.1979	0.0446	0.1984	0.0026	1206	33	1180	14	1167	14	98%
18DY01-1-73	114	186	0.62	0.1015	0.0011	4.0893	0.0741	0.2919	0.0040	1652	20	1652	15	1651	20	99%
18DY01-1-74	257	375	0.68	0.0998	0.0007	3.9859	0.0448	0.2896	0.0030	1621	13	1631	9	1640	15	99%
18DY01-1-75	109	135	0.81	0.0984	0.0013	4.0674	0.0797	0.2995	0.0043	1594	26	1648	16	1689	21	97%
18DY01-1-76	361	563	0.64	0.1041	0.0008	4.3820	0.0541	0.3053	0.0034	1698	19	1709	10	1718	17	99%
18DY01-1-77	112	179	0.62	0.2116	0.0016	16.6750	0.2020	0.5719	0.0068	2918	12	2916	12	2915	28	99%
18DY01-1-78	78	101	0.77	0.0975	0.0015	3.7918	0.0701	0.2821	0.0033	1576	29	1591	15	1602	17	99%
18DY01-1-79	76	137	0.55	0.1031	0.0011	3.8877	0.0568	0.2734	0.0027	1680	19	1611	12	1558	14	96%
18DY01-1-80	417	601	0.69	0.0789	0.0008	2.0276	0.0310	0.1865	0.0026	1169	20	1125	10	1102	14	97%
18DY01-1-81	11	163	0.07	0.0982	0.0014	3.3992	0.0623	0.2508	0.0029	1591	26	1504	14	1443	15	95%
18DY01-1-82	163	318	0.51	0.0926	0.0009	3.2654	0.0878	0.2548	0.0058	1480	19	1473	21	1463	30	99%
18DY01-1-83	394	329	1.20	0.0792	0.0009	2.0674	0.0354	0.1892	0.0026	1177	23	1138	12	1117	14	98%
18DY01-1-84	73	80	0.92	0.1062	0.0015	4.2935	0.0703	0.2933	0.0036	1735	26	1692	13	1658	18	97%
18DY01-1-85	202	179	1.13	0.0978	0.0012	3.5427	0.0647	0.2625	0.0037	1583	22	1537	14	1502	19	97%
18DY01-1-86	79	96	0.83	0.0995	0.0012	3.6598	0.0648	0.2665	0.0038	1617	24	1563	14	1523	19	97%
~~18DY01-1-87~~	~~165~~	~~200~~	~~0.82~~	~~0.1046~~	~~0.0017~~	~~3.8787~~	~~0.0894~~	~~0.2680~~	~~0.0035~~	~~1707~~	~~30~~	~~1609~~	~~19~~	~~1531~~	~~18~~	~~94%~~

~~18DY01-1-88~~	~~176~~	~~302~~	~~0.58~~	~~0.2889~~	~~0.0217~~	~~16.9394~~	~~2.2870~~	~~0.3696~~	~~0.0189~~	~~3413~~	~~112~~	~~2931~~	~~130~~	~~2027~~	~~89~~	~~63%~~
18DY01-1-89	75	111	0.67	0.0974	0.0014	3.5288	0.0587	0.2628	0.0035	1576	225	1534	13	1504	18	98%
18DY01-1-90	131	139	0.95	0.0791	0.0014	2.1697	0.0487	0.1987	0.0029	1174	34	1171	16	1168	15	99%
18DY01-1-91	151	175	0.86	0.0979	0.0011	3.7349	0.0546	0.2767	0.0035	1584	22	1579	12	1575	18	99%
18DY01-1-92	71	64	1.11	0.1015	0.0017	4.0755	0.0844	0.2911	0.0043	1654	31	1649	17	1647	22	99%
18DY01-1-93	84	235	0.36	0.1086	0.0012	4.7562	0.0789	0.3171	0.0042	1776	15	1777	14	1776	21	99%
18DY01-1-94	112	182	0.62	0.0995	0.0012	3.5805	0.0631	0.2607	0.0036	1617	23	1545	14	1493	19	96%
18DY01-1-95	285	327	0.87	0.0937	0.0010	3.2016	0.0476	0.2479	0.0032	1502	21	1458	12	1428	16	97%
18DY01-1-96	269	394	0.68	0.0806	0.0008	2.1889	0.0410	0.1969	0.0032	1213	21	1178	13	1158	17	98%
18DY01-1-97	89	144	0.62	0.0983	0.0010	3.6910	0.0784	0.2721	0.0052	1592	18	1569	17	1552	26	98%
18DY01-1-98	94	133	0.71	0.0989	0.0012	3.7350	0.0636	0.2738	0.0033	1606	24	1579	14	1560	17	98%
18DY01-1-99	2	514	0.00	0.0799	0.0008	2.1447	0.0364	0.1946	0.0027	1194	19	1163	12	1146	15	98%
18DY01-1-100	59	164	0.36	0.1074	0.0015	4.5664	0.0891	0.3083	0.0045	1767	25	1743	16	1733	22	99%
18DY01-1-101	104	160	0.65	0.1013	0.0014	3.8058	0.0827	0.2723	0.0044	1650	21	1594	17	1553	22	97%
18DY01-1-102	143	148	0.97	0.1028	0.0012	3.8780	0.0682	0.2739	0.0039	1676	22	1609	14	1560	20	96%
18DY01-1-103	57	99	0.57	0.0961	0.0012	3.3371	0.0587	0.2520	0.0035	1550	22	1490	14	1449	18	97%
18DY01-1-104	165	283	0.58	0.1005	0.0009	3.8351	0.0585	0.2770	0.0039	1635	16	1600	12	1576	20	98%
18DY01-1-105	162	163	1.00	0.0886	0.0011	2.9228	0.0441	0.2396	0.0028	1396	24	1388	11	1385	15	99%
18DY01-1-106	169	220	0.77	0.1004	0.0012	3.8483	0.0655	0.2783	0.0041	1632	22	1603	14	1583	21	98%
18DY01-1-107	186	270	0.69	0.0973	0.0009	3.6167	0.0610	0.2698	0.0041	1573	18	1553	13	1540	21	99%
18DY01-1-108	74	113	0.66	0.0955	0.0016	3.2338	0.0958	0.2457	0.0059	1539	33	1465	23	1416	31	96%
18DY01-1-109	82	69	1.19	0.0833	0.0019	2.2042	0.0517	0.1924	0.0025	1276	44	1182	16	1135	14	95%
18DY01-1-110	123	181	0.68	0.0989	0.0012	3.6480	0.0648	0.2677	0.0039	1603	23	1560	14	1529	20	98%
18DY01-1-111	200	304	0.66	0.1089	0.0011	4.7117	0.0742	0.3139	0.0042	1781	18	1769	13	1760	20	99%
18DY01-1-112	576	679	0.85	0.1009	0.0009	4.0350	0.0547	0.2900	0.0035	1643	16	1641	11	1642	18	99%
18DY01-1-113	161	248	0.65	0.0968	0.0009	3.4757	0.0574	0.2605	0.0037	1563	17	1522	13	1492	19	98%
18DY01-1-114	169	243	0.70	0.1030	0.0015	4.1136	0.1016	0.2887	0.0047	1680	26	1657	20	1635	24	98%
18DY01-1-115	75	218	0.35	0.1086	0.0013	4.6469	0.0959	0.3103	0.0051	1776	22	1758	17	1742	25	99%
18DY01-1-116	107	186	0.58	0.1022	0.0011	4.4190	0.0828	0.3132	0.0046	1665	14	1716	16	1756	23	97%
18DY01-1-117	139	315	0.44	0.1083	0.0010	4.8040	0.0745	0.3215	0.0039	1772	18	1786	13	1797	19	99%
18DY01-1-118	159	210	0.76	0.1026	0.0011	4.1100	0.0662	0.2903	0.0038	1673	19	1656	13	1643	19	99%

18DY01-1-119	136	199	0.69	0.0805	0.0013	2.3109	0.0514	0.2082	0.0033	1209	31	1216	16	1219	18	99%
18DY01-1-120	191	181	1.06	0.0980	0.0014	3.8104	0.0703	0.2819	0.0037	1587	26	1595	15	1601	18	99%
18DY01-1-121	252	404	0.62	0.0985	0.0010	3.8034	0.0633	0.2797	0.0038	1596	12	1593	13	1590	19	99%
18DY01-1-122	114	144	0.79	0.0916	0.0018	3.1520	0.0628	0.2497	0.0024	1458	37	1445	15	1437	12	99%
18DY01-1-123	169	158	1.07	0.0980	0.0012	3.5724	0.0577	0.2643	0.0029	1587	23	1543	13	1512	15	97%
18DY01-1-124	212	370	0.57	0.0809	0.0008	2.3064	0.0385	0.2067	0.0027	1218	20	1214	12	1211	14	99%
18DY01-1-125	153	134	1.15	0.0965	0.0013	3.7251	0.0723	0.2796	0.0038	1558	26	1577	16	1590	19	99%
18DY01-1-126	113	178	0.64	0.0942	0.0013	3.2119	0.0621	0.2473	0.0038	1522	25	1460	15	1425	20	97%
18DY01-1-127	196	155	1.27	0.0802	0.0016	2.0822	0.0520	0.1897	0.0031	1203	38	1143	17	1119	17	97%
18DY01-1-128	134	149	0.89	0.1028	0.0014	4.1153	0.0753	0.2905	0.0044	1676	26	1657	15	1644	22	99%
18DY01-1-129	159	147	1.08	0.0989	0.0013	3.7322	0.0690	0.2734	0.0035	1603	19	1578	15	1558	18	98%
18DY01-1-130	134	208	0.64	0.0810	0.0011	2.1724	0.0423	0.1945	0.0030	1221	28	1172	14	1146	16	97%
18DY01-1-131	292	337	0.87	0.1051	0.0017	4.1314	0.1275	0.2828	0.0051	1717	31	1661	25	1606	26	96%
~~18DY01-1-132~~	~~762~~	~~752~~	~~1.01~~	~~0.1155~~	~~0.0020~~	~~3.4866~~	~~0.0898~~	~~0.2182~~	~~0.0039~~	~~1888~~	~~31~~	~~1524~~	~~20~~	~~1272~~	~~20~~	~~81%~~
18DY01-1-133	325	464	0.70	0.1012	0.0009	3.7469	0.0632	0.2681	0.0036	1647	16	1581	14	1531	19	96%
18DY01-1-134	357	415	0.86	0.0935	0.0010	3.0610	0.0399	0.2375	0.0025	1498	19	1423	10	1374	13	96%
18DY01-1-135	106	279	0.38	0.0852	0.0011	2.7030	0.0492	0.2299	0.0032	1321	24	1329	13	1334	17	99%
18DY01-1-136	98	146	0.67	0.1091	0.0015	4.6166	0.0826	0.3069	0.0042	1784	25	1752	15	1726	21	98%
18DY01-1-137	117	200	0.58	0.0950	0.0011	3.5551	0.0682	0.2709	0.0040	1528	21	1540	15	1545	20	99%
18DY01-1-138	160	291	0.55	0.0971	0.0010	3.7027	0.0494	0.2764	0.0028	1569	20	1572	11	1573	14	99%
~~18DY01-1-139~~	~~296~~	~~341~~	~~0.87~~	~~0.0996~~	~~0.0009~~	~~3.6926~~	~~0.0486~~	~~0.2688~~	~~0.0032~~	~~1617~~	~~183~~	~~1570~~	~~11~~	~~1535~~	~~16~~	~~97%~~
18DY01-1-140	272	276	0.99	0.0969	0.0009	3.6892	0.0543	0.2762	0.0038	1565	18	1569	12	1572	19	99%
18DY01-1-141	41	77	0.53	0.0922	0.0015	3.1279	0.0700	0.2459	0.0041	1472	30	1440	17	1417	21	98%
18DY01-1-142	89	107	0.83	0.1007	0.0017	3.7585	0.0704	0.2707	0.0031	1639	36	1584	15	1544	16	97%
18DY04-1: quartz sandstone of the Diaoyutai formation in the Wafangdian area, Dalian region, GPS: 39.847°N, 121.644°E																
18DY04-1-01	358	395	0.91	0.0955	0.0009	3.7361	0.0464	0.2837	0.0028	1539	23	1579	10	1610	14	98%
18DY04-1-02	254	190	1.34	0.1024	0.0011	4.0422	0.0899	0.2863	0.0054	1678	20	1643	18	1623	27	98%
18DY04-1-03	144	162	0.89	0.0795	0.0010	2.2320	0.0385	0.2036	0.0026	1185	24	1191	12	1195	14	99%
18DY04-1-04	96	97	0.99	0.0789	0.0012	2.2208	0.0379	0.2045	0.0025	1169	30	1188	12	1200	13	98%
18DY04-1-05	155	253	0.61	0.1000	0.0008	4.0662	0.0501	0.2949	0.0028	1633	15	1648	10	1666	14	98%
18DY04-1-06	218	375	0.58	0.0997	0.0009	4.1072	0.0697	0.2988	0.0048	1620	16	1656	14	1686	24	98%

18DY04-1-07	275	299	0.92	0.0970	0.0008	3.6958	0.0588	0.2764	0.0040	1569	16	1570	13	1573	20	99%
18DY04-1-08	195	413	0.47	0.0941	0.0007	3.4450	0.0445	0.2654	0.0028	1511	15	1515	10	1517	14	99%
18DY04-1-09	61	126	0.48	0.2361	0.0017	20.0178	0.2154	0.6150	0.0058	3094	11	3092	10	3090	23	99%
18DY04-1-10	160	285	0.56	0.0932	0.0009	3.2896	0.0487	0.2560	0.0029	1492	18	1479	12	1469	15	99%
18DY04-1-11	306	573	0.53	0.1006	0.0008	4.0171	0.0504	0.2895	0.0027	1635	15	1638	10	1639	14	99%
18DY04-1-12	128	190	0.67	0.1096	0.0010	4.9384	0.0586	0.3270	0.0031	1792	17	1809	10	1824	15	99%
18DY04-1-13	99	378	0.26	0.1137	0.0009	5.2524	0.0796	0.3349	0.0042	1859	9	1861	13	1862	20	99%
18DY04-1-14	173	178	0.97	0.0989	0.0010	4.0441	0.0507	0.2967	0.0024	1603	25	1643	10	1675	12	98%
18DY04-1-15	190	205	0.93	0.0973	0.0010	3.8365	0.0523	0.2861	0.0029	1573	19	1600	11	1622	15	98%
18DY04-1-16	208	309	0.67	0.0972	0.0008	3.7556	0.0419	0.2803	0.0022	1570	17	1583	9	1593	11	99%
18DY04-1-17	70	116	0.60	0.0996	0.0012	3.8807	0.0586	0.2824	0.0029	1618	22	1610	12	1603	14	99%
18DY04-1-18	365	658	0.55	0.0972	0.0008	3.7187	0.0422	0.2775	0.0022	1570	16	1575	9	1579	11	99%
18DY04-1-19	173	259	0.67	0.1027	0.0010	4.1453	0.0631	0.2926	0.0035	1674	17	1663	12	1654	17	99%
18DY04-1-20	79	89	0.89	0.1120	0.0015	5.1418	0.0714	0.3334	0.0033	1832	24	1843	12	1855	16	99%
18DY04-1-21	160	177	0.91	0.0800	0.0011	2.3309	0.0436	0.2116	0.0033	1198	27	1222	13	1237	17	98%
18DY04-1-22	121	182	0.67	0.0806	0.0010	2.1777	0.0309	0.1960	0.0019	1213	25	1174	10	1154	10	98%
18DY04-1-23	164	213	0.77	0.0994	0.0009	3.8515	0.0438	0.2809	0.0023	1613	17	1604	9	1596	11	99%
18DY04-1-24	368	558	0.66	0.0906	0.0007	3.0544	0.0469	0.2443	0.0032	1439	10	1421	12	1409	16	99%
18DY04-1-25	109	241	0.45	0.1091	0.0009	4.7055	0.0602	0.3127	0.0035	1785	21	1768	11	1754	17	99%
18DY04-1-26	198	298	0.66	0.0810	0.0009	2.2592	0.0385	0.2026	0.0031	1220	22	1200	12	1189	17	99%
18DY04-1-27	192	261	0.74	0.0795	0.0009	2.2378	0.0329	0.2040	0.0019	1185	22	1193	10	1197	10	99%
18DY04-1-28	242	514	0.47	0.1096	0.0010	4.8258	0.0644	0.3192	0.0035	1794	16	1789	11	1786	17	99%
18DY04-1-29	162	215	0.75	0.0820	0.0014	2.2618	0.0511	0.1996	0.0023	1256	34	1200	16	1173	13	97%
18DY04-1-30	81	67	1.21	0.0785	0.0014	2.1593	0.0431	0.1995	0.0022	1161	35	1168	14	1173	12	99%
18DY04-1-31	163	128	1.27	0.1068	0.0012	4.6654	0.0718	0.3166	0.0036	1746	22	1761	13	1773	18	99%
18DY04-1-32	190	299	0.63	0.0969	0.0009	3.6262	0.0430	0.2713	0.0023	1565	18	1555	9	1547	12	99%
18DY04-1-33	325	427	0.76	0.0998	0.0009	3.8445	0.0531	0.2793	0.0034	1621	16	1602	11	1588	17	99%
18DY04-1-34	350	460	0.76	0.0977	0.0008	3.6228	0.0458	0.2687	0.0028	1583	16	1555	10	1534	14	98%
~~18DY04-1-35~~	~~165~~	~~262~~	~~0.63~~	~~0.0978~~	~~0.0010~~	~~3.6275~~	~~0.0701~~	~~0.2685~~	~~0.0041~~	~~1583~~	~~218~~	~~1556~~	~~15~~	~~1533~~	~~21~~	~~98%~~
18DY04-1-36	84	263	0.32	0.0809	0.0008	2.1794	0.0304	0.1953	0.0021	1218	20	1174	10	1150	11	97%
18DY04-1-37	124	287	0.43	0.1107	0.0009	4.8625	0.0681	0.3184	0.0042	1813	16	1796	12	1782	20	99%

18DY04-1-38	275	539	0.51	0.0994	0.0009	3.7384	0.0565	0.2726	0.0034	1613	17	1580	12	1554	17	98%
18DY04-1-39	203	217	0.93	0.0806	0.0011	2.1787	0.0435	0.1955	0.0024	1213	26	1174	14	1151	13	97%
~~18DY04-1-40~~	~~240~~	~~289~~	~~0.83~~	~~0.1024~~	~~0.0011~~	~~3.5412~~	~~0.0460~~	~~0.2507~~	~~0.0025~~	~~1678~~	~~19~~	~~1536~~	~~10~~	~~1442~~	~~13~~	~~93%~~
18DY04-1-41	146	244	0.60	0.1008	0.0009	4.0907	0.0558	0.2948	0.0033	1639	17	1652	11	1665	17	99%
18DY04-1-42	116	126	0.93	0.1103	0.0013	4.8590	0.0820	0.3195	0.0035	1806	21	1795	14	1787	17	99%
18DY04-1-43	101	153	0.66	0.1007	0.0010	4.1276	0.0532	0.2978	0.0029	1636	19	1660	11	1680	14	98%
18DY04-1-44	225	384	0.59	0.0951	0.0008	3.5097	0.0517	0.2678	0.0034	1529	16	1529	12	1530	17	99%
18DY04-1-45	103	180	0.57	0.1070	0.0010	4.7235	0.0678	0.3204	0.0038	1750	16	1771	12	1792	18	98%
18DY04-1-46	112	121	0.92	0.1155	0.0012	5.3871	0.0815	0.3387	0.0043	1887	19	1883	13	1880	21	99%
18DY04-1-47	52	84	0.61	0.0837	0.0021	2.3536	0.0696	0.2034	0.0021	1285	49	1229	21	1194	11	97%
18DY04-1-48	371	462	0.80	0.0758	0.0008	2.1004	0.0317	0.2010	0.0025	1100	20	1149	10	1181	13	97%
~~18DY04-1-49~~	~~287~~	~~398~~	~~0.72~~	~~0.0978~~	~~0.0010~~	~~3.8310~~	~~0.0537~~	~~0.2842~~	~~0.0033~~	~~1583~~	~~218~~	~~1599~~	~~11~~	~~1612~~	~~17~~	~~99%~~
18DY04-1-50	242	302	0.80	0.1052	0.0011	4.6826	0.0734	0.3228	0.0042	1718	20	1764	13	1804	20	97%
18DY04-1-51	253	318	0.80	0.0927	0.0009	3.2908	0.0449	0.2576	0.0030	1483	20	1479	11	1477	15	99%
18DY04-1-52	325	519	0.63	0.0978	0.0009	3.7160	0.0554	0.2755	0.0036	1583	17	1575	12	1569	18	99%
18DY04-1-53	72	216	0.33	0.1083	0.0010	4.6927	0.0635	0.3141	0.0033	1772	18	1766	11	1761	16	99%
18DY04-1-54	190	318	0.60	0.1012	0.0009	4.0890	0.0768	0.2930	0.0051	1656	15	1652	15	1656	25	99%
18DY04-1-55	237	159	1.49	0.0763	0.0010	2.0750	0.0356	0.1971	0.0025	1106	25	1141	12	1160	13	98%
18DY04-1-56	159	144	1.10	0.1026	0.0018	4.0766	0.1200	0.2862	0.0046	1672	33	1650	24	1623	23	98%
18DY04-1-57	42	66	0.64	0.1122	0.0016	4.9747	0.0792	0.3221	0.0041	1836	25	1815	13	1800	20	99%
18DY04-1-58	49	124	0.40	0.0974	0.0012	3.8246	0.0643	0.2848	0.0037	1576	23	1598	14	1615	18	98%
18DY04-1-59	163	197	0.83	0.0962	0.0010	3.5967	0.0562	0.2711	0.0036	1554	20	1549	12	1546	18	99%
18DY04-1-60	291	486	0.60	0.1067	0.0009	4.7956	0.0694	0.3259	0.0041	1744	17	1784	12	1818	20	98%
18DY04-1-61	360	485	0.74	0.1017	0.0009	4.1917	0.0597	0.2987	0.0035	1657	17	1672	12	1685	17	99%
18DY04-1-62	274	112	2.45	0.0783	0.0011	2.2263	0.0393	0.2061	0.0021	1154	30	1189	12	1208	11	98%
18DY04-1-63	104	228	0.46	0.1009	0.0009	4.0911	0.0492	0.2941	0.0031	1640	12	1653	10	1662	15	99%
18DY04-1-64	232	734	0.32	0.1035	0.0008	4.5253	0.0596	0.3166	0.0035	1689	13	1736	11	1773	17	97%
18DY04-1-65	198	551	0.36	0.0813	0.0007	2.2980	0.0273	0.2048	0.0021	1229	21	1212	8	1201	11	99%
18DY04-1-66	100	70	1.43	0.1034	0.0013	4.2580	0.0588	0.2986	0.0029	1687	24	1685	11	1684	14	99%
18DY04-1-67	217	257	0.84	0.0793	0.0009	2.1041	0.0331	0.1923	0.0025	1189	50	1150	11	1134	13	98%
18DY04-1-68	252	444	0.57	0.0974	0.0009	3.7760	0.0499	0.2808	0.0031	1576	14	1588	11	1595	16	99%

18DY04-1-69	381	406	0.94	0.0996	0.0009	3.9658	0.0557	0.2884	0.0034	1617	18	1627	11	1633	17	99%
18DY04-1-70	123	275	0.45	0.1087	0.0011	4.5846	0.0638	0.3054	0.0035	1789	20	1746	12	1718	17	98%
18DY04-1-71	271	120	2.26	0.1672	0.0015	10.8515	0.1570	0.4698	0.0057	2531	16	2510	13	2483	25	98%
18DY04-1-72	132	275	0.48	0.1073	0.0010	4.5195	0.0657	0.3050	0.0040	1755	17	1735	12	1716	20	98%
18DY04-1-73	196	149	1.31	0.1062	0.0012	4.4222	0.0619	0.3018	0.0034	1735	25	1717	12	1700	17	99%
18DY04-1-74	191	439	0.44	0.1093	0.0009	4.5275	0.0834	0.2999	0.0050	1788	15	1736	15	1691	25	97%
18DY04-1-75	171	237	0.72	0.0971	0.0011	3.3277	0.0707	0.2478	0.0043	1569	20	1488	17	1427	22	95%
18DY04-1-76	93	142	0.65	0.0807	0.0011	2.1963	0.0357	0.1974	0.0022	1213	26	1180	11	1161	12	98%
18DY04-1-77	76	87	0.87	0.0798	0.0014	2.1156	0.0445	0.1924	0.0026	1192	31	1154	15	1135	14	98%
18DY04-1-78	223	242	0.92	0.0933	0.0008	3.2500	0.0397	0.2526	0.0027	1494	17	1469	9	1452	14	98%
~~18DY04-1-79~~	~~250~~	~~216~~	~~1.16~~	~~0.0997~~	~~0.0009~~	~~3.7884~~	~~0.0522~~	~~0.2754~~	~~0.0031~~	~~1620~~	~~182~~	~~1590~~	~~11~~	~~1568~~	~~16~~	~~98%~~
~~18DY04-1-80~~	~~77~~	~~164~~	~~0.47~~	~~0.0978~~	~~0.0010~~	~~3.6889~~	~~0.0550~~	~~0.2734~~	~~0.0032~~	~~1583~~	~~218~~	~~1569~~	~~12~~	~~1558~~	~~16~~	~~99%~~
18DY04-1-81	450	837	0.54	0.1125	0.0008	4.9900	0.0893	0.3212	0.0049	1840	13	1818	15	1796	24	98%
18DY04-1-82	121	380	0.32	0.1083	0.0008	4.6438	0.0617	0.3110	0.0037	1772	9	1757	11	1746	18	99%
18DY04-1-83	597	651	0.92	0.1034	0.0007	4.3141	0.0523	0.3027	0.0035	1687	13	1696	10	1705	17	99%
18DY04-1-84	191	388	0.49	0.1074	0.0008	4.7906	0.0733	0.3231	0.0039	1767	15	1783	13	1805	19	98%
18DY04-1-85	265	250	1.06	0.0986	0.0009	3.8717	0.0493	0.2848	0.0028	1598	17	1608	10	1616	14	99%
18DY04-1-86	140	199	0.70	0.1088	0.0011	4.4691	0.0596	0.2981	0.0035	1789	19	1725	11	1682	17	97%
18DY04-1-87	91	228	0.40	0.0814	0.0009	2.4064	0.0360	0.2143	0.0024	1231	20	1245	11	1252	13	99%
18DY04-1-88	114	150	0.76	0.0943	0.0011	3.4506	0.0490	0.2652	0.0023	1517	21	1516	11	1516	12	99%
~~18DY04-1-89~~	~~309~~	~~393~~	~~0.79~~	~~0.0984~~	~~0.0009~~	~~3.5438~~	~~0.0499~~	~~0.2610~~	~~0.0025~~	~~1594~~	~~18~~	~~1537~~	~~11~~	~~1495~~	~~13~~	~~97%~~
18DY04-1-90	81	164	0.50	0.0852	0.0010	2.7654	0.0516	0.2354	0.0033	1320	23	1346	14	1363	17	98%
18DY04-1-91	266	658	0.40	0.0817	0.0009	2.3848	0.0385	0.2116	0.0024	1239	21	1238	12	1238	13	99%
18DY04-1-92	107	166	0.65	0.1067	0.0015	4.2125	0.0935	0.2853	0.0038	1744	25	1676	18	1618	19	96%
18DY04-1-93	160	320	0.50	0.1053	0.0011	4.4890	0.0637	0.3096	0.0038	1720	20	1729	12	1739	19	99%
18DY04-1-94	349	433	0.81	0.1038	0.0009	4.4803	0.0595	0.3132	0.0034	1692	15	1727	11	1756	17	98%
18DY04-1-95	476	732	0.65	0.0782	0.0009	1.9738	0.0379	0.1830	0.0026	1152	22	1107	13	1083	14	97%
~~18DY04-1-96~~	~~225~~	~~350~~	~~0.64~~	~~0.0763~~	~~0.0015~~	~~1.8192~~	~~0.0397~~	~~0.1728~~	~~0.0014~~	~~1103~~	~~38~~	~~1052~~	~~14~~	~~1028~~	~~8~~	~~97%~~
18DY04-1-97	146	184	0.79	0.0785	0.0010	2.1568	0.0430	0.1991	0.0030	1161	21	1167	14	1171	16	99%
18DY04-1-98	201	283	0.71	0.1022	0.0009	4.0874	0.0598	0.2900	0.0036	1665	16	1652	12	1642	18	99%
18DY04-1-99	172	261	0.66	0.0992	0.0008	3.8546	0.0593	0.2817	0.0036	1609	15	1604	12	1600	18	99%

18DY04-1-100	115	103	1.11	0.0971	0.0012	3.4496	0.0594	0.2578	0.0032	1569	23	1516	14	1478	16	97%
18DY04-1-101	150	312	0.48	0.0964	0.0010	3.5328	0.0562	0.2658	0.0032	1555	15	1535	13	1520	16	99%
16QT01B: quartz sandstone of the Qiaotou formation in the Wafangdian area, Dalian region, GPS: 39.744°N, 121.802°E																
16QT01B-01	100	121	0.83	0.0985	0.0012	3.8278	0.0613	0.2816	0.0031	1596	24	1599	13	1599	15	99%
16QT01B-02	68	104	0.65	0.0875	0.0012	2.9626	0.0514	0.2457	0.0030	1372	27	1398	13	1416	16	98%
16QT01B-03	111	97	1.14	0.0791	0.0011	2.1860	0.0316	0.2005	0.0018	1176	28	1177	10	1178	10	99%
16QT01B-04	78	136	0.57	0.1025	0.0011	4.3253	0.0674	0.3058	0.0037	1672	21	1698	13	1720	18	98%
16QT01B-05	114	194	0.59	0.1148	0.0012	5.3803	0.0638	0.3402	0.0035	1876	19	1882	10	1888	17	99%
~~16QT01B-06~~	~~196~~	~~246~~	~~0.80~~	~~0.0853~~	~~0.0019~~	~~2.2416~~	~~0.0499~~	~~0.1908~~	~~0.0019~~	~~1321~~	~~44~~	~~1194~~	~~16~~	~~1126~~	~~10~~	~~94%~~
16QT01B-07	26	142	0.18	0.1025	0.0013	4.3440	0.0646	0.3073	0.0037	1672	23	1702	12	1728	18	98%
16QT01B-08	196	277	0.71	0.0987	0.0010	4.0489	0.0595	0.2975	0.0039	2000	20	1644	12	1679	19	97%
16QT01B-09	86	115	0.74	0.0991	0.0014	3.9329	0.0672	0.2879	0.0036	1607	28	1620	14	1631	18	99%
~~16QT01B-10~~	~~480~~	~~558~~	~~0.86~~	~~0.1134~~	~~0.0013~~	~~3.5114~~	~~0.0516~~	~~0.2253~~	~~0.0037~~	~~1855~~	~~21~~	~~1530~~	~~12~~	~~1310~~	~~19~~	~~84%~~
16QT01B-11	211	165	1.28	0.0780	0.0011	2.2020	0.0362	0.2045	0.0022	1148	28	1182	11	1200	12	98%
16QT01B-12	104	102	1.02	0.0799	0.0017	2.0507	0.0413	0.1869	0.0028	1195	41	1133	14	1105	15	97%
16QT01B-13	152	153	0.99	0.0796	0.0010	2.1793	0.0318	0.1987	0.0022	1187	25	1174	10	1168	12	99%
16QT01B-14	146	180	0.81	0.0806	0.0009	2.2658	0.0353	0.2039	0.0024	1211	24	1202	11	1196	13	99%
16QT01B-15	143	153	0.93	0.1004	0.0011	4.0601	0.0636	0.2928	0.0030	1632	21	1646	13	1656	15	99%
16QT01B-16	44	86	0.51	0.1039	0.0013	4.2231	0.0609	0.2950	0.0032	1695	24	1679	12	1666	16	99%
16QT01B-17	87	140	0.62	0.1001	0.0011	4.0054	0.0586	0.2900	0.0031	1628	21	1635	12	1642	16	99%
16QT01B-18	137	228	0.60	0.0781	0.0008	2.0496	0.0286	0.1903	0.0021	1150	21	1132	10	1123	11	99%
16QT01B-19	42	60	0.69	0.1017	0.0017	4.1488	0.0772	0.2961	0.0033	1655	26	1664	15	1672	16	99%
16QT01B-20	127	173	0.74	0.0800	0.0011	2.3191	0.0372	0.2102	0.0021	1198	31	1218	11	1230	11	99%
16QT01B-21	140	154	0.91	0.0789	0.0011	2.1296	0.0318	0.1959	0.0019	1169	26	1158	10	1153	10	99%
16QT01B-22	131	115	1.14	0.0981	0.0012	3.7901	0.0491	0.2802	0.0025	1591	21	1591	10	1593	12	99%
16QT01B-23	121	152	0.79	0.0988	0.0011	3.8525	0.0587	0.2825	0.0029	2000	19	1604	12	1604	15	99%
16QT01B-24	68	94	0.72	0.0992	0.0016	3.8592	0.0627	0.2827	0.0030	1610	25	1605	13	1605	15	99%
16QT01B-25	121	137	0.88	0.0911	0.0011	3.1997	0.0407	0.2549	0.0020	1450	22	1457	10	1463	11	99%
16QT01B-26	248	300	0.83	0.0985	0.0010	3.9780	0.0471	0.2930	0.0028	1598	20	1630	10	1657	14	98%
16QT01B-27	136	186	0.73	0.1661	0.0015	11.4120	0.1562	0.4986	0.0061	2520	48	2557	13	2608	26	98%
16QT01B-28	225	292	0.77	0.1125	0.0016	4.5952	0.0628	0.2988	0.0055	1843	25	1748	11	1685	27	96%

16QT01B-29	115	165	0.70	0.1004	0.0012	4.1138	0.0528	0.2975	0.0026	1631	22	1657	10	1679	13	98%
16QT01B-30	108	45	2.39	0.0779	0.0019	2.0938	0.0513	0.1953	0.0020	1146	47	1147	17	1150	11	99%
16QT01B-31	44	75	0.59	0.0874	0.0014	2.8080	0.0498	0.2329	0.0022	1370	30	1358	13	1350	11	99%
16QT01B-32	76	88	0.87	0.0984	0.0016	3.7509	0.0652	0.2769	0.0028	1594	31	1582	14	1576	14	99%
16QT01B-33	93	129	0.72	0.0777	0.0010	2.1945	0.0307	0.2049	0.0019	1139	25	1179	10	1202	10	98%
16QT01B-34	83	84	0.99	0.0995	0.0016	3.9858	0.0723	0.2908	0.0032	1617	35	1631	15	1645	16	99%
16QT01B-35	119	154	0.77	0.1010	0.0012	3.8144	0.0536	0.2742	0.0030	1643	21	1596	11	1562	15	97%
16QT01B-36	251	270	0.93	0.0976	0.0010	3.7762	0.0510	0.2808	0.0029	1589	20	1588	11	1595	15	99%
16QT01B-37	178	225	0.79	0.0965	0.0009	3.6943	0.0458	0.2782	0.0033	1567	19	1570	10	1582	17	99%
16QT01B-38	105	146	0.72	0.0974	0.0010	3.8109	0.0513	0.2839	0.0031	1576	14	1595	11	1611	16	99%
16QT01B-39	167	201	0.83	0.0803	0.0009	2.2309	0.0397	0.2014	0.0029	1206	22	1191	12	1183	15	99%
16QT01B-40	66	119	0.55	0.0987	0.0012	3.8848	0.0638	0.2851	0.0036	2000	28	1611	13	1617	18	99%
16QT01B-41	148	175	0.85	0.0985	0.0009	3.7035	0.0571	0.2729	0.0038	1595	12	1572	12	1555	19	98%
16QT01B-42	143	160	0.90	0.0987	0.0012	3.8213	0.0596	0.2810	0.0037	2000	22	1597	13	1597	18	99%
16QT01B-43	161	238	0.67	0.0785	0.0009	2.1616	0.0394	0.1998	0.0031	1161	22	1169	13	1174	17	99%
16QT01B-44	67	70	0.96	0.1042	0.0015	4.2584	0.0778	0.2967	0.0040	1700	26	1685	15	1675	20	99%
16QT01B-45	108	164	0.66	0.1008	0.0012	3.7543	0.0684	0.2703	0.0042	1639	22	1583	15	1542	21	97%
16QT01B-46	254	170	1.49	0.0807	0.0012	2.1222	0.0467	0.1906	0.0030	1214	29	1156	15	1125	16	97%
16QT01B-47	143	253	0.56	0.1999	0.0018	14.6738	0.2411	0.5331	0.0086	2826	15	2794	16	2754	36	98%
16QT01B-48	159	388	0.41	0.1092	0.0012	4.0188	0.0899	0.2665	0.0050	1787	19	1638	18	1523	25	92%
16QT01B-49	144	109	1.32	0.1055	0.0015	4.2991	0.0775	0.2956	0.0036	1724	26	1693	15	1669	18	98%
16QT01B-50	153	272	0.56	0.0975	0.0010	3.9105	0.0778	0.2907	0.0049	1577	16	1616	16	1645	24	98%
16QT01B-51	47	129	0.37	0.0876	0.0013	2.7467	0.0452	0.2276	0.0021	1373	33	1341	12	1322	11	98%
16QT01B-52	159	276	0.58	0.1080	0.0011	4.7323	0.0654	0.3179	0.0034	1766	19	1773	12	1780	17	99%
16QT01B-53	89	91	0.98	0.0997	0.0015	3.8273	0.0649	0.2786	0.0029	1618	32	1599	14	1584	15	99%
16QT01B-54	87	134	0.65	0.1025	0.0013	4.0932	0.0603	0.2897	0.0027	1669	23	1653	12	1640	14	99%
16QT01B-55	71	111	0.64	0.0805	0.0012	2.2261	0.0406	0.2005	0.0022	1209	25	1189	13	1178	12	99%
16QT01B-56	126	205	0.62	0.1081	0.0011	4.8106	0.0615	0.3228	0.0031	1769	17	1787	11	1803	15	99%
16QT01B-57	78	96	0.80	0.0802	0.0014	2.2675	0.0458	0.2046	0.0020	1203	34	1202	14	1200	11	99%
16QT01B-58	93	154	0.60	0.1018	0.0011	4.2495	0.0610	0.3024	0.0028	1658	20	1684	12	1703	14	98%
16QT01B-59	149	196	0.76	0.0791	0.0009	2.2503	0.0313	0.2061	0.0018	1176	23	1197	10	1208	10	99%

16QT01B-60	126	171	0.74	0.0981	0.0011	3.8668	0.0604	0.2854	0.0034	1591	20	1607	13	1619	17	99%
16QT01B-61	83	129	0.64	0.0995	0.0013	4.0215	0.0638	0.2929	0.0033	1617	24	1639	13	1656	16	98%
16QT01B-62	107	225	0.48	0.0943	0.0011	3.4250	0.0483	0.2636	0.0033	1515	22	1510	11	1508	17	99%
16QT01B-63	105	158	0.66	0.0811	0.0013	2.2545	0.0415	0.2016	0.0024	1233	31	1198	13	1184	13	98%
16QT01B-64	147	230	0.64	0.0981	0.0011	3.8054	0.0522	0.2813	0.0029	1587	20	1594	11	1598	15	99%
16QT01B-65	126	158	0.80	0.0969	0.0013	3.8152	0.0597	0.2855	0.0031	1566	26	1596	13	1619	16	98%
16QT01B-66	193	438	0.44	0.1100	0.0009	4.8019	0.0642	0.3166	0.0041	1800	16	1785	11	1773	20	99%
16QT01B-67	158	205	0.77	0.0810	0.0012	2.2906	0.0458	0.2048	0.0023	1221	30	1209	14	1201	13	99%
16QT01B-68	81	119	0.68	0.0787	0.0012	2.2502	0.0361	0.2078	0.0023	1165	31	1197	11	1217	12	98%
16QT01B-69	99	145	0.68	0.0802	0.0012	2.2936	0.0402	0.2074	0.0021	1267	30	1210	12	1215	11	99%
16QT01B-70	186	210	0.89	0.0813	0.0013	2.1868	0.0328	0.1959	0.0025	1228	33	1177	10	1153	13	97%
16QT01B-71	180	181	0.99	0.0987	0.0020	3.6789	0.0860	0.2701	0.0033	1600	37	1567	19	1541	17	98%
16QT01B-72	118	164	0.72	0.0995	0.0012	3.8636	0.0579	0.2817	0.0028	1615	24	1606	12	1600	14	99%
16QT01B-73	234	323	0.73	0.1003	0.0011	3.9330	0.0565	0.2845	0.0033	1631	21	1620	12	1614	17	99%
16QT01B-74	126	156	0.81	0.0786	0.0011	2.0918	0.0347	0.1930	0.0018	1161	22	1146	11	1138	10	99%
~~16QT01B-75~~	~~197~~	~~299~~	~~0.66~~	~~0.1151~~	~~0.0010~~	~~5.3705~~	~~0.0692~~	~~0.3384~~	~~0.0038~~	~~1883~~	~~18~~	~~1880~~	~~11~~	~~1879~~	~~18~~	~~99%~~
16QT01B-76	121	178	0.68	0.0806	0.0010	2.2267	0.0343	0.2003	0.0020	1213	24	1189	11	1177	11	98%
16QT01B-77	129	187	0.69	0.0804	0.0011	2.2436	0.0394	0.2025	0.0023	1207	23	1195	12	1189	12	99%
16QT01B-78	214	216	0.99	0.1004	0.0011	4.0149	0.0649	0.2902	0.0036	1631	21	1637	13	1643	18	99%
16QT01B-79	67	152	0.44	0.1139	0.0012	5.3820	0.0758	0.3431	0.0040	1863	19	1882	12	1901	19	98%
16QT01B-80	97	162	0.60	0.1076	0.0013	4.7473	0.0784	0.3201	0.0034	1759	23	1776	14	1790	17	99%
16QT01B-81	176	228	0.77	0.0968	0.0012	3.5390	0.0565	0.2652	0.0029	1565	22	1536	13	1516	15	98%
16QT01B-82	82	97	0.85	0.0978	0.0015	3.8154	0.0616	0.2834	0.0026	1583	28	1596	13	1609	13	99%
16QT01B-83	58	141	0.41	0.0920	0.0013	3.1847	0.0512	0.2514	0.0026	1533	27	1453	12	1446	13	99%
16QT01B-84	135	142	0.96	0.0997	0.0012	3.8797	0.0574	0.2824	0.0026	1618	23	1609	12	1603	13	99%
16QT01B-85	184	246	0.75	0.0969	0.0009	3.7207	0.0391	0.2786	0.0023	1566	17	1576	8	1585	12	99%
16QT01B-86	239	229	1.05	0.0980	0.0010	3.7478	0.0572	0.2773	0.0032	1587	19	1582	12	1578	16	99%
16QT01B-87	114	208	0.55	0.1089	0.0010	4.9066	0.0614	0.3271	0.0035	1781	17	1803	11	1824	17	98%
16QT01B-88	153	163	0.94	0.1128	0.0011	4.8569	0.0504	0.3125	0.0023	1856	17	1795	9	1753	11	97%
16QT01B-89	142	184	0.77	0.0985	0.0011	3.7847	0.0615	0.2788	0.0039	1598	20	1590	13	1585	20	99%
16QT01B-90	238	209	1.14	0.0835	0.0011	2.2032	0.0308	0.1914	0.0016	1283	24	1182	10	1129	9	95%

16QT01B-91	72	103	0.70	0.0782	0.0014	2.1210	0.0383	0.1968	0.0017	1154	35	1156	12	1158	9	99%
16QT01B-92	144	178	0.81	0.0808	0.0012	2.2495	0.0418	0.2019	0.0024	1217	34	1197	13	1186	13	99%
~~16QT01B-93~~	~~210~~	~~308~~	~~0.68~~	~~0.4416~~	~~0.0194~~	~~26.1678~~	~~2.1933~~	~~0.3968~~	~~0.0184~~	~~4057~~	~~65~~	~~3353~~	~~82~~	~~2154~~	~~85~~	~~56%~~
16QT01B-94	157	185	0.85	0.0793	0.0011	2.1427	0.0360	0.1958	0.0020	1181	27	1163	12	1153	11	99%
16QT01B-95	102	120	0.84	0.0979	0.0012	3.8464	0.0605	0.2851	0.0034	1585	24	1603	13	1617	17	99%
16QT01B-96	61	78	0.78	0.0771	0.0015	2.1013	0.0447	0.1978	0.0023	1125	39	1149	15	1164	12	98%
16QT01B-97	117	159	0.74	0.0814	0.0010	2.3876	0.0403	0.2126	0.0026	1231	23	1239	12	1243	14	99%
16QT01B-98	105	216	0.49	0.1150	0.0012	5.4099	0.0824	0.3412	0.0040	1880	18	1886	13	1893	19	99%
16QT01B-99	100	164	0.61	0.0896	0.0012	2.9086	0.0486	0.2356	0.0027	1417	26	1384	13	1364	14	98%
16QT01B-100	176	240	0.74	0.0997	0.0011	3.6805	0.0523	0.2677	0.0026	1618	21	1567	11	1529	13	97%
16QT01B-101	68	93	0.73	0.0975	0.0013	3.7498	0.0626	0.2788	0.0026	1576	26	1582	13	1585	13	99%
16QT01B-102	92	137	0.67	0.1668	0.0016	11.3476	0.1492	0.4934	0.0053	2526	16	2552	12	2585	23	98%
16QT01B-103	151	251	0.60	0.0995	0.0011	4.1462	0.0618	0.3022	0.0035	1617	21	1663	12	1702	17	97%
16QT01B-104	284	215	1.32	0.0784	0.0010	2.1428	0.0277	0.1984	0.0019	1167	25	1163	9	1167	10	99%
16QT01B-105	104	154	0.68	0.0987	0.0014	3.9073	0.0719	0.2874	0.0040	2000	27	1615	15	1629	20	99%
16QT01B-106	103	145	0.71	0.1152	0.0012	5.5754	0.0779	0.3510	0.0036	1883	19	1912	12	1939	17	98%
16QT01B-107	96	157	0.61	0.0823	0.0012	2.4405	0.0484	0.2147	0.0025	1254	24	1255	14	1254	13	99%
16QT01B-108	164	256	0.64	0.0794	0.0010	2.2638	0.0411	0.2069	0.0031	1181	19	1201	13	1212	17	99%
16QT01B-109	364	284	1.28	0.0877	0.0014	2.5240	0.0347	0.2101	0.0034	1376	30	1279	10	1229	18	96%
16QT01B-110	114	206	0.55	0.0996	0.0010	3.9806	0.0525	0.2898	0.0027	1617	19	1630	11	1641	14	99%
16QT01B-111	119	211	0.56	0.0916	0.0011	3.1494	0.0430	0.2495	0.0026	1459	24	1445	11	1436	13	99%
16QT01B-112	137	172	0.80	0.0980	0.0013	3.9344	0.0594	0.2917	0.0038	1587	24	1621	12	1650	19	98%
16QT01B-113	144	329	0.44	0.1102	0.0010	4.9042	0.0679	0.3224	0.0033	1803	17	1803	12	1802	16	99%
16QT01B-114	120	245	0.49	0.0973	0.0010	3.7489	0.0447	0.2796	0.0026	1573	19	1582	10	1589	13	99%
~~16QT01B-115~~	~~118~~	~~173~~	~~0.68~~	~~0.1853~~	~~0.0150~~	~~9.6009~~	~~1.0202~~	~~0.3411~~	~~0.0098~~	~~2702~~	~~134~~	~~2397~~	~~98~~	~~1892~~	~~47~~	~~76%~~
16QT01B-116	166	98	1.70	0.0819	0.0012	2.3923	0.0427	0.2118	0.0023	1244	28	1240	13	1238	12	99%
16QT01B-117	47	150	0.31	0.1134	0.0012	5.4295	0.0759	0.3471	0.0032	1855	19	1890	12	1920	15	98%
16QT01B-118	150	203	0.74	0.0963	0.0011	3.8793	0.0584	0.2926	0.0037	1554	22	1609	12	1654	18	97%
16QT01B-119	169	156	1.08	0.0765	0.0011	2.2290	0.0399	0.2114	0.0025	1109	30	1190	13	1236	13	96%
16QT01B-120	149	157	0.95	0.0932	0.0012	3.4390	0.0542	0.2680	0.0032	1491	25	1513	12	1531	16	98%

17SX04: quartz sandstone of the Shouxian Formation in the Huainan region, GPS: 32.666°N, 116.736°E

17SX04-01	73.4	54.9	1.34	0.1001	0.0017	3.4986	0.0615	0.2541	0.0030	1626	31	1527	14	1459	16	95%
17SX04-02	118	108	1.09	0.0832	0.0012	2.3222	0.0547	0.2022	0.0037	1274	23	1219	17	1187	20	97%
17SX04-03	110	213	0.52	0.0834	0.0010	2.3778	0.0411	0.2064	0.0026	1280	22	1236	12	1210	14	97%
17SX04-04	54.9	75.9	0.72	0.0782	0.0017	1.9604	0.0535	0.1812	0.0023	1154	43	1102	18	1074	13	97%
17SX04-05	81.0	129	0.63	0.1155	0.0012	5.0921	0.0858	0.3193	0.0039	1887	18	1835	14	1786	19	97%
17SX04-06	61.9	117	0.53	0.0858	0.0013	2.5312	0.0444	0.2139	0.0025	1400	29	1281	13	1249	13	97%
17SX04-07	123	62.5	1.97	0.0792	0.0027	1.9195	0.0636	0.1760	0.0020	1177	68	1088	22	1045	11	95%
17SX04-08	91.2	92.7	0.98	0.0730	0.0014	1.5853	0.0316	0.1574	0.0014	1017	39	964	12	942	8	97%
17SX04-09	74.8	174	0.43	0.1073	0.0011	4.3159	0.0569	0.2916	0.0028	1754	13	1696	11	1649	14	97%
17SX04-10	95.0	84.6	1.12	0.0810	0.0013	2.0450	0.0377	0.1830	0.0019	1221	30	1131	13	1083	11	95%
17SX04-11	168	154	1.09	0.0991	0.0012	3.5489	0.0635	0.2601	0.0044	1609	23	1538	14	1490	22	96%
17SX04-12	93.4	153	0.61	0.0794	0.0012	2.0506	0.0336	0.1873	0.0020	1183	30	1132	11	1107	11	97%
17SX04-13	36.9	32.8	1.12	0.0804	0.0022	2.0272	0.0556	0.1833	0.0020	1207	54	1125	19	1085	11	96%
17SX04-14	87.4	73.7	1.19	0.0973	0.0011	3.5332	0.0542	0.2635	0.0031	1573	22	1535	12	1508	16	98%
17SX04-15	97.3	175	0.56	0.0930	0.0011	3.3087	0.0476	0.2580	0.0022	1488	29	1483	11	1480	11	99%
~~17SX04-16~~	~~127.3~~	~~80.8~~	~~1.57~~	~~0.0862~~	~~0.0020~~	~~2.0277~~	~~0.0478~~	~~0.1709~~	~~0.0017~~	~~1343~~	~~44~~	~~1125~~	~~16~~	~~1017~~	~~9~~	~~89%~~
17SX04-17	125	177	0.71	0.0944	0.0012	3.1645	0.0493	0.2430	0.0022	1517	22	1449	12	1402	12	96%
17SX04-18	117	118	0.99	0.0770	0.0013	1.9032	0.0352	0.1795	0.0019	1120	33	1082	12	1064	10	98%
17SX04-19	25.0	41.8	0.60	0.0953	0.0018	3.3039	0.0671	0.2518	0.0024	1544	36	1482	16	1448	12	97%
17SX04-20	61.7	105	0.59	0.0752	0.0011	1.8371	0.0337	0.1772	0.0020	1074	29	1059	12	1052	11	99%
17SX04-21	47.5	60.8	0.78	0.0742	0.0017	1.8387	0.0436	0.1801	0.0021	1056	40	1059	16	1067	11	99%
17SX04-22	117	148	0.79	0.1007	0.0011	3.7124	0.0900	0.2670	0.0055	1639	21	1574	19	1526	28	96%
17SX04-23	107	192	0.56	0.0953	0.0009	3.5547	0.0528	0.2709	0.0033	1533	19	1539	12	1545	17	99%
17SX04-24	250	134	1.87	0.1094	0.0012	4.8632	0.0779	0.3224	0.0036	1789	20	1796	13	1801	18	99%
17SX04-25	129	108	1.19	0.0843	0.0011	2.2771	0.0339	0.1961	0.0020	1302	27	1205	10	1154	11	95%
17SX04-26	242	280	0.86	0.0831	0.0009	2.1748	0.0302	0.1900	0.0018	1272	21	1173	10	1121	10	95%
17SX04-27	75.4	153	0.49	0.1313	0.0014	6.6660	0.0944	0.3686	0.0043	2117	17	2068	13	2023	20	97%
~~17SX04-28~~	~~57.8~~	~~148~~	~~0.39~~	~~0.0869~~	~~0.0017~~	~~2.2049~~	~~0.0496~~	~~0.1838~~	~~0.0021~~	~~1359~~	~~37~~	~~1183~~	~~16~~	~~1088~~	~~12~~	~~91%~~
17SX04-29	86.8	90.3	0.96	0.1010	0.0014	4.0802	0.0788	0.2933	0.0043	1643	31	1650	16	1658	21	99%
17SX04-30	195	179	1.09	0.1025	0.0011	4.0175	0.0535	0.2846	0.0032	1669	19	1638	11	1615	16	98%
~~17SX04-31~~	~~161~~	~~132~~	~~1.22~~	~~0.0959~~	~~0.0025~~	~~2.9147~~	~~0.0837~~	~~0.2200~~	~~0.0019~~	~~1546~~	~~48~~	~~1386~~	~~22~~	~~1282~~	~~10~~	~~92%~~

~~17SX04-32~~	~~247~~	~~193~~	~~1.28~~	~~0.0831~~	~~0.0011~~	~~2.0436~~	~~0.0296~~	~~0.1785~~	~~0.0019~~	~~1272~~	~~21~~	~~1130~~	~~10~~	~~1059~~	~~10~~	~~93%~~
17SX04-33	59.1	83.1	0.71	0.0771	0.0020	1.8231	0.0507	0.1715	0.0020	1124	52	1054	18	1021	11	96%
17SX04-34	39.2	63.8	0.61	0.0801	0.0016	2.0499	0.0445	0.1858	0.0020	1198	39	1132	15	1099	11	96%
17SX04-35	58.1	71.3	0.82	0.0820	0.0017	2.3164	0.0488	0.2052	0.0022	1256	39	1217	15	1203	12	98%
17SX04-36	120	154	0.78	0.0964	0.0011	3.5021	0.0564	0.2634	0.0030	1567	22	1528	13	1507	15	98%
17SX04-37	67.1	59.1	1.13	0.0986	0.0015	3.5313	0.0638	0.2598	0.0031	1598	29	1534	14	1489	16	96%
17SX04-38	85.3	146	0.58	0.0901	0.0010	3.0257	0.0450	0.2435	0.0025	1428	21	1414	11	1405	13	99%
17SX04-39	42.9	54.4	0.79	0.0790	0.0018	1.9414	0.0428	0.1787	0.0019	1172	44	1095	15	1060	11	96%
~~17SX04-40~~	~~280~~	~~273~~	~~1.02~~	~~0.0911~~	~~0.0011~~	~~2.4011~~	~~0.0438~~	~~0.1915~~	~~0.0032~~	~~1450~~	~~22~~	~~1243~~	~~13~~	~~1129~~	~~17~~	~~90%~~
17SX04-41	83.9	186	0.45	0.0764	0.0009	1.9060	0.0273	0.1812	0.0021	1106	24	1083	10	1074	11	99%
17SX04-42	57.1	154	0.37	0.0912	0.0012	3.1063	0.0455	0.2472	0.0027	1452	25	1434	11	1424	14	99%
17SX04-43	101	203	0.50	0.1063	0.0012	4.3117	0.0622	0.2941	0.0028	1739	21	1696	12	1662	14	97%
17SX04-44	129	154	0.84	0.0812	0.0013	2.0329	0.0407	0.1812	0.0018	1228	31	1127	14	1074	10	95%
17SX04-45	234	188	1.25	0.0995	0.0011	3.7417	0.0597	0.2728	0.0038	1617	21	1580	13	1555	19	98%
17SX04-46	74.1	172	0.43	0.0893	0.0011	2.9391	0.0541	0.2385	0.0034	1411	24	1392	14	1379	18	99%
~~17SX04-47~~	~~213~~	~~169~~	~~1.26~~	~~0.1087~~	~~0.0028~~	~~3.8358~~	~~0.0902~~	~~0.2564~~	~~0.0023~~	~~1789~~	~~47~~	~~1600~~	~~19~~	~~1471~~	~~12~~	~~91%~~
17SX04-48	91.9	101	0.91	0.0762	0.0018	1.6670	0.0368	0.1590	0.0017	1102	48	996	14	951	10	95%
17SX04-49	171	178	0.96	0.0813	0.0015	2.0226	0.0327	0.1810	0.0020	1228	37	1123	11	1072	11	95%
17SX04-50	94.6	48.2	1.96	0.0980	0.0017	3.4543	0.0691	0.2562	0.0038	1587	33	1517	16	1470	20	96%
17SX04-51	96.6	137	0.70	0.0909	0.0013	3.0474	0.0497	0.2437	0.0032	1444	27	1420	12	1406	17	99%
17SX04-52	77.1	91.3	0.84	0.0943	0.0015	3.0855	0.0561	0.2372	0.0026	1517	31	1429	14	1372	14	95%
17SX04-53	96.6	111	0.87	0.0977	0.0013	3.6004	0.0584	0.2676	0.0036	1580	25	1550	13	1529	18	98%
~~17SX04-54~~	~~121~~	~~163~~	~~0.74~~	~~0.0993~~	~~0.0014~~	~~3.3490~~	~~0.0593~~	~~0.2445~~	~~0.0032~~	~~1613~~	~~27~~	~~1493~~	~~14~~	~~1410~~	~~17~~	~~94%~~
17SX04-55	79.5	188	0.42	0.0907	0.0013	2.9022	0.0506	0.2321	0.0028	1440	60	1382	13	1346	14	97%
~~17SX04-56~~	~~43.2~~	~~44.7~~	~~0.96~~	~~0.0857~~	~~0.0025~~	~~2.1089~~	~~0.0656~~	~~0.1785~~	~~0.0024~~	~~1332~~	~~56~~	~~1152~~	~~21~~	~~1059~~	~~13~~	~~91%~~
17SX04-57	134	108	1.24	0.0880	0.0014	2.7110	0.0560	0.2231	0.0029	1383	31	1331	15	1298	15	97%
17SX04-58	145	96.3	1.51	0.0780	0.0015	1.9808	0.0493	0.1837	0.0023	1146	37	1109	17	1087	12	98%
17SX04-59	40.7	74.7	0.54	0.0926	0.0013	3.1877	0.0572	0.2496	0.0029	1480	27	1454	14	1436	15	98%
17SX04-60	83.7	123	0.68	0.0820	0.0012	2.2643	0.0457	0.1998	0.0023	1256	30	1201	14	1174	12	97%
17SX04-61	94.1	191	0.49	0.0762	0.0009	1.9270	0.0330	0.1835	0.0026	1099	24	1090	11	1086	14	99%
17SX04-62	117	298	0.39	0.0859	0.0014	2.4996	0.0410	0.2112	0.0026	1335	33	1272	12	1235	14	97%

17SX04-63	49.8	145	0.34	0.0784	0.0012	2.0158	0.0370	0.1864	0.0019	1167	31	1121	12	1102	11	98%
~~17SX04-64~~	~~70.3~~	~~228~~	~~0.31~~	~~0.1078~~	~~0.0013~~	~~4.0233~~	~~0.0713~~	~~0.2704~~	~~0.0037~~	~~1763~~	~~21~~	~~1639~~	~~14~~	~~1543~~	~~19~~	~~93%~~
17SX04-65	228	176	1.29	0.0982	0.0013	3.5820	0.0645	0.2642	0.0030	1591	26	1546	14	1511	15	97%
17SX04-66	94.5	170	0.56	0.0764	0.0013	1.7587	0.0317	0.1673	0.0022	1106	35	1030	12	997	12	96%
17SX04-67	239	265	0.90	0.1162	0.0011	4.9147	0.1062	0.3066	0.0061	1898	18	1805	18	1724	30	95%
17SX04-68	100	184	0.54	0.0785	0.0011	2.2175	0.0504	0.2044	0.0034	1161	28	1187	16	1199	18	98%
17SX04-69	45.6	81.3	0.56	0.0724	0.0016	1.6926	0.0422	0.1695	0.0021	998	44	1006	16	1009	12	99%
17SX04-70	107	99.7	1.07	0.0793	0.0014	2.0752	0.0414	0.1897	0.0020	1189	34	1141	14	1120	11	98%
17SX04-71	108	178	0.61	0.0993	0.0011	3.8842	0.0653	0.2835	0.0039	1613	20	1610	14	1609	20	99%
17SX04-72	88.2	144	0.61	0.0766	0.0011	1.9109	0.0351	0.1807	0.0019	1111	28	1085	12	1071	10	98%
17SX04-73	143	74.5	1.92	0.0794	0.0014	1.9844	0.0458	0.1810	0.0022	1181	35	1110	16	1073	12	96%
17SX04-74	101	195	0.52	0.1033	0.0011	4.2680	0.0785	0.2994	0.0046	1685	20	1687	15	1688	23	99%
17SX04-75	27.1	64.1	0.42	0.1145	0.0017	5.0101	0.0829	0.3176	0.0036	1873	21	1821	14	1778	17	97%
17SX04-76	55.5	160	0.35	0.0799	0.0010	2.2491	0.0389	0.2040	0.0024	1195	26	1197	12	1197	13	99%
17SX04-77	30.5	63.8	0.48	0.0909	0.0017	2.9599	0.0592	0.2362	0.0024	1456	36	1397	15	1367	12	97%
17SX04-78	53.5	93.6	0.57	0.0864	0.0016	2.5966	0.0552	0.2179	0.0023	1347	37	1300	16	1271	12	97%
17SX04-79	52.7	52.9	1.00	0.0753	0.0016	1.7880	0.0406	0.1724	0.0018	1076	44	1041	15	1025	10	98%
17SX04-80	82.1	108	0.76	0.0977	0.0015	3.5946	0.0573	0.2669	0.0022	1581	29	1548	13	1525	11	98%
17SX04-81	85.2	163	0.52	0.1052	0.0013	4.2195	0.0702	0.2911	0.0041	1718	22	1678	14	1647	20	98%
17SX04-82	111	256	0.43	0.0802	0.0009	2.1712	0.0344	0.1961	0.0021	1203	22	1172	11	1154	11	98%
17SX04-83	237	240	0.99	0.0784	0.0010	2.1163	0.0344	0.1956	0.0019	1167	26	1154	11	1152	10	99%
17SX04-84	104	137	0.76	0.0991	0.0012	3.7170	0.0608	0.2720	0.0032	1609	24	1575	13	1551	16	98%
17SX04-85	78.1	69.1	1.13	0.0955	0.0015	3.3518	0.0622	0.2543	0.0023	1539	30	1493	15	1461	12	97%
17SX04-86	88.0	92.6	0.95	0.0794	0.0014	1.9835	0.0352	0.1816	0.0021	1183	35	1110	12	1076	11	96%
17SX04-87	75.9	79.6	0.95	0.0775	0.0014	1.9491	0.0438	0.1824	0.0023	1133	38	1098	15	1080	13	98%
17SX04-88	108	86.3	1.25	0.1012	0.0017	3.7037	0.0699	0.2656	0.0028	1656	32	1572	15	1519	14	96%
17SX04-89	71.7	70.1	1.02	0.0861	0.0019	2.5782	0.0635	0.2171	0.0024	1343	43	1294	18	1266	13	97%
17SX04-90	76.7	90.4	0.85	0.0923	0.0016	3.2906	0.0594	0.2590	0.0030	1473	33	1479	14	1485	15	99%
17SX04-91	41.9	86.4	0.49	0.0849	0.0016	2.5008	0.0516	0.2135	0.0020	1322	37	1272	15	1248	11	98%
17SX04-92	72.9	113	0.64	0.1027	0.0014	4.0563	0.0672	0.2864	0.0033	1674	26	1646	14	1623	16	98%
17SX04-93	145	143	1.02	0.1671	0.0015	10.1384	0.1495	0.4402	0.0064	2529	15	2447	14	2351	28	95%

17SX04-94	85.7	152	0.57	0.0826	0.0012	2.3343	0.0375	0.2049	0.0024	1261	27	1223	11	1202	13	98%
17SX04-95	107	150	0.72	0.0995	0.0012	3.7280	0.0539	0.2715	0.0030	1617	22	1577	12	1548	15	98%
17SX04-96	132	255	0.52	0.0772	0.0009	2.0252	0.0322	0.1904	0.0028	1126	24	1124	11	1123	15	99%
17SX04-97	32.0	68.3	0.47	0.0939	0.0013	3.2029	0.0593	0.2466	0.0027	1506	26	1458	14	1421	14	97%
17SX04-98	70.1	133	0.53	0.0929	0.0012	3.2308	0.0515	0.2517	0.0028	1487	30	1465	12	1447	15	98%
17SX04-99	349	158	2.20	0.0977	0.0012	3.6553	0.0593	0.2709	0.0032	1580	18	1562	13	1545	16	98%
17SX04-100	83.1	170	0.49	0.0865	0.0010	2.5816	0.0340	0.2164	0.0022	1350	22	1295	10	1263	11	97%
17SX04-101	61.9	70.7	0.87	0.0934	0.0016	3.1794	0.0656	0.2463	0.0030	1498	31	1452	16	1419	16	97%
17SX04-102	66.2	160	0.41	0.0903	0.0012	3.0479	0.0500	0.2446	0.0028	1431	26	1420	13	1411	14	99%
17SX04-103	81.0	139	0.58	0.0858	0.0012	2.5898	0.0390	0.2195	0.0030	1333	27	1298	11	1279	16	98%
17SX04-104	62.7	111	0.57	0.0807	0.0013	2.1258	0.0388	0.1910	0.0020	1213	30	1157	13	1127	11	97%
~~17SX04-105~~	~~149~~	~~80.9~~	~~1.85~~	~~0.0939~~	~~0.0042~~	~~2.2692~~	~~0.0869~~	~~0.1771~~	~~0.0032~~	~~1506~~	~~83~~	~~1203~~	~~27~~	~~1051~~	~~18~~	~~86%~~
17SX04-106	123	110	1.11	0.0795	0.0013	2.2336	0.0432	0.2037	0.0020	1184	34	1192	14	1195	11	99%
17SX04-107	52.8	59.0	0.90	0.0979	0.0018	3.6826	0.0792	0.2726	0.0032	1585	34	1568	17	1554	16	99%
17SX04-108	92.2	240	0.38	0.0887	0.0011	2.8633	0.0522	0.2341	0.0032	1398	22	1372	14	1356	17	98%
17SX04-109	83.8	124	0.68	0.0955	0.0013	3.4203	0.0547	0.2601	0.0028	1539	21	1509	13	1490	14	98%
17SX04-110	58.6	44.7	1.31	0.1856	0.0026	12.3965	0.2107	0.4847	0.0052	2706	24	2635	16	2548	22	96%

Note: Data with strikethrough are excluded in statistical calculations.

TABLE DR2. SIMS ZIRCON U-Pb DATA FROM THE EARLY NEOPROTEROZOIC MAFIC SILLS IN THE XUZHOU AND DALIAN REGIONS

Sample/spot #	U (ppm)	Th (ppm)	Pb (ppm)	Th/U	$^{206}Pb/^{204}Pb$ Ratio	$f_{206}(\%)^{*}$	$^{207}Pb/^{235}U$ Ratio	±1σ (%)	$^{206}Pb/^{238}U$ Ratio	±1σ (%)	$^{207}Pb/^{206}Pb$ (Ma)	±1σ (Ma)	$^{207}Pb/^{235}U$ (Ma)	±1σ (Ma)	$^{206}Pb/^{238}U$ age (Ma)	±1σ (Ma)
15XZ02 - 919.2 ± 5.8 Ma (weight mean $^{207}Pb/^{206}Pb$)																
~~15XZ02@20~~	~~548~~	~~1793~~	~~130~~	~~3.273~~	~~706.854~~	~~{3.26}~~	~~1.42521~~	~~5.18~~	~~0.1540~~	~~1.50~~	~~840.9~~	~~100.0~~	~~899.5~~	~~31.4~~	~~923.6~~	~~12.9~~
15XZ02@25	359	968	77	2.697	20607.141	{0.02}	1.39712	1.79	0.1487	1.52	872.6	19.5	887.7	10.6	893.8	12.7
15XZ02@18	400	1248	95	3.118	4029.617	{0.35}	1.45615	1.76	0.1543	1.51	882.5	18.7	912.4	10.7	924.8	13.0
15XZ02@31	616	1750	145	2.842	1177.828	{1.33}	1.47915	2.02	0.1566	1.51	884.2	27.6	921.9	12.3	937.7	13.2
15XZ02@19	643	2024	152	3.148	1664.657	{1.17}	1.46170	2.07	0.1542	1.65	890.9	25.7	914.7	12.6	924.6	14.2
~~15XZ02@7~~	~~620~~	~~2494~~	~~151~~	~~4.024~~	~~170.008~~	~~{0.34}~~	~~1.39939~~	~~7.20~~	~~0.1471~~	~~2.01~~	~~898.7~~	~~136.5~~	~~888.7~~	~~43.6~~	~~884.7~~	~~16.7~~
15XZ02@28	687	2581	176	3.758	5366.019	{0.42}	1.46789	1.93	0.1541	1.64	900.9	21.0	917.3	11.7	924.1	14.1
15XZ02@22	666	1795	143	2.695	22319.038	{0.08}	1.40121	1.90	0.1471	1.78	902.0	13.8	889.4	11.3	884.4	14.7
15XZ02@21	587	2155	148	3.669	8138.266	{2.65}	1.50000	2.01	0.1574	1.71	902.3	21.5	930.4	12.3	942.3	15.0
15XZ02@23	767	2945	187	3.838	8030.016	{0.09}	1.46326	1.70	0.1532	1.50	907.2	16.1	915.4	10.3	918.7	12.9
15XZ02@10	536	2063	143	3.850	24743.314	{0.34}	1.49417	1.59	0.1563	1.50	908.6	10.5	928.0	9.7	936.2	13.1
15XZ02@32	684	2149	166	3.142	6991.976	{0.34}	1.48403	1.64	0.1552	1.50	908.9	13.7	923.9	10.0	930.2	13.0
15XZ02@1	695	2220	176	3.195	4152.612	{0.24}	1.49017	1.62	0.1556	1.50	911.8	12.6	926.4	9.9	932.5	13.0
15XZ02@2	757	2671	197	3.528	4485.491	{0.46}	1.51200	1.86	0.1578	1.50	913.5	22.2	935.2	11.4	944.5	13.2
15XZ02@8	622	1736	142	2.791	5429.036	{1.59}	1.46631	1.93	0.1530	1.50	913.6	24.8	916.6	11.7	917.9	12.9
15XZ02@12	606	1928	151	3.181	72715.984	{0.04}	1.50431	1.59	0.1570	1.51	913.9	10.6	932.1	9.8	939.9	13.2
15XZ02@33	778	2606	201	3.350	7715.701	{0.07}	1.53799	1.58	0.1603	1.51	916.4	9.6	945.7	9.8	958.3	13.4
15XZ02@26	679	3398	189	5.005	15665.075	{0.08}	1.49964	1.70	0.1562	1.50	918.0	16.3	930.2	10.4	935.4	13.1
15XZ02@16	469	1417	111	3.019	45912.484	{0.03}	1.45538	1.62	0.1515	1.53	918.9	11.2	912.1	9.8	909.3	13.0
15XZ02@13	386	893	84	2.312	34364.646	{0.08}	1.44038	1.62	0.1499	1.50	919.6	12.2	905.9	9.7	900.3	12.6
~~15XZ02@17~~	~~557~~	~~1737~~	~~132~~	~~3.117~~	~~879.074~~	~~{0.23}~~	~~1.46134~~	~~4.65~~	~~0.1520~~	~~1.55~~	~~920.9~~	~~87.5~~	~~914.6~~	~~28.4~~	~~911.9~~	~~13.2~~
15XZ02@27	579	2019	136	3.489	1601.823	{0.13}	1.41961	2.05	0.1475	1.50	922.3	28.6	897.2	12.3	887.0	12.4
~~15XZ02@6~~	~~316~~	~~702~~	~~65~~	~~2.219~~	~~574.173~~	~~{1.12}~~	~~1.40657~~	~~7.77~~	~~0.1461~~	~~1.53~~	~~922.5~~	~~149.1~~	~~891.7~~	~~47.2~~	~~879.3~~	~~12.6~~
15XZ02@3	404	962	92	2.383	10365.697	{0.12}	1.47672	1.65	0.1532	1.50	925.6	14.0	920.9	10.0	918.9	12.9

15XZ02@9	651	2239	164	3.437	25610.907	{2.13}	1.50615	1.57	0.1561	1.50	927.7	9.4	932.9	9.6	935.1	13.1
15XZ02@11	514	2266	145	4.407	5456.221	{0.34}	1.54232	1.59	0.1598	1.50	928.2	10.8	947.4	9.8	955.7	13.3
15XZ02@14	683	1887	159	2.765	14799.112	{0.14}	1.47208	1.87	0.1522	1.50	932.0	22.6	919.0	11.3	913.6	12.8
15XZ02@30	613	2502	161	4.083	26251.054	{0.24}	1.49272	1.59	0.1543	1.50	932.7	10.4	927.4	9.7	925.2	13.0
15XZ02@15	354	968	81	2.735	117168.769	{0.05}	1.45482	1.63	0.1503	1.53	934.9	11.6	911.9	9.8	902.4	12.9
15XZ02@4	527	2078	139	3.941	22005.451	{0.34}	1.52028	1.65	0.1569	1.56	936.9	11.2	938.6	10.2	939.3	13.6
15XZ02@24	537	2154	135	4.012	13240.366	{0.23}	1.47493	1.76	0.1520	1.56	939.1	16.3	920.2	10.7	912.2	13.3
15XZ02@5	500	1599	118	3.200	22539.346	{11.00}	1.47185	1.70	0.1510	1.52	949.2	15.2	918.9	10.3	906.3	12.9
~~15XZ02@29~~	~~451~~	~~1418~~	~~104~~	~~3.142~~	~~94026.998~~	~~{0.34}~~	~~1.44644~~	~~1.67~~	~~0.1478~~	~~1.52~~	~~956.3~~	~~14.2~~	~~908.4~~	~~10.1~~	~~888.8~~	~~12.6~~
17LT01 - 943.2 ± 8.0 Ma (weight mean $^{207}Pb/^{206}Pb$)																
17LT01@18	914	1369	215	1.498	6382	{0.29}	1.53102	1.68	0.1585	1.63	930.1	8.6	942.9	10.4	948.4	14.4
17LT01@06	939	1388	228	1.478	7014	{0.27}	1.57554	1.60	0.1606	1.54	961.7	9.0	960.6	10.0	960.1	13.8
~~17LT01@08~~	~~1270~~	~~1924~~	~~290~~	~~1.515~~	~~7943~~	~~{0.24}~~	~~1.47256~~	~~1.54~~	~~0.1519~~	~~1.51~~	~~937.4~~	~~6.8~~	~~919.2~~	~~9.4~~	~~911.6~~	~~12.8~~
17LT01@02	746	1057	172	1.416	8204	{0.23}	1.50626	1.63	0.1557	1.56	933.8	9.3	932.9	10.0	932.6	13.6
17LT01@14	1007	1521	245	1.512	8656	{0.22}	1.57550	1.64	0.1608	1.58	959.5	8.6	960.6	10.2	961.1	14.1
17LT01@09	838	1241	192	1.482	10155	{0.18}	1.48903	1.58	0.1539	1.50	934.0	10.1	925.9	9.6	922.5	12.9
17LT01@16	944	1367	226	1.448	12499	{0.15}	1.55641	1.56	0.1605	1.50	937.9	8.6	953.0	9.7	959.6	13.4
17LT01@1	638	625	134	0.981	13348	{0.14}	1.51028	1.56	0.1546	1.51	953.1	7.6	934.6	9.6	926.7	13.1
17LT01@12	968	1331	231	1.375	14958	{0.13}	1.56317	1.58	0.1608	1.52	943.4	8.3	955.7	9.8	961.1	13.6
17LT01@13	855	1156	198	1.352	15205	{0.12}	1.53501	1.56	0.1582	1.50	939.1	8.5	944.5	9.6	946.8	13.2
~~17LT01@04~~	~~1288~~	~~1730~~	~~296~~	~~1.343~~	~~19383~~	~~{0.10}~~	~~1.51546~~	~~1.55~~	~~0.1566~~	~~1.51~~	~~934.1~~	~~7.8~~	~~936.6~~	~~9.5~~	~~937.7~~	~~13.2~~
17LT01@07	1126	1704	276	1.513	31316	{0.06}	1.56257	1.59	0.1613	1.54	935.4	8.1	955.5	9.9	964.2	13.8
17PF01 - 940.6 ± 5.0 Ma (weight mean $^{207}Pb/^{206}Pb$)																
17PF01@24	620	992	151	1.600	5194	{0.36}	1.53110	1.57	0.1574	1.52	944.7	8.1	942.9	9.7	942.2	13.3
17PF01@23	599	833	137	1.392	16797	{0.11}	1.50375	1.60	0.1547	1.55	942.8	8.5	931.9	9.8	927.3	13.4
17PF01@22	740	795	156	1.074	14180	{0.13}	1.46351	1.55	0.1519	1.50	924.9	7.6	915.5	9.4	911.5	12.8
17PF01@17	952	1227	216	1.289	9631	{0.19}	1.51467	1.60	0.1564	1.55	934.8	8.3	936.3	9.8	937.0	13.5
17PF01@16	924	1327	217	1.435	13802	{0.14}	1.53940	1.61	0.1577	1.55	952.0	8.6	946.3	10.0	943.8	13.7
~~17PF01@14~~	~~1261~~	~~1659~~	~~296~~	~~1.315~~	~~25739~~	~~{0.07}~~	~~1.55047~~	~~1.68~~	~~0.1604~~	~~1.64~~	~~931.2~~	~~7.9~~	~~950.7~~	~~10.4~~	~~959.1~~	~~14.6~~
17PF01@12	888	1173	200	1.321	22387	{0.08}	1.49019	1.64	0.1546	1.58	925.8	9.1	926.4	10.0	926.6	13.7
17PF01@11	718	1244	182	1.732	8523	{0.22}	1.56094	1.67	0.1605	1.60	943.5	9.5	954.8	10.4	959.8	14.3

~~17PF01@09~~	~~1615~~	~~2341~~	~~374~~	~~1.450~~	~~22888~~	~~{0.08}~~	~~1.49048~~	~~1.62~~	~~0.1546~~	~~1.57~~	~~926.6~~	~~7.9~~	~~926.5~~	~~9.9~~	~~926.5~~	~~13.6~~
~~17PF01@08~~	~~1399~~	~~2348~~	~~350~~	~~1.678~~	~~21251~~	~~{0.09}~~	~~1.54930~~	~~1.62~~	~~0.1597~~	~~1.58~~	~~939.1~~	~~7.4~~	~~950.2~~	~~10.0~~	~~955.0~~	~~14.0~~
17PF01@07	696	835	152	1.200	10093	{0.19}	1.51239	1.64	0.1549	1.56	951.4	10.5	935.4	10.1	928.6	13.5
17PF01@05	754	1101	175	1.460	15775	{0.12}	1.51677	1.54	0.1561	1.50	941.8	7.2	937.2	9.5	935.2	13.1
17PF01@04	934	1354	221	1.451	10775	{0.17}	1.53720	1.63	0.1580	1.57	944.9	8.5	945.4	10.1	945.6	13.8
17PF01@03	804	864	173	1.074	18600	{0.10}	1.50731	1.58	0.1548	1.52	946.1	9.0	933.4	9.7	928.0	13.1
17DL01 - 947.8 ± 7.4 Ma (upper intercept)																
17DL01@27	1948	3192	184	1.638	3317	{0.56}	0.48699	1.72	0.0602	1.50	553.8	18.1	402.9	5.7	377.0	5.5
17DL01@09	2109	3869	219	1.834	2670	{0.70}	0.50927	1.63	0.0639	1.51	523.0	13.0	418.0	5.6	399.2	5.9
17DL01@15	1617	3213	208	1.987	1623	{1.15}	0.64811	1.96	0.0766	1.67	653.0	22.1	507.3	7.9	475.6	7.6
17DL01@22	1575	2410	196	1.530	2968	{0.63}	0.70387	1.67	0.0815	1.55	696.0	13.5	541.1	7.0	505.0	7.5
17DL01@1	1710	2793	219	1.633	2951	{0.63}	0.73635	1.64	0.0833	1.51	745.1	13.8	560.3	7.1	515.8	7.5
17DL01@10	1399	2086	196	1.491	5901	{0.32}	0.83466	3.15	0.0932	3.09	772.4	12.4	616.2	14.6	574.5	17.0
17DL01@25	1371	1943	196	1.417	6746	{0.28}	0.86922	2.50	0.0955	2.46	805.8	10.3	635.1	11.9	588.2	13.8
17DL01@23	1456	2080	236	1.428	6132	{0.30}	0.99605	1.64	0.1084	1.56	827.3	10.5	701.8	8.3	663.3	9.8
17DL01@26	1488	2323	276	1.561	9881	{0.19}	1.12148	1.66	0.1202	1.63	859.2	7.0	763.7	9.0	731.4	11.3
17DL01@03	1462	2215	273	1.515	10310	{0.18}	1.15088	1.65	0.1225	1.55	873.3	11.5	777.7	9.0	744.8	10.9
17DL01@06	852	1352	187	1.587	11791	{0.16}	1.36328	1.57	0.1438	1.51	891.5	9.3	873.3	9.3	866.1	12.2
17DL01@17	675	965	148	1.429	8197	{0.23}	1.41367	1.59	0.1484	1.50	901.4	11.0	894.7	9.5	892.0	12.5
17DL01@19	1702	2444	381	1.436	14439	{0.13}	1.42037	1.57	0.1484	1.54	910.6	6.1	897.5	9.4	892.2	12.8
17DL01@13	523	606	109	1.159	8619	{0.22}	1.44083	1.66	0.1486	1.51	938.0	14.1	906.1	10.0	893.0	12.6
17DL01@28	1069	1554	236	1.454	11952	{0.16}	1.41969	1.71	0.1486	1.57	907.4	14.0	897.2	10.2	893.1	13.1
17DL01@05	1004	1329	217	1.324	8781	{0.21}	1.41417	1.57	0.1496	1.52	885.9	8.0	894.9	9.4	898.6	12.8
17DL01@20	868	1198	203	1.380	14924	{0.13}	1.54393	1.60	0.1581	1.52	952.8	10.1	948.1	9.9	946.0	13.4
17DL01@08	677	923	157	1.364	11913	{0.16}	1.53818	1.54	0.1581	1.50	944.2	7.2	945.8	9.5	946.4	13.2
17DL01@18	774	960	177	1.240	14559	{0.13}	1.54692	1.55	0.1592	1.50	942.6	8.1	949.3	9.6	952.2	13.3
17DL01@04	864	1229	208	1.422	16883	{0.11}	1.56435	1.53	0.1606	1.50	947.4	6.4	956.2	9.5	960.0	13.4

Note: Data with strikethrough are excluded in statistical calculations.

*Proportion of common ^{206}Pb in total measured ^{206}Pb.

TABLE DR3. CHARACTERISTIC REMANENT MAGNETIZATION (ChRM) DIRECTIONS FOR THIS STUDY

ID	*Demagnetization steps* (°C or mT)	*N*	D_g (°)	I_g (°)	D_s (°)	I_s (°)	*MAD* (°)
Benxi region (sedimentary rocks)							
Lower part of the Lower Member of the Nanfen (Formation) Fm							
Site 17NF01-1							
17NF01B2	450°C–540°C	5	272.7	-63.2	253.8	-68.8	1.9
17NF01C1	475°C–560°C	5	285.9	-64.5	268.8	-71.9	2.6
17NF01D1	475°C–560°C	5	276.0	-62.7	258.2	-68.8	1.4
17NF01E2	475°C–560°C	5	283.6	-70.2	257.6	-76.9	6.0
17NF01F2	475°C–560°C	5	275.7	-64.8	255.7	-70.7	2.1
17NF01G2	475°C–560°C	5	276.2	-68.4	251.6	-74.1	4.6
17NF01H2	475°C–560°C	5	284.0	-67.7	262.5	-74.7	1.8
17NF01I2	475°C–580°C	5	316.9	-77.0	306.8	-87.0	11.5
Site 17NF01-2							
17NF01K1	475°C–560°C	5	300.6	-72.7	301.9	-84.7	4.4
17NF01L1	450°C–560°C	6	348.8	-62.0	5.6	-70.3	10.8
17NF01M1	475°C–560°C	5	278.4	-74.7	233.5	-80.9	7.3
17NF01P2	450°C–540°C	5	324.0	-63.3	332.8	-73.8	6.8
17NF01Q2	475°C–560°C	5	326.5	-66.3	339.3	-76.5	7.4
17NF01R2	425°C–520°C	5	0.3	-61.5	20.3	-67.1	11.8
17NF01S2	450°C–580°C	6	291.4	-74.3	258.2	-83.7	3.2
17NF01U2	475°C–560°C	5	300.5	-69.4	290.3	-80.1	7.4
Site 17NF02							
17NF02A2	425°C–520°C	5	152.1	76.9	194.0	82.0	3.9
17NF02B2	450°C–540°C	5	131.7	80.7	206.3	87.3	3.7
17NF02C2	425°C–520°C	5	120.6	82.9	315.6	87.1	6.9
17NF02E1	425°C–520°C	5	107.1	83.4	352.2	87.4	7.7
17NF02F2	450°C–540°C	5	134.5	71.6	142.1	79.3	6.1
17NF02G2	475°C–560°C	5	329.0	83.7	315.1	76.0	5.9
17NF02H2	450°C–540°C	5	167.4	74.8	207.8	78.0	2.8
17NF02I2	425°C–520°C	5	136.4	75.2	169.8	83.5	5.3
Site 17NF03							
17NF03D2	540°C–640°C	5	32.4	77.5	354.5	82.2	10.1
17NF03G1	475°C–560°C	5	134.2	-84.1	96.8	-78.2	3.9
17NF03H2	475°C–560°C	5	210.4	-76.4	176.4	-81.0	2.9
17NF03I1	610°C–685°C	6	91.1	69.8	103.5	77.0	1.4
17NF03K1	610°C–675°C	5	74.0	74.6	78.3	82.5	3.0
Site 17NF41							
17NF41A2	630°C–685°C	7	140.6	78.9	182.1	78.7	5.2
17NF41B2	630°C–685°C	7	19.2	79.4	331.3	81.7	5.9
17NF41C2	440°C–565°C	7	20.3	78.8	335.2	81.5	2.9
17NF41D1	630°C–680°C	6	55.7	79.7	18.4	86.8	1.9
17NF41E1	500°C–630°C	5	47.0	61.8	39.0	68.9	5.9
17NF41F2	630°C–680°C	6	51.0	84.5	282.5	86.7	1.3

Site 17NF42							
17NF42A2	500°C–565°C	5	45.2	66.7	34.0	73.6	3.5
17NF42B2	500°C–565°C	5	35.8	79.7	345.3	84.2	0.9
17NF42C1	500°C–565°C	5	79.7	73.2	88.2	81.0	2.6
17NF42D2	480°C–520°C	3	234.7	-72.7	222.6	-80.2	7.3
17NF42E2	520°C–565°C	5	261.3	-72.6	270.3	-80.3	2.5
17NF42F1	500°C–565°C	5	253.0	-76.3	257.2	-84.3	1.6
17NF42G2	500°C–575°C	6	246.6	-79.9	234.2	-87.8	1.4
17NF42H2	500°C–565°C	5	38.7	-86.3	60.2	-78.7	2.8
17NF42K1	520°C–575°C	5	227.7	-70.4	214.2	-77.5	2.0
17NF42L2	500°C–575°C	6	265.8	-85.1	47.6	-86.5	2.0
Site 17NF11-12							
17NF11B2	480°C–555°C	5	232.0	-65.1	223.3	-73.5	9.5
17NF11D2	480°C–555°C	5	205.9	-71.0	180.2	-76.2	7.3
17NF12A1	475°C–555°C	5	252.7	-80.6	229.0	-86.1	1.9
17NF12B2	475°C–540°C	4	259.9	-76.6	253.5	-82.5	1.0
17NF12C1	475°C–540°C	4	238.5	-67.1	229.5	-72.1	4.7
17NF12D2	480°C–555°C	5	254.9	-66.3	250.7	-72.0	5.0
17NF12G1	480°C–565°C	6	285.4	-65.9	297.2	-69.5	3.8
Site 17NF13							
17NF13A1	475°C–540°C	4	206.4	-76.6	180.1	-78.3	3.3
17NF13C2	475°C–555°C	5	268.2	-69.0	268.3	-75.0	2.9
17NF13D2	475°C–555°C	5	266.6	-68.6	266.1	-74.6	3.0
17NF13E1	480°C–555°C	5	253.8	-65.9	249.5	-71.7	1.8
17NF13F1	475°C–555°C	5	234.3	-77.0	212.2	-81.3	2.2
17NF13G1	475°C–555°C	5	235.1	-79.7	203.4	-83.9	1.1
17NF13I1	480°C–555°C	5	263.5	-71.4	261.5	-77.4	3.5
Site 17NF14							
17NF14A2	540°C–575°C	5	269.4	-76.6	270.5	-82.6	3.2
17NF14B2	475°C–555°C	5	252.0	-69.0	248.2	-74.9	0.9
17NF14J1	500°C–565°C	5	260.4	-65.7	258.1	-71.6	6.1
17NF14D2	475°C–540°C	4	245.4	-72.0	235.2	-77.3	6.1
17NF14E1	475°C–565°C	6	215.9	-62.3	205.6	-65.5	3.2
17NF14F1	460°C–565°C	7	238.5	-74.2	223.3	-79.0	2.2
17NF14G1	480°C–565°C	5	235.5	-70.4	223.4	-75.1	8.3
17NF14I2	475°C–555°C	5	258.6	-73.7	253.2	-79.6	1.7
Site 17NF15-16							
17NF15D2	400°C–500°C	5	336.4	-68.6	346.4	-70.0	12.5
17NF15F2	500°C–565°C	5	80.6	85.5	27.8	89.1	10.8
17NF15K1	475°C–555°C	5	97.6	85.0	121.4	88.9	3.0
17NF16E2	475°C–565°C	6	354.5	79.7	334.5	78.5	8.8
17NF16H2	475°C–555°C	5	67.9	73.6	61.1	77.1	4.9
17NF16I1	450°C–565°C	7	278.3	-65.1	279.7	-69.1	8.9
Site 17NF04&17							
17NF04A1	475°C–560°C	5	123.3	79.7	140.4	82.8	2.1
17NF04D1	500°C–580°C	5	170.1	-75.2	156.3	-73.9	2.0
17NF04F1	475°C–560°C	5	155.9	-75.5	143.6	-73.4	2.0

17NF04G1	450°C–540°C	5	132.5	-72.3	125.5	-69.1	5.6
17NF04H1	425°C–540°C	6	7.5	-76.3	22.8	-75.3	7.4
17NF04I2	500°C–580°C	5	24.4	71.9	12.3	73.1	3.2
17NF04J1	500°C–580°C	5	162.0	-73.5	150.4	-71.8	3.0
17NF17A2	475°C–555°C	5	160.8	-68.9	151.8	-67.2	2.6
17NF17H1	480°C–555°C	5	194.2	-71.4	182.2	-71.9	4.0
17NF17D2	440°C–565°C	8	153.4	-77.3	140.0	-75.0	2.8
17NF17F1	475°C–555°C	4	51.8	78.9	34.4	81.6	9.7
Site 17NF18							
17NF18A2	500°C–565°C	5	92.7	77.9	99.7	80.6	6.8
17NF18B1	475°C–555°C	5	23.6	70.2	16.9	72.1	7.1
17NF18C2	400°C–540°C	6	56.3	61.0	54.8	63.9	13.1
17NF18D2	450°C–555°C	6	127.4	80.7	145.4	81.9	2.8
17NF18E1	450°C–540°C	5	270.7	-71.0	274.3	-73.7	11.5
17NF18F2	460°C–540°C	5	266.6	-80.5	273.9	-83.3	6.5
Site 17NF05							
17NF05A1	475°C–560°C	5	42.7	82.1	95.7	88.2	4.7
17NF05C1	500°C–580°C	5	97.3	74.8	124.2	76.1	3.1
17NF05D2	475°C–560°C	5	125.0	84.5	174.3	80.8	2.0
17NF05E2	425°C–560°C	6	78.3	80.8	127.0	83.2	3.3
17NF05F1	450°C–560°C	6	41.0	77.2	52.4	83.9	5.6
17NF05G2	475°C–580°C	6	139.8	78.0	164.4	74.3	2.1
17NF05H1	450°C–540°C	5	119.2	80.3	155.5	78.3	2.3
Site 17NF19							
17NF19A1	480°C–565°C	6	75.3	79.8	133.9	82.7	11.9
17NF19B2	500°C–565°C	5	73.6	71.2	99.4	76.4	8.1
17NF19D2	475°C–540°C	4	195.6	77.9	202.0	69.1	1.8
17NF19E2	500°C–555°C	4	214.2	86.5	211.9	77.5	1.2
17NF19F2	500°C–565°C	5	106.7	79.5	152.8	78.0	6.2
17NF19G2	475°C–540°C	4	117.7	77.2	153.3	74.8	5.5
17NF19H2	475°C–540°C	4	73.5	79.9	133.8	83.0	1.6
Site 17NF20-21							
17NF20D1	500°C–575°C	7	178.4	-73.6	154.8	-73.2	1.1
17NF20E1	460°C–555°C	6	250.0	-79.3	232.3	-86.0	2.1
17NF20G1	475°C–540°C	4	176.9	-76.5	148.7	-75.6	1.1
17NF20H1	500°C–565°C	5	163.6	-74.9	140.5	-72.7	0.9
17NF20I2	480°C–555°C	5	56.4	-79.3	65.5	-72.6	4.7
17NF21A1	475°C–540°C	4	184.5	-61.6	171.4	-62.6	10.8
17NF21B2	460°C–520°C	4	167.4	-70.2	149.0	-68.7	4.4
17NF21C1	480°C–555°C	5	213.2	-67.0	198.2	-71.2	9.4
17NF21D2	475°C–540°C	4	194.9	-77.9	160.6	-78.9	7.0
17NF21E2	500°C–565°C	5	204.5	-72.5	182.0	-75.3	1.5
Site 17NF22							
17NF22A2	475°C–555°C	5	294.0	-69.5	306.9	-73.8	3.5
17NF22B2	475°C–555°C	5	326.9	-85.5	32.1	-83.7	5.0
17NF22C2	450°C–540°C	5	34.5	57.9	27.2	62.3	8.3
17NF22D1	475°C–555°C	5	111.8	82.0	160.1	85.2	7.3

17NF22E1	475°C–555°C	5	61.1	77.6	49.0	83.2	6.1
17NF22F2	500°C–565°C	5	112.2	81.5	156.1	84.8	2.5
17NF22G1	500°C–555°C	5	122.3	82.1	171.1	84.2	4.2
Site 17NF06-1							
17NF06A1	475°C–560°C	5	97.5	76.8	123.8	79.3	6.0
17NF06B1	450°C–540°C	5	69.0	83.0	127.9	87.0	3.0
17NF06C2	450°C–540°C	5	56.5	78.0	68.4	83.7	10.1
17NF06D2	450°C–540°C	5	80.2	78.0	106.1	82.0	3.3
17NF06E2	475°C–560°C	5	91.5	80.5	130.5	83.0	4.7
17NF06L1	450°C–540°C	5	36.2	82.9	0.3	88.6	5.1
Site 17NF06-2							
17NF06F1	450°C–540°C	5	258.7	-71.8	272.8	-76.3	6.2
17NF06G1	425°C–540°C	5	283.4	-70.8	300.5	-73.0	5.9
17NF06H1	475°C–560°C	5	280.2	-73.5	300.4	-75.9	2.4
17NF06I1	425°C–540°C	6	282.5	-71.8	300.6	-74.1	4.7
17NF06J1	450°C–540°C	5	306.8	-77.1	332.4	-76.5	7.0
Site 17NF24							
17NF24A2	480°C–565°C	5	72.1	71.1	83.5	76.1	5.3
17NF24B2	450°C–540°C	5	293.0	-76.8	319.4	-77.6	2.8
17NF24C2	480°C–555°C	5	55.2	84.3	152.9	88.8	6.3
17NF24D2	475°C–565°C	6	180.2	80.2	196.4	75.3	3.3
17NF24E2	480°C–565°C	6	47.8	80.7	54.7	86.7	3.7
17NF24F2	480°C–540°C	4	276.3	-75.2	299.1	-78.0	7.0
Site 17NF23							
17NF23A1	475°C–540°C	4	131.7	-84.2	86.9	-81.5	4.4
17NF23C1	475°C–540°C	4	52.4	83.9	130.3	89.1	3.3
17NF23E2	500°C–555°C	4	116.2	81.6	156.8	81.3	3.9
17NF23F1	475°C–555°C	5	38.1	87.7	227.8	86.3	3.1
Site 17NF29							
17NF29B1	475°C–540°C	4	334.5	-74.2	348.6	-74.1	9.1
17NF29C1	475°C–555°C	5	335.6	-78.4	354.7	-78.0	9.5
17NF29D2	480°C–555°C	5	285.7	-67.8	292.4	-70.9	3.9
17NF29E1	450°C–540°C	4	318.4	-68.4	328.5	-69.6	9.8
17NF29F1	500°C–570°C	6	150.6	-82.8	124.2	-81.2	0.7
17NF29G2	480°C–555°C	5	293.4	-79.4	312.9	-81.8	1.2
17NF29H1	475°C–540°C	4	288.8	-87.8	38.0	-87.3	2.1
17NF29I2	475°C–555°C	5	309.3	-77.0	326.4	-78.5	6.3
17NF29J1	475°C–540°C	4	317.5	-80.0	340.9	-80.8	8.1
17NF29K1	475°C–540°C	4	36.6	72.9	27.7	76.1	9.1
Site 17NF30							
17NF30A2	475°C–555°C	5	96.9	78.2	109.2	81.6	1.8
17NF30B2	475°C–555°C	5	133.7	79.7	156.3	80.8	5.1
17NF30C2	500°C–565°C	5	75.1	78.8	77.9	82.8	5.1
17NF30D2	460°C–540°C	5	93.5	80.2	107.9	83.6	1.5
17NF30E2	480°C–555°C	5	90.1	73.9	96.3	77.6	2.6
17NF30F2	480°C–565°C	6	86.3	81.3	99.3	85.0	5.2
17NF30G2	480°C–555°C	5	60.9	81.5	52.9	85.4	2.0

17NF30H2	480°C–555°C	5	56.3	73.2	52.2	77.0	10.5
17NF30I2	480°C–555°C	5	54.9	83.1	35.9	86.8	6.6
Site 17NF31-32							
17NF31E1	500°C–570°C	6	261.0	-78.1	269.4	-82.9	5.3
17NF31F1	500°C–565°C	5	289.2	-71.6	301.3	-75.1	6.5
17NF32A2	500°C–565°C	5	151.5	70.4	165.6	70.4	6.1
17NF32C1	475°C–555°C	5	29.3	84.1	331.7	86.2	5.0
17NF32D2	500°C–565°C	5	165.4	-88.6	84.9	-85.0	11.9
17NF32E1	500°C–565°C	5	298.9	-77.3	320.5	-79.8	2.7
17NF32F1	500°C–570°C	6	257.5	-75.2	261.6	-80.1	2.6
17NF32G1	475°C–555°C	5	254.2	-79.8	259.1	-84.8	4.9
Site 17NF33							
17NF33B2	500°C–565°C	5	82.7	79.6	97.6	85.3	3.9
17NF33C1	500°C–565°C	5	60.3	80.9	41.2	86.6	5.4
17NF33D1	500°C–565°C	5	117.5	78.0	146.3	81.1	2.2
17NF33E1	475°C–555°C	5	129.4	75.6	153.5	77.7	4.3
17NF33F1	475°C–555°C	5	76.0	82.5	94.5	88.3	7.1
17NF33G1	450°C–520°C	4	315.5	-83.2	7.5	-83.2	7.1
17NF33H2	460°C–540°C	5	303.0	-64.8	314.6	-68.0	13.5
Site 17NF34							
17NF34A2	480°C–555°C	5	24.9	72.0	8.1	75.5	9.5
17NF34B2	500°C–565°C	5	103.2	79.0	131.5	83.3	3.6
17NF34C2	475°C–540°C	4	130.4	65.0	142.9	67.5	5.1
17NF34E1	475°C–555°C	5	64.8	75.9	60.3	81.8	3.3
17NF34F1	475°C–540°C	4	90.4	75.9	103.5	81.4	4.1
17NF34G2	480°C–555°C	5	115.7	74.0	135.1	77.6	3.6
17NF34H2	480°C–555°C	5	150.3	76.3	174.9	76.1	2.7
17NF34J2	450°C–555°C	6	189.3	65.1	199.3	61.8	6.1
Site 17NF35-1							
17NF35B2	500°C–565°C	5	84.1	80.6	105.1	86.2	1.3
17NF35C2	500°C–555°C	4	78.2	79.2	87.0	85.1	5.1
17NF35D2	480°C–555°C	5	74.2	83.7	126.0	89.6	1.7
17NF35E2	500°C–565°C	5	95.5	83.9	170.8	87.4	6.4
17NF35F2	480°C–555°C	5	113.8	75.4	135.2	79.0	1.4
17NF35G2	500°C–555°C	5	138.3	84.5	198.3	83.6	1.6
17NF35H2	500°C–565°C	5	67.7	82.9	50.9	88.8	1.4
17NF35I2	480°C–555°C	5	160.4	83.5	203.2	81.2	2.5
Site 17NF35-2							
17NF35J2	460°C–540°C	5	109.3	83.5	174.0	85.9	1.9
17NF35K2	520°C–575°C	5	313.3	68.4	301.6	65.0	3.4
17NF35L1	480°C–555°C	5	152.3	83.2	197.3	81.6	1.6
17NF35M1	480°C–555°C	5	165.4	84.6	210.9	81.6	2.3
17NF35N2	440°C–520°C	5	66.8	88.1	252.9	85.9	3.0
17NF35P2	480°C–555°C	5	107.7	81.3	150.1	84.7	1.2
17NF35Q2	480°C–555°C	5	232.7	-76.2	225.0	-80.9	1.9
17NF35R2	500°C–565°C	5	143.1	64.3	155.7	65.5	10.3
17NF35S1	460°C–540°C	5	96.5	80.5	128.4	85.1	2.1

Site 17NF07							
17NF07A2	450°C–540°C	5	86.3	83.1	123.4	87.3	6.6
17NF07B2	425°C–560°C	7	108.6	82.9	153.4	85.3	2.9
17NF07C2	450°C–540°C	5	97.1	83.1	141.8	86.4	6.2
17NF07D1	475°C–560°C	5	119.3	80.9	152.5	82.8	6.5
17NF07E1	450°C–540°C	5	129.3	80.3	160.1	81.4	1.8
17NF07F1	450°C–540°C	5	81.1	79.7	93.6	84.4	6.0
17NF07G1	450°C–540°C	5	117.3	75.4	135.6	78.0	1.7
17NF07I2	425°C–540°C	5	82.4	78.3	93.3	83.0	6.3
Site 17NF36							
17NF36A2	460°C–555°C	5	83.3	78.3	94.6	83.0	1.7
17NF36C2	480°C–555°C	5	51.8	79.3	39.3	84.0	3.5
17NF36D1	460°C–555°C	6	63.0	84.9	344.5	89.6	2.2
17NF36E2	480°C–555°C	4	86.4	73.9	94.5	78.5	6.3
17NF36F2	480°C–555°C	5	67.1	70.8	67.1	75.8	12.8
17NF36H2	480°C–540°C	4	59.2	64.9	57.4	69.9	8.4
Site 17NF37							
17NF37A1	480°C–540°C	4	100.7	83.8	154.5	86.6	4.0
17NF37B2	460°C–540°C	5	67.3	78.4	67.5	83.4	3.8
17NF37D2	480°C–555°C	5	335.3	85.3	289.6	83.0	3.5
17NF37E2	480°C–555°C	5	19.7	82.5	337.9	84.5	5.6
17NF37F1	500°C–565°C	5	351.1	67.1	339.1	67.8	3.3
Site 17NF38							
17NF38A2	460°C–540°C	5	98.5	80.0	122.7	83.7	3.7
17NF38B1	480°C–555°C	5	64.3	82.4	59.1	87.4	5.0
17NF38C2	460°C–540°C	5	52.8	78.7	42.2	83.4	3.4
17NF38D2	460°C–540°C	5	91.7	82.0	122.6	86.0	3.6
17NF38E2	440°C–520°C	5	36.8	76.3	22.1	80.3	6.5
Site 17NF27							
17NF27A2	480°C–575°C	7	144.6	78.0	173.4	78.3	3.2
17NF27B2	475°C–540°C	4	135.6	73.5	156.3	75.2	1.6
17NF27C1	500°C–565°C	5	112.1	74.8	131.7	78.7	5.9
17NF27D2	475°C–540°C	4	109.5	83.1	169.0	85.8	2.3
17NF27E2	475°C–555°C	5	102.2	73.4	116.6	78.2	1.4
17NF27F1	500°C–565°C	5	119.7	72.7	137.8	76.0	3.3
17NF27G2	500°C–565°C	5	159.7	72.0	177.7	71.3	3.4
17NF27H2	500°C–575°C	6	150.3	79.2	181.5	78.8	3.3
Site 17NF28							
17NF28C2	460°C–540°C	5	114.2	80.9	154.7	83.8	5.4
17NF28D2	460°C–520°C	4	132.6	72.9	152.3	75.0	4.6
17NF28E2	480°C–555°C	5	143.3	69.0	159.3	70.2	2.5
17NF28G2	460°C–540°C	5	149.8	80.3	184.2	79.7	1.0
17NF28H1	480°C–555°C	5	151.1	65.9	164.7	66.4	2.0
17NF28I2	500°C–565°C	5	134.0	73.4	154.5	75.2	3.1
17NF28J2	460°C–540°C	5	194.9	89.4	247.8	83.7	1.9
Upper part of the Lower Member of the Nanfen Fm							
Site 17NF25-1							

17NF25A2	580°C–665°C	6	135.2	73.1	158.7	73.5	1.3
17NF25B2	580°C–665°C	6	116.1	64.2	130.0	67.4	2.2
17NF25C1	600°C–675°C	6	128.9	71.8	150.9	73.1	2.1
17NF25D2	630°C–675°C	5	154.6	73.4	176.1	71.5	2.6
17NF25E2	630°C–680°C	6	156.3	65.3	170.7	63.7	1.7
17NF25F2	630°C–685°C	7	148.8	74.5	172.8	73.2	2.0
17NF25G1	400°C–580°C	5	115.2	74.5	141.2	77.1	2.7
17NF25H1	645°C–685°C	6	169.6	70.0	185.3	66.7	0.8
Site 17NF25-2							
17NF25I1	630°C–685°C	7	138.1	71.2	158.9	71.4	1.0
17NF25J1	630°C–685°C	7	136.0	65.4	151.6	66.2	2.0
17NF25K2	580°C–665°C	5	139.6	69.2	158.2	69.3	1.0
17NF25L1	580°C–665°C	5	212.0	60.7	216.8	54.4	0.8
17NF25M2	600°C–665°C	5	154.5	63.5	167.9	62.2	4.2
17NF25N1	600°C–675°C	6	188.5	82.8	213.7	77.2	1.1
17NF25P2	600°C–665°C	5	148.0	81.6	188.3	79.3	1.2
17NF25Q1	600°C–675°C	6	173.4	78.9	197.8	74.7	0.6
The Middle Member of the Nanfen Fm							
Site 17NF26							
17NF26A2	600°C–675°C	6	157.3	62.2	168.0	60.6	3.3
17NF26B1	500°C–600°C	4	139.8	66.6	153.7	66.6	4.7
17NF26C2	580°C–655°C	5	135.0	63.7	147.3	64.3	8.5
17NF26D2	630°C–685°C	7	155.7	67.3	169.1	65.7	2.1
17NF26E1	450°C–580°C	4	149.0	74.2	169.1	73.0	1.2
17NF26F1	630°C–680°C	6	156.4	62.5	167.2	60.9	5.0
17NF26G1	645°C–685°C	6	171.8	68.8	184.1	65.7	1.6
Site 17NF09							
17NF09A1	580°C–665°C	5	136.8	63.3	160.2	72.4	2.9
17NF09B1	560°C–675°C	6	141.6	55.5	160.2	62.4	4.5
17NF09C1	640°C–675°C	4	157.7	54.3	176.1	59.9	0.7
17NF09E2	580°C–665°C	5	159.7	52.3	176.8	57.6	3.0
17NF09F1	610°C–685°C	6	142.6	60.8	164.5	69.0	2.1
17NF09H2	580°C–675°C	5	141.4	54.5	157.4	63.4	6.6
17NF09I1	580°C–675°C	6	147.3	52.3	163.0	60.2	3.1
17NF09J1	610°C–685°C	6	155.8	53.5	173.3	59.6	2.9
17NF09K2	610°C–675°C	5	152.2	54.8	170.4	61.5	2.5
Site 17NF39							
17NF39B1	630°C–685°C	7	143.0	55.7	147.6	59.8	0.9
17NF39C1	630°C–685°C	7	146.3	51.1	150.4	55.0	2.7
17NF39D1	630°C–680°C	6	142.0	52.5	146.0	56.6	2.0
17NF39E1	600°C–665°C	5	157.5	53.6	163.0	56.8	0.7
17NF39F2	450°C–580°C	4	125.1	68.3	129.3	73.1	2.7
17NF39H2	600°C–675°C	6	148.3	53.1	152.9	56.9	0.7
17NF39I1	600°C–675°C	6	127.3	41.9	128.8	46.7	2.6
17NF39J2	400°C–580°C	5	131.1	70.7	137.9	75.3	1.6
Site 17NF40							
17NF40A2	600°C–675°C	6	143.5	48.9	147.0	53.0	2.9

17NF40B1	600°C–665°C	5	148.6	38.2	151.3	42.1	8.2
17NF40C2	400°C–580°C	5	143.6	60.5	149.4	64.6	2.9
17NF40D2	630°C–675°C	5	159.0	49.6	163.9	52.7	1.1
17NF40E2	630°C–680°C	6	157.5	52.3	162.8	55.5	1.5
17NF40F3	600°C–680°C	7	146.7	53.6	151.3	57.5	5.2
17NF40G1	600°C–685°C	7	135.2	42.9	137.5	47.4	3.1
17NF40I2	600°C–680°C	7	151.3	54.3	156.5	57.9	2.9
17NF40J1	600°C–685°C	8	135.9	54.2	139.4	58.6	3.8
Site 17NF10							
17NF10A2	580°C–675°C	5	181.3	53.6	192.3	54.1	4.2
17NF10B1	610°C–685°C	6	184.0	56.6	196.2	56.6	1.9
17NF10D2	610°C–685°C	6	148.2	43.2	154.6	48.2	4.7
17NF10E2	610°C–685°C	6	155.2	55.0	165.9	59.0	2.6
17NF10F1	640°C–685°C	5	157.9	62.8	173.2	66.1	4.1
Dalian region (sedimentary rocks)							
Lower part of the Nanfen Fm							
Section A							
Site 16FZ01							
16FZ01A2	440°C–490°C	6	102.7	84.8	81.4	85.8	1.2
16FZ01B2	410°C–430°C	3	46.2	81.1	34.7	80.4	2.7
16FZ01C2	440°C–540°C	6	113.8	85.7	89.0	87.0	9.9
16FZ01D2	440°C–490°C	6	95.5	84.4	75.0	85.2	2.2
16FZ01E2	460°C–580°C	7	132.9	81.4	127.4	83.2	3.5
16FZ01F1	450°C–580°C	8	101.3	83.1	85.9	84.2	1.9
16FZ01G1	450°C–540°C	6	137.7	80.5	134.0	82.4	1.4
16FZ01H2	450°C–540°C	5	114.2	83.3	100.7	84.8	1.6
16FZ01I2	450°C–560°C	7	138.8	66.8	137.7	68.8	5.7
16FZ01J2	450°C–610°C	7	123.2	75.3	119.0	77.1	4.6
Site 16FZ12							
16FZ12.1A1	450°C–540°C	6	114.2	82.5	102.4	84.0	2.5
16FZ12.1B2	450°C–490°C	5	132.5	80.3	127.7	82.2	2.3
16FZ12A1	490°C–545°C	4	94.6	78.9	85.1	79.9	5.2
16FZ12C2	490°C–545°C	4	100.2	69.5	95.7	70.6	5.6
16FZ12D2	490°C–560°C	5	118.6	79.5	111.6	81.1	2.3
16FZ12E1	475°C–545°C	5	94.5	75.7	87.4	76.7	1.9
16FZ12F1	460°C–545°C	6	155.6	79.6	156.5	81.6	6.8
16FZ12G1	475°C–560°C	6	103.5	71.9	98.5	73.2	5.2
Site 16FZ02							
16FZ02C2	450°C–540°C	6	77.6	78.9	67.4	79.3	1.8
16FZ02D1	450°C–540°C	6	124.0	80.8	116.9	82.5	2.2
16FZ02E1	450°C–540°C	6	89.5	79.8	78.8	80.5	3.9
16FZ02.1I1	475°C–545°C	5	77.4	76.9	68.8	77.3	2.0
16FZ02.1J1	460°C–545°C	6	97.2	79.5	87.3	80.5	3.4
16FZ02.1A1	475°C–545°C	5	102.0	80.4	91.7	81.6	5.2
16FZ02.1B1	520°C–570°C	5	94.8	83.4	77.9	84.2	4.2
16FZ02.1H1	475°C–600°C	7	128.8	61.7	127.2	63.5	14.9
Site 16FZ13							

16FZ13C2	475°C–545°C	5	86.8	68.0	82.2	68.8	2.4
16FZ13E2	475°C–545°C	5	75.7	74.9	68.3	75.3	2.1
16FZ13F2	490°C–560°C	5	97.6	53.7	95.3	54.8	2.2
16FZ13G2	490°C–560°C	5	90.3	79.3	80.2	80.1	5.3
16FZ13H1	490°C–560°C	5	94.7	75.6	87.6	76.6	2.9
16FZ13I2	490°C–560°C	5	80.4	60.1	77.0	60.6	4.3
16FZ13.1F2	450°C–560°C	7	102.3	79.4	93.2	80.5	1.8
Site 16FZ03							
16FZ03A2	450°C–540°C	6	299.1	-82.5	288.6	-84.1	3.0
16FZ03B2	450°C–540°C	6	288.8	-84.1	271.7	-85.4	3.6
16FZ03.1G2	450°C–540°C	6	234.3	-71.7	228.5	-71.4	6.4
16FZ03.1H1	450°C–540°C	6	258.8	-40.7	257.1	-41.2	5.8
16FZ03.2A1	490°C–560°C	5	269.6	-72.1	263.9	-72.9	2.8
16FZ03.2B1	475°C–560°C	5	347.2	-80.9	351.4	-82.8	4.8
16FZ03.2C1	490°C–570°C	6	292.9	-75.3	287.5	-76.8	4.6
16FZ03.2D1	475°C–560°C	6	303.2	-81.3	295.4	-83.0	4.5
Site 16FZ14							
16FZ14A3	490°C–560°C	5	279.5	-83.0	264.2	-84.0	4.6
16FZ14F1	460°C–545°C	6	314.7	-82.2	309.0	-84.1	2.2
16FZ14G1	450°C–545°C	5	204.0	-76.9	197.8	-75.6	4.7
16FZ14H2	520°C–570°C	5	279.8	-82.2	266.4	-83.2	4.0
16FZ14.1C1	450°C–540°C	6	267.4	-77.5	258.7	-78.3	4.2
16FZ14.1D2	450°C–540°C	6	181.0	-85.3	172.5	-83.5	2.3
16FZ14.1E1	450°C–490°C	5	347.2	-83.7	354.0	-85.6	15.3
Site 16FZ04							
16FZ04.1I1	475°C–545°C	5	108.3	79.9	99.3	81.2	3.2
16FZ04.1J1	520°C–570°C	5	95.5	78.2	86.7	79.2	1.5
16FZ04.1K2	475°C–545°C	5	111.9	83.2	98.2	84.6	1.5
16FZ04.1B2	570°C–660°C	5	350.1	78.4	347.5	76.5	7.1
Site 16FZ15							
16FZ15C2	600°C–670°C	5	147.2	41.4	147.1	43.4	3.9
16FZ15D2	600°C–660°C	4	152.4	50.4	152.4	52.4	1.7
16FZ15E2	625°C–680°C	5	122.1	69.5	119.1	71.2	3.5
16FZ15F2	600°C–680°C	6	145.9	57.5	145.5	59.5	2.2
16FZ15.1C1	460°C–680°C	11	136.8	58.1	135.9	60.0	4.8
16FZ15.1A3	450°C–680°C	12	142.8	61.1	142.1	63.1	5.0
16FZ15.1B1	450°C–680°C	12	143.2	53.4	142.8	55.4	4.5
Site 16FZ16							
16FZ16.1F1	510°C–680°C	10	56.6	84.6	36.9	84.1	2.1
16FZ16.1G1	650°C–680°C	4	120.3	72.3	116.7	74.0	3.5
16FZ16.1H1	600°C–670°C	5	85.5	82.7	69.8	83.2	3.0
16FZ16.1J2	600°C–670°C	5	110.5	82.6	98.0	84.0	1.8
Section B							
Site 16FZ17							
16FZ17B1	490°C–560°C	5	250.3	-58.7	238.6	-63.5	3.9
16FZ17C1	490°C–560°C	5	248.3	-75.6	215.5	-78.9	2.4
16FZ17D1	490°C–560°C	5	227.4	-62.3	211.9	-63.9	2.2

16FZ17E1	520°C–570°C	5	254.7	-70.2	234.0	-75.0	3.0
16FZ17F2	475°C–545°C	5	239.2	-72.7	212.3	-75.2	2.5
16FZ17G1	490°C–560°C	5	235.1	-69.7	212.8	-72.0	1.4
16FZ17H1	475°C–560°C	6	242.1	-70.6	218.9	-73.7	2.1
16FZ17I1	490°C–560°C	5	225.7	-75.8	193.3	-76.0	2.0
Site 16FZ18							
16FZ18A1	475°C–545°C	5	252.6	-80.9	194.5	-83.3	1.6
16FZ18C1	490°C–560°C	5	275.7	-78.8	237.2	-85.2	2.9
16FZ18D1	475°C–545°C	5	240.6	-79.5	193.8	-80.8	1.2
16FZ18H1	475°C–545°C	5	251.6	-77.4	212.9	-80.9	1.6
16FZ18.1G2	475°C–545°C	5	293.5	-72.7	289.7	-80.7	2.0
16FZ18.1H2	475°C–545°C	5	329.3	-68.9	345.0	-75.2	4.4
Xuzhou region (sedimentary rocks)							
Lower part of the Xinxing Fm							
Section C							
Site XX01							
14XX01A1	450°C–540°C	6	114.7	88.2	114.1	74.2	2.9
14XX01B2	450°C–540°C	6	260.4	85.0	129.9	79.8	3.9
14XX01C1	475°C–540°C	6	323.8	87.1	106.7	78.5	6.6
14XX01D1	450°C–540°C	6	299.4	86.0	111.8	80.0	6.8
14XX01E1	400°C–530°C	6	275.2	81.1	141.1	83.7	1.3
14XX01F2	375°C–550°C	10	285.9	82.1	124.3	83.8	3.4
14XX01G1	375°C–540°C	9	259.8	85.0	129.8	79.7	2.5
14XX01H1	375°C–540°C	8	242.6	85.3	132.7	78.4	4.4
Site XX02							
14XX02A1	400°C–540°C	7	351.7	86.3	99.5	77.6	9.1
14XX02B1	450°C–540°C	6	270.7	85.2	125.1	80.2	2.0
14XX02C1	450°C–550°C	6	343.4	84.6	92.6	78.8	2.7
14XX02E1	475°C–550°C	6	323.9	84.0	95.3	80.7	2.3
14XX02F2	500°C–680°C	18	322.8	79.7	68.9	83.0	3.6
14XX02G1	425°C–555°C	9	326.6	79.6	67.2	82.4	2.5
14XX02H2	350°C–550°C	11	277.5	84.0	125.8	81.6	3.1
14XX02I1	375°C–540°C	9	272.5	81.2	142.8	83.3	3.2
14XX02J1	375°C–680°C	25	6.1	83.5	86.3	76.5	3.5
Site XX03							
17XX03.1P1	400°C–525°C	6	22.3	84.9	84.7	76.5	2.3
17XX03.1R1	480°C–550°C	5	11.4	79.5	62.7	74.9	3.7
16XX03.1I1	500°C–565°C	4	317.9	78.2	34.1	83.7	2.0
16XX03.1J1	480°C–525°C	4	0.5	77.1	50.2	75.1	7.2
14XX03A1	475°C–680°C	19	277.6	79.5	151.1	85.1	3.1
14XX03C2	500°C–670°C	17	7.3	72.4	50.9	71.1	2.9
14XX03D1	500°C–680°C	18	309.2	84.8	105.5	80.9	2.4
14XX03E2	500°C–680°C	18	330.1	77.7	52.6	81.8	2.8
14XX03G2	500°C–565°C	8	330.1	79.2	63.7	81.8	3.4
14XX03F2	500°C–670°C	17	347.6	79.9	68.3	78.6	3.2
Site XX04-1							
17XX04.1Z1	420°C–525°C	5	293.8	68.2	301.7	80.1	4.8

17XX04.1A1	475°C–550°C	5	323.9	76.7	26.6	82.0	1.3
17XX04.1B1	475°C–550°C	5	308.2	75.9	3.8	84.8	2.1
17XX04.4C1	475°C–560°C	5	296.9	54.8	301.4	66.6	1.0
17XX04.1D2	475°C–550°C	5	307.0	69.7	330.9	80.1	1.6
17XX04.1F1	520°C–570°C	5	312.2	69.6	339.6	79.2	2.0
Site XX05-1							
16XX05A2	480°C–550°C	4	36.0	81.6	78.2	73.3	2.8
16XX05B1	550°C–585°C	5	44.1	77.3	73.9	69.0	1.6
17XX05.1A1	565°C–640°C	5	318.8	84.1	83.1	82.4	1.1
17XX05.1B1	565°C–660°C	6	320.6	85.1	87.8	81.7	2.6
17XX05.1C1	450°C–550°C	5	307.0	87.5	101.9	80.3	0.8
17XX05.1D2	420°C–525°C	5	271.3	87.4	111.3	80.5	1.4
17XX05.1E1	450°C–550°C	5	306.2	80.9	65.6	85.5	1.4
Site XX05-2							
17XX05.2I2	575°C–685°C	7	6.5	81.6	68.4	76.7	1.5
17XX05.2J2	575°C–685°C	7	3.5	83.5	75.7	77.8	3.5
17XX05.2K1	575°C–675°C	6	356.8	77.6	49.8	76.1	2.2
17XX05.2L2	575°C–685°C	7	323.1	83.3	75.9	82.3	2.4
16XX05E1	500°C–585°C	6	285.8	85.6	107.7	82.4	1.5
16XX05F1	500°C–585°C	6	342.5	73.6	27.4	76.3	2.7
16XX05G2	500°C–585°C	6	275.5	81.8	129.1	85.7	1.2
16XX05H1	500°C–585°C	6	304.1	66.8	320.1	77.7	1.3
16XX05I2	500°C–585°C	6	300.0	75.0	338.5	85.7	1.2
Site XX06							
16XX06A2	450°C–550°C	5	259.4	87.9	112.6	79.8	2.5
16XX06B2	450°C–525°C	4	279.4	86.6	110.0	81.4	1.5
16XX06C1	500°C–575°C	5	325.5	87.3	97.3	80.0	2.1
16XX06D1	550°C–590°C	5	62.5	76.6	83.0	66.5	1.1
16XX06E1	500°C–590°C	7	253.9	71.1	218.2	79.1	2.2
16XX06F2	500°C–590°C	7	225.7	82.3	146.1	79.3	1.5
16XX06G1	420°C–525°C	5	209.3	86.6	123.7	78.3	2.3
16XX06H1	450°C–525°C	4	321.2	80.6	55.1	83.3	3.1
16XX06I2	500°C–590°C	7	271.9	68.6	254.9	79.7	2.0
16XX06J1	480°C–550°C	4	254.7	85.5	123.6	81.5	1.3
16XX06K1	500°C–585°C	6	186.7	84.6	129.6	76.0	2.2
Site XX14-1							
17XX14A1	375°C–550°C	8	148.0	-69.9	182.6	-76.6	10.9
17XX14B1	400°C–525°C	6	141.9	-73.5	187.1	-80.5	2.0
17XX14C1	400°C–550°C	7	168.7	-72.8	210.3	-74.5	2.6
17XX14D1	400°C–550°C	7	131.4	-66.9	152.6	-76.9	3.8
17XX14G1	400°C–550°C	7	138.2	-74.6	187.9	-82.0	2.4
17XX14H1	420°C–550°C	6	145.6	-72.0	185.6	-78.6	1.8
Site XX14-2							
17XX14I1	400°C–550°C	7	121.3	-75.7	168.9	-86.0	1.3
17XX14J1	400°C–565°C	8	143.1	-73.8	189.9	-80.5	2.5
17XX14L2	420°C–565°C	7	144.9	-71.2	182.4	-78.2	2.6
16XX14D1	450°C–550°C	5	135.8	-75.2	188.4	-82.8	1.1

17XX14N1	400°C–525°C	6	130.2	-77.4	201.8	-85.1	1.5
17XX14P1	400°C–565°C	8	129.2	-77.5	201.8	-85.3	2.1
Site XX14-3							
17XX14Q1	400°C–525°C	6	174.6	-77.7	229.2	-76.6	1.8
17XX14R1	400°C–525°C	6	148.3	-69.6	182.1	-76.2	3.0
17XX14S1	420°C–525°C	5	163.8	-79.1	229.9	-79.1	2.8
17XX14T1	400°C–525°C	6	166.7	-71.2	204.8	-73.7	4.0
17XX14W1	400°C–525°C	6	138.4	-64.6	159.7	-73.7	3.5
17XX14Y1	480°C–525°C	3	158.3	-72.3	199.8	-76.2	11.1
Site XX15-1							
17XX15.1M2	450°C–520°C	4	158.0	-81.0	238.7	-80.6	1.9
17XX15.1N2	450°C–540°C	5	189.9	-72.5	225.4	-70.1	1.6
17XX15.1P1	425°C–520°C	5	121.3	-84.9	276.9	-82.8	2.6
17XX15A1	420°C–550°C	6	110.4	-85.2	284.8	-82.7	3.5
17XX15B2	420°C–550°C	6	126.6	-83.2	264.6	-84.0	1.7
17XX15C1	450°C–550°C	5	124.5	-84.9	274.7	-82.7	4.5
17XX15D1	450°C–550°C	5	160.9	-78.0	223.2	-79.2	2.5
17XX15E1	480°C–550°C	4	129.4	-74.3	173.8	-83.6	7.4
17XX15G1	420°C–550°C	6	151.1	-83.0	252.2	-81.5	3.6
Site XX15-2							
17XX15H1	480°C–550°C	4	102.3	-75.8	79.1	-87.5	7.0
17XX15I1	500°C–565°C	4	279.8	-81.8	284.0	-69.9	11.0
17XX15J1	500°C–565°C	4	113.6	-66.9	120.4	-78.7	9.1
17XX15K1	500°C–565°C	4	195.0	-81.8	251.8	-75.8	3.9
17XX15L1	450°C–550°C	5	157.7	-81.4	241.0	-80.7	3.7
17XX15M1	480°C–550°C	4	169.8	-87.0	272.8	-79.0	5.0
16XX15.2G1	500°C–565°C	4	195.0	-80.2	246.5	-74.8	5.3
17XX15N1	480°C–565°C	5	65.7	-81.7	330.7	-82.1	3.1
17XX15P1	450°C–575°C	7	120.1	-85.1	278.3	-82.7	4.1
17XX15Q1	450°C–575°C	7	136.3	-85.1	269.7	-81.9	6.6
Site XX16							
17XX16A1	500°C–565°C	4	96.3	-84.0	297.2	-83.8	8.3
17XX16B2	525°C–585°C	5	230.8	-74.2	254.0	-65.5	7.7
17XX16C2	480°C–565°C	5	209.2	-81.7	256.2	-74.1	7.6
17XX16D2	480°C–575°C	6	204.0	-78.6	246.3	-72.5	3.5
17XX16F1	500°C–550°C	3	288.3	-87.3	287.2	-75.3	9.2
17XX16G2	450°C–550°C	5	184.9	-87.9	276.8	-78.3	5.5
17XX16H2	480°C–565°C	5	224.6	-83.8	266.5	-74.2	7.9
17XX16J1	420°C–525°C	5	168.1	-80.0	235.9	-78.7	1.6
17XX16K1	420°C–525°C	5	177.6	-82.2	248.6	-78.1	1.1
17XX16M1	480°C–550°C	4	248.4	-66.6	260.4	-56.4	10.6
Site XX17-1							
17XX17F1	550°C–640°C	6	338.6	-82.9	306.0	-72.7	7.4
17XX17G2	565°C–640°C	5	76.0	-82.7	320.6	-83.2	3.1
17XX17H1	550°C–585°C	4	64.4	-85.2	307.8	-80.9	2.5
17XX17I1	565°C–660°C	6	100.5	-86.1	290.1	-81.9	1.7
17XX17J1	565°C–640°C	5	324.3	-78.7	305.4	-68.0	1.3

17XX17K1	565°C–675°C	7	357.4	-78.3	322.2	-70.7	2.5
17XX17L2	575°C–685°C	7	67.1	-82.9	322.0	-82.0	3.2
Site XX17-2							
17XX17M1	575°C–675°C	6	78.2	-87.7	293.5	-80.0	5.8
17XX17N1	585°C–675°C	5	349.1	-84.2	306.3	-74.5	3.0
17XX17P1	565°C–675°C	7	106.5	-86.7	287.2	-81.3	1.7
17XX17Q1	565°C–675°C	7	121.9	-81.0	252.5	-86.0	1.5
17XX17R1	575°C–675°C	6	121.6	-83.3	269.9	-84.3	2.4
17XX17S1	565°C–685°C	8	50.5	-78.0	349.1	-78.7	2.4
16XX17.2D1	550°C–590°C	5	110.0	-78.7	247.2	-89.1	2.2
Site XX18							
17XX18A1	565°C–675°C	7	324.3	-78.7	305.5	-67.9	3.7
17XX18B1	565°C–675°C	7	356.8	-80.5	317.8	-72.3	5.0
17XX18C1	565°C–675°C	7	73.6	-84.8	307.3	-81.8	2.6
17XX18D1	565°C–675°C	7	113.0	-82.2	276.3	-85.7	2.2
17XX18E1	565°C–675°C	7	152.9	-82.7	249.6	-81.3	2.2
17XX18F1	565°C–675°C	7	114.2	-85.7	283.1	-82.2	2.3
17XX18H1	575°C–660°C	5	90.7	-83.5	304.8	-84.0	6.9
Site XX19							
17XX19A1	500°C–560°C	5	289.7	74.1	297.6	86.0	2.2
17XX19B1	475°C–550°C	5	320.1	77.6	30.1	83.1	1.3
17XX19C2	475°C–550°C	5	334.5	79.2	47.3	80.8	1.8
17XX19D2	475°C–550°C	5	308.4	74.3	352.2	83.8	2.2
17XX19E1	450°C–540°C	5	325.1	86.8	95.4	80.3	1.9
16XX19.1A2	500°C–575°C	5	320.3	76.8	24.2	82.8	2.8
16XX19.1B2	500°C–575°C	5	340.5	73.7	26.1	76.8	2.4
16XX19.1C2	450°C–550°C	6	266.3	81.4	144.3	85.0	8.2
Site XX20							
17XX20G2	500°C–560°C	5	309.8	71.7	341.7	81.4	1.2
17XX20H1	520°C–570°C	5	307.7	71.2	336.4	81.4	3.8
17XX20I1	520°C–570°C	5	291.3	69.5	297.0	81.4	2.7
17XX20J1	500°C–560°C	5	300.8	78.2	27.2	87.1	2.2
17XX20K1	475°C–540°C	4	324.8	77.3	31.0	82.1	2.0
17XX20L2	425°C–500°C	4	11.9	76.1	54.0	72.5	1.5
16XX20.1E2	500°C–575°C	5	316.0	72.4	354.4	80.8	2.7
16XX20.1F1	500°C–575°C	5	273.0	75.5	228.4	85.9	1.9
Section D							
Site 16XX09							
16XX09A2	450°C–550°C	5	210.1	85.3	123.6	82.1	3.2
16XX09B1	525°C–585°C	5	44.1	86.3	78.5	78.2	4.3
16XX09C1	500°C–585°C	6	77.8	83.8	86.1	74.9	2.6
16XX09D1	500°C–585°C	6	136.3	68.2	124.5	61.1	4.8
16XX09E1	500°C–575°C	5	92.3	76.8	92.2	67.8	2.8
16XX09F1	500°C–565°C	4	218.2	80.6	157.8	81.7	3.9
16XX09G1	450°C–550°C	5	356.5	83.7	55.0	79.5	2.5
16XX09H2	500°C–565°C	4	180.9	86.3	114.4	80.2	2.2
16XX09I2	480°C–565°C	5	106.2	81.2	99.1	72.3	3.7

16XX09J1	500°C–575°C	5	161.3	69.9	142.3	65.3	7.2
16XX09K1	500°C–585°C	6	137.0	78.3	117.9	70.9	2.4
Site 16XX10-1							
16XX10A1	500°C–575°C	5	149.4	82.1	118.9	75.2	3.0
16XX10B2	500°C–575°C	5	159.2	83.3	120.2	76.9	5.1
16XX10C1	450°C–550°C	6	171.9	85.6	116.2	79.3	7.1
16XX10D2	420°C–525°C	4	352.4	89.2	86.8	81.1	1.5
16XX10E1	450°C–525°C	5	62.8	87.9	86.6	79.1	3.1
Huainan region (sedimentary rocks)							
Lower part of the Liulaobei Fm							
Site 17SX02							
17SX02A1	490°C–550°C	5	155.1	71.0	119.9	70.7	6.4
17SX02B1	490°C–550°C	5	208.0	80.2	100.0	85.5	2.0
17SX02C1	490°C–550°C	5	354.7	74.4	17.3	65.4	3.4
17SX02D2	475°C–540°C	5	326.3	76.9	4.7	71.2	3.8
17SX02E1	475°C–540°C	5	30.4	72.0	37.5	60.4	3.3
17SX02F1	450°C–540°C	5	34.5	86.1	45.4	74.2	3.5
17SX02H1	475°C–550°C	5	313.8	83.2	18.0	76.8	3.6
17SX02I2	490°C–550°C	5	26.3	75.9	36.4	64.4	4.3
17SX02J2	475°C–550°C	5	186.5	85.8	66.8	80.7	2.5
17SX02L2	475°C–540°C	5	204.9	63.9	187.9	74.1	13.8
Site 17SX03-1							
17SX03B2	490°C–550°C	5	294.1	-79.6	259.4	-71.1	6.0
17SX03C1	475°C–540°C	5	11.7	-77.5	304.2	-82.2	7.6
17SX03D2	490°C–560°C	6	290.5	-77.4	261.2	-68.9	3.9
17SX03E1	475°C–550°C	5	271.9	-86.1	239.2	-74.9	5.3
17SX03F1	475°C–540°C	5	173.4	-83.5	209.9	-73.4	7.3
17SX03G2	400°C–520°C	6	41.8	-88.6	230.0	-79.4	6.7
17SX03H2	490°C–550°C	5	203.0	-75.0	214.2	-63.7	9.0
Site 17SX03-2							
17SX03I1	475°C–550°C	6	149.8	-75.2	183.6	-69.3	4.5
17SX03J2	490°C–550°C	5	218.2	-77.4	223.3	-65.5	3.7
17SX03K1	450°C–520°C	5	323.6	-81.7	265.5	-76.0	8.4
17SX03L1	450°C–540°C	5	208.2	-75.4	217.3	-63.8	3.4
17SX03M1	450°C–550°C	6	202.1	-80.6	217.0	-69.2	4.3
17SX03N1	490°C–550°C	6	74.6	-71.5	107.9	-80.8	8.7
17SX03P1	475°C–540°C	5	117.2	-80.6	182.9	-77.9	2.9
17SX03Q1	475°C–540°C	5	128.5	-74.5	169.2	-72.3	5.3
17SX03R1	475°C–540°C	5	152.6	-79.3	192.8	-72.2	6.5
Site 17SX12-1							
17SX12A2	490°C–555°C	5	150.7	-78.1	189.3	-71.5	8.8
17SX12B1	490°C–560°C	6	143.9	-84.2	204.1	-76.3	4.9
17SX12C2	490°C–560°C	5	178.4	-86.7	218.7	-75.7	7.5
17SX12D1	490°C–550°C	5	218.6	-86.9	226.8	-74.9	2.8
17SX12E1	490°C–555°C	5	208.2	-84.5	222.4	-72.7	6.3
17SX12F2	490°C–560°C	6	133.4	-83.2	198.0	-76.8	7.8
Site 17SX12-2							

17SX12G1	475°C–540°C	5	123.7	-82.9	194.8	-77.8	9.0
17SX12I2	490°C–565°C	6	215.5	-87.0	226.3	-75.0	5.0
17SX12J2	490°C–565°C	7	340.8	-59.7	319.5	-62.0	7.9
17SX12L2	450°C–540°C	6	223.1	-82.9	226.8	-70.9	6.1
17SX12N1	490°C–550°C	5	68.6	-69.1	90.6	-79.6	3.2
17SX12P2	490°C–555°C	5	319.8	-72.5	286.2	-69.0	8.6
17SX12Q2	500°C–565°C	6	352.5	-85.2	252.5	-79.9	5.8
17SX12S1	490°C–555°C	5	64.5	-75.7	113.6	-85.8	3.3
Xuzhou region (mafic sills and dolostone of the Niyuan Fm for the baked-contact test)							
Sill #15XZ							
15XZ01C1	550°C–563°C	5	143.6	61.2	141.1	49.3	4.2
15XZ01D1	537°C–553°C	6	134.6	66.1	134.4	54.1	5.5
15XZ01E1	550°C–563°C	5	154.0	60.0	149.0	48.5	4.1
15XZ01G1	547°C–560°C	5	148.3	68.1	143.6	56.4	6.9
15XZ01H1	543°C–560°C	6	149.1	59.2	145.4	47.5	3.5
15XZ02B1	547°C–563°C	6	146.7	60.0	143.5	48.2	5.7
15XZ02D1	540°C–560°C	7	148.8	68.4	143.9	56.6	4.1
15XZ02F2	540°C–557°C	5	154.1	65.4	148.1	53.9	4.8
15XZ02H2	525°C–553°C	9	141.8	64.2	139.6	52.3	7.2
15XZ02.1A1	537°C–550°C	5	151.4	63.7	146.5	52.1	1.0
15XZ03B1	543°C–563°C	5	132.6	59.8	133.0	47.9	5.4
15XZ03F1	537°C–550°C	7	147.7	45.5	145.5	33.8	4.7
15XZ03H1	537°C–550°C	5	147.7	62.8	143.9	51.1	5.0
15XZ03J1	543°C–560°C	5	149.1	56.9	145.6	45.2	2.0
15XZ03.1B1	550°C–563°C	5	177.5	64.3	165.1	54.7	1.9
15XZ04F1	543°C–557°C	5	161.0	69.2	151.8	58.1	2.9
15XZ04I2	550°C–563°C	5	166.8	65.0	157.2	54.3	4.5
15XZ04.1A1	537°C–553°C	6	132.6	58.6	132.9	46.6	2.1
15XZ04.1B1	547°C–563°C	5	170.5	59.7	161.5	49.5	6.5
15XZ04.1C1	553°C–567°C	5	170.3	53.0	163.1	42.9	2.6
15XZ05.1A1	553°C–567°C	5	179.0	60.0	167.9	50.7	2.9
15XZ05.1B2	537°C–550°C	5	156.7	56.4	151.6	45.1	5.5
15XZ05.1C1	535°C–563°C	9	152.8	64.5	147.3	53.0	4.7
15XZ05.1D1	547°C–560°C	5	143.6	53.3	141.6	41.4	4.0
15XZ05.1E2	530°C–550°C	6	147.2	64.0	143.4	52.2	2.0
15XZ05.1F2	520°C–547°C	6	146.7	64.7	143.0	52.9	6.1
Baked dolostone of the Niyuan Fm							
Site 17XZ11-17							
17XZ11A1	200°C–330°C	4	150.1	62.9	145.5	49.2	4.1
17XZ11B2	270°C–350°C	6	169.4	54.0	161.5	41.8	10.8
17XZ11G1	400°C–450°C	4	183.8	62.0	169.5	51.4	11.9
17XZ17J1	300°C–330°C	4	127.5	57.3	129.4	43.4	5.2
17XZ17K1	310°C–340°C	4	144.5	48.5	142.7	34.7	10.4
17XZ17L1	320°C–360°C	5	142.6	56.4	140.7	42.5	7.7
17XZ17M1	320°C–350°C	4	132.8	50.3	133.3	36.3	8.2
17XZ17N1	320°C–350°C	4	186.2	66.5	168.8	56.1	8.2
Site 17XZ12-15							

17XZ12I1	200°C–370°C	7	131.7	78.9	133.5	64.9	11.6
17XZ12J2	300°C–390°C	8	138.2	61.5	137.3	47.5	12.6
17XZ12L1	270°C–375°C	5	146.7	41.1	144.9	27.4	9.1
17XZ12K1	270°C–330°C	3	132.3	54.0	132.9	40.1	3.3
17XZ15D2	260°C–320°C	4	164.0	66.9	153.9	54.1	8.5
17XZ15F1	260°C–330°C	5	141.1	45.8	140.0	31.8	8.9
17XZ15G2	260°C–330°C	5	129.8	28.4	130.3	14.5	15.1
Unbaked dolostone of the Niyuan Fm							
Site 17XZ24-25							
17XZ24A1	425°C–520°C	6	168.1	-20.8	168.8	-23.1	10.3
17XZ24B1	425°C–520°C	6	185.4	-40.5	187.6	-42.1	12.8
17XZ24C2	440°C–540°C	5	191.1	-49.7	194.3	-51.1	4.7
17XZ25C1	425°C–520°C	6	191.7	-25.6	190.3	-25.0	8.1
17XZ25E1	400°C–500°C	6	192.6	-32.4	190.7	-31.8	13.5
17XZ25F1	425°C–520°C	6	191.3	-17.4	190.4	-16.8	15.4
17XZ25G1	425°C–500°C	5	165.1	-21.6	164.2	-19.7	4.2
Site 17XZ26							
17XZ26A1	425°C–580°C	8	201.4	-34.1	202.4	-35.4	9.6
17XZ26B2	440°C–540°C	5	193.4	-37.6	194.5	-39.1	8.5
17XZ26D1	385°C–520°C	6	189.5	-49.2	190.9	-50.8	5.5
17XZ26E1	460°C–560°C	6	177.1	-44.3	177.9	-46.1	4.6
17XZ26F2	425°C–480°C	4	187.7	-18.0	188.1	-19.7	15.3
17XZ26G1	425°C–500°C	4	196.1	-7.3	196.3	-8.8	7.9
17XZ26I1	375°C–520°C	6	165.3	-29.1	165.5	-31.1	13.7
Site 17XZ27							
17XZ27C1	400°C–520°C	7	184.5	-43.4	182.4	-41.4	10.0
17XZ27D2	400°C–520°C	7	190.2	-45.8	187.8	-44.0	5.3
17XZ27L1	330°C–565°C	12	185.9	-49.4	183.4	-47.4	7.9
17XZ27F2	440°C–520°C	5	184.1	-38.4	182.4	-36.4	8.5
17XZ27H2	360°C–470°C	5	177.6	-33.0	176.4	-30.7	9.2
17XZ27K2	425°C–520°C	6	182.0	-38.0	180.3	-35.9	15.6
Site 17XZ27							
17XZ28A2	425°C–540°C	7	184.3	-47.1	185.8	-48.5	5.3
17XZ28D2	480°C–560°C	5	172.1	-29.9	172.7	-31.5	10.3
17XZ28F2	440°C–560°C	7	183.4	-40.2	184.6	-41.7	9.4
17XZ28G2	425°C–540°C	6	189.3	-36.0	190.5	-37.3	8.3
17XZ28H2	400°C–540°C	8	173.3	-25.5	173.8	-27.2	13.7
Sill #17LT							
17LT02E2	500°C–570°C	6	326.4	-7.9	321.6	-44.9	1.5
17LT02F1	500°C–580°C	7	323.7	-5.0	318.9	-41.5	2.6
17LT02H1	520°C–580°C	6	327.8	-7.6	323.7	-44.8	2.2
17LT02I2	520°C–580°C	5	322.3	-10.6	315.2	-46.7	8.9
17LT02L2	500°C–560°C	5	328.0	-11.0	323.2	-48.2	4.7
17LT02M1	450°C–505°C	5	337.6	-13.3	337.4	-51.3	2.4
17LT03A2	480°C–530°C	7	315.7	-1.4	310.0	-36.0	2.8
17LT03B2	520°C–580°C	6	319.0	1.4	314.8	-34.3	3.8
17LT03C1	500°C–580°C	6	323.9	-6.1	318.8	-42.6	3.8

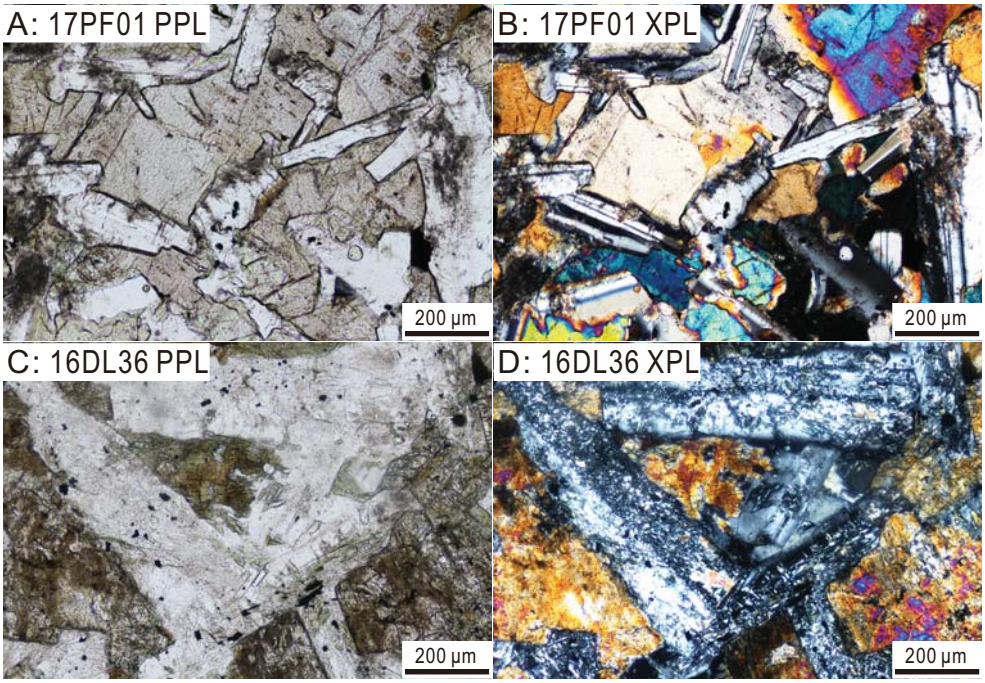
17LT03D2	520°C–580°C	6	320.5	-2.2	315.5	-38.1	2.2
17LT03E2	500°C–580°C	7	317.0	6.6	314.1	-28.7	4.3
17LT03F1	500°C–570°C	6	324.8	-10.2	318.8	-46.8	10.9
17LT03G1	350°C–465°C	5	318.8	10.5	317.0	-25.4	7.1
17LT03H1	475°C–550°C	5	323.9	3.3	321.0	-33.4	1.7
17LT03I1	475°C–560°C	6	332.7	-4.5	330.8	-42.3	3.7
17LT03J1	540°C–580°C	5	324.5	2.2	321.6	-34.6	7.1
17LT03K1	350°C–465°C	5	329.2	-1.7	326.6	-39.2	11.5
17LT03L1	350°C–465°C	5	331.3	0.9	329.6	-36.8	5.1
17LT03M1	475°C–542°C	5	333.3	-2.9	331.7	-40.7	2.7
17LT03N1	450°C–515°C	6	333.0	27.1	333.5	-10.8	7.3
17LT03P1	465°C–515°C	5	328.5	12.3	327.7	-25.2	10.2
17LT03Q1	480°C–520°C	5	316.7	13.7	315.7	-21.8	7.0
17LT03R1	525°C–560°C	8	337.5	-7.1	337.3	-45.1	6.6
Sill #17PF							
17PF01A1	545°C–561°C	3	337.2	-14.1	338.4	-38.0	5.4
17PF01B2	555°C–565°C	3	334.7	-10.1	335.2	-34.1	5.4
17PF01C1	560°C–568°C	3	334.0	-10.3	334.4	-34.3	6.4
17PF01D1	560°C–568°C	3	340.0	2.6	340.6	-21.1	6.8
17PF01E1	560°C–572°C	3	339.8	-14.7	341.7	-38.4	9.4
17PF01F2	545°C–560°C	3	323.4	-21.4	320.6	-45.0	5.2
17PF01G1	555°C–568°C	4	325.4	-9.2	324.2	-33.0	7.2
17PF01H1	565°C–575°C	4	322.9	-4.3	321.7	-27.9	8.3
17PF01I2	545°C–560°C	3	330.5	3.2	331.1	-20.5	10.0
17PF01K1	555°C–570°C	3	322.5	-14.8	320.2	-38.4	6.7
17PF02D1	568°C–578°C	4	337.0	-1.2	337.5	-25.1	7.4
17PF02F1	560°C–574°C	4	332.0	-15.2	332.0	-39.2	7.1
17PF02G2	560°C–577°C	4	332.8	-6.7	332.9	-30.7	5.4
17PF02H2	565°C–580°C	5	329.9	-0.7	329.7	-24.7	4.1
17PF02I1	570°C–580°C	4	322.9	-13.4	320.9	-37.0	7.7
17PF02J2	570°C–580°C	3	327.1	-13.7	326.0	-37.6	5.0
17PF02K1	570°C–577°C	3	337.4	-8.2	338.3	-32.1	5.0
17PF02Q1	530°C–565°C	4	325.6	-16.8	324.0	-40.6	11.9
17PF04A1	572°C–585°C	4	335.9	-10.5	336.7	-34.4	11.0
17PF04C1	572°C–580°C	4	347.9	-7.0	350.3	-29.9	14.9
17PF04E1	545°C–565°C	4	340.5	-3.9	341.6	-27.6	6.5
17PF04I1	555°C–565°C	3	339.7	-9.1	341.0	-32.9	3.4
17PF05A2	555°C–565°C	3	322.7	2.6	322.0	-21.1	4.2
17PF05B2	555°C–565°C	3	335.1	-2.9	335.4	-26.8	5.7
17PF05D1	565°C–574°C	3	337.4	10.7	337.5	-13.2	9.5
17PF05F1	555°C–568°C	3	324.0	4.2	323.5	-19.5	5.6
17PF05G1	560°C–572°C	4	327.5	-24.7	325.9	-48.6	12.0
17PF05H2	570°C–580°C	4	339.4	-6.1	340.5	-29.9	7.7
17PF05I1	555°C–568°C	4	331.1	-8.1	330.9	-32.1	8.3
17PF05J1	565°C–580°C	5	331.8	-1.3	331.8	-25.3	2.4
17PF05K1	570°C–577°C	3	328.0	-9.1	327.3	-33.0	14.3

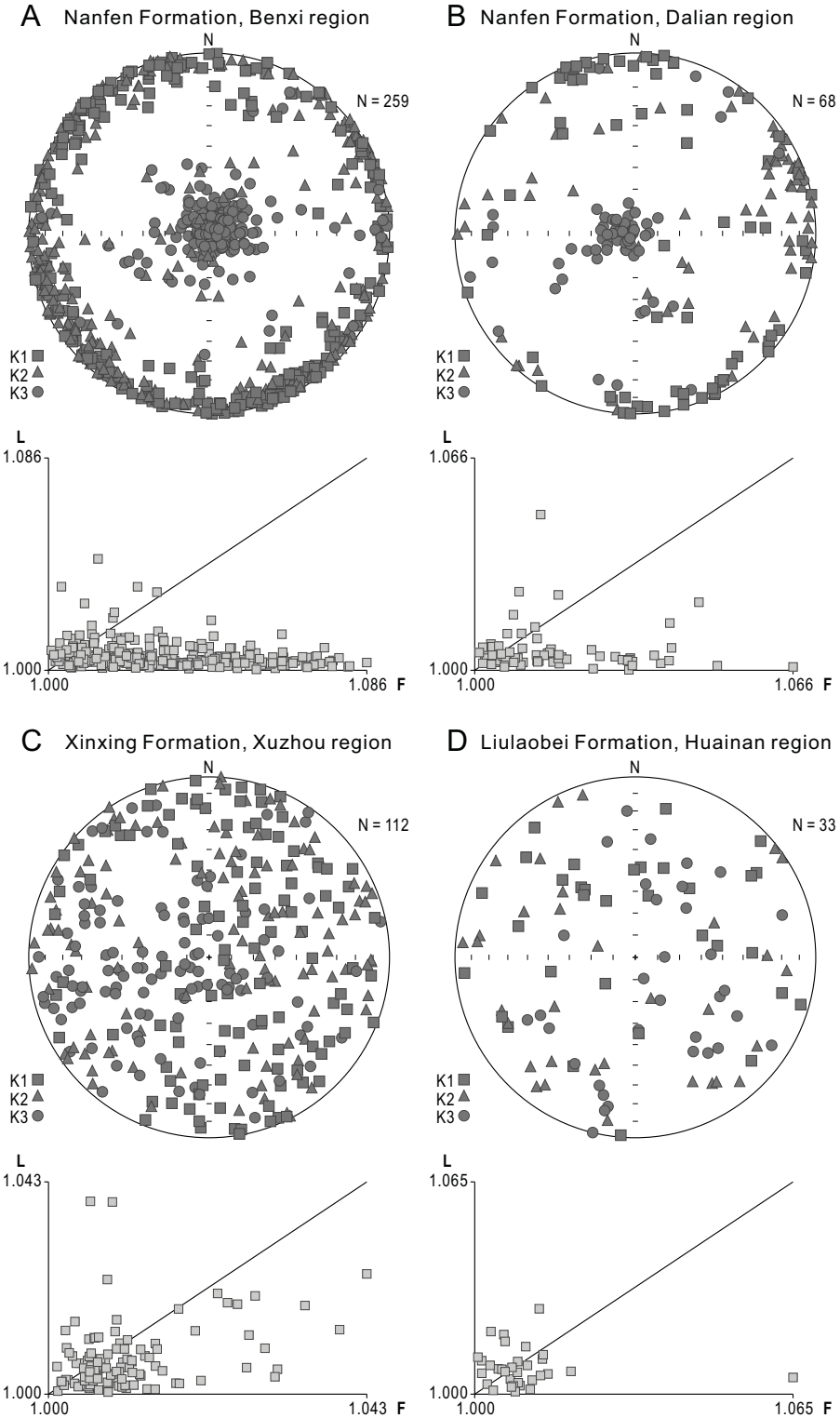
Dalian region (mafic sills)

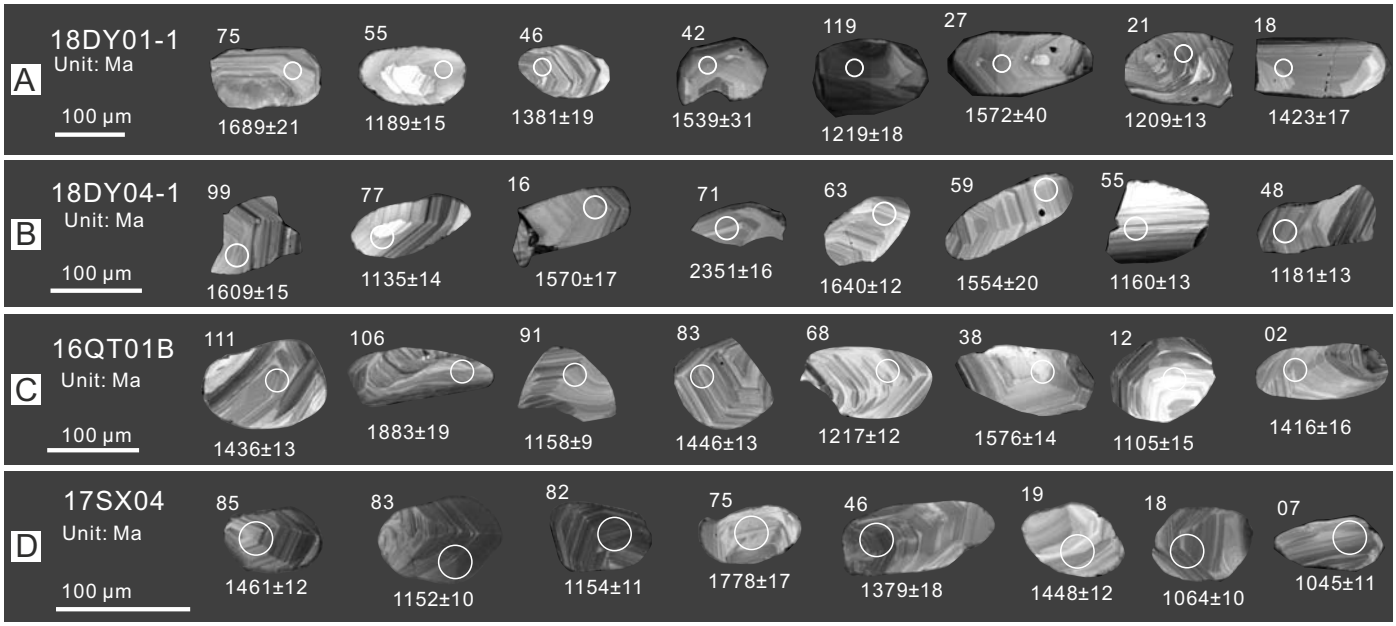
Sill #15DL							
15DL01A1	467°C–570°C	11	353.6	-34.2	5.0	-33.2	3.9
15DL01B1	490°C–570°C	9	0.3	-39.8	13.6	-36.6	5.4
15DL01F1	480°C–570°C	10	342.5	-31.0	353.2	-33.4	8.3
15DL01G1	480°C–550°C	8	352.6	-24.9	0.6	-24.7	4.7
15DL02A1	480°C–560°C	10	354.1	-23.7	1.5	-23.2	14.4
15DL02C1	467°C–550°C	8	351.9	-20.9	358.5	-21.2	10.3
15DL02D1	450°C–560°C	12	7.1	-27.2	14.8	-22.7	8.3
15DL02E1	450°C–550°C	10	343.2	-19.9	349.8	-22.7	9.8
15DL02F1	467°C–550°C	9	358.1	-34.9	9.5	-32.6	8.7
15DL02G1	480°C–540°C	7	355.3	-23.6	2.6	-22.7	6.1
15DL03A2	467°C–550°C	9	354.7	-36.1	6.9	-34.7	4.6
15DL03B1	480°C–560°C	8	344.9	-35.4	357.4	-36.9	5.4
15DL03C1	480°C–560°C	9	351.9	-33.1	3.0	-32.7	3.0
15DL03E1	480°C–550°C	8	351.6	-44.9	8.3	-43.7	4.8
15DL03F1	467°C–560°C	10	352.3	-39.3	6.1	-38.3	5.6
15DL03G2	467°C–540°C	9	356.3	-30.4	6.0	-28.9	5.3
15DL03H2	450°C–550°C	10	353.0	-31.6	3.4	-30.9	4.7
15DL03I1	467°C–550°C	9	346.7	-34.3	358.6	-35.3	7.9
15DL03J1	467°C–560°C	10	314.2	-34.1	325.5	-44.2	5.4
15DL03K1	467°C–560°C	10	341.1	-30.9	351.8	-33.8	9.0
15DL03L1	467°C–560°C	10	346.0	-47.6	4.9	-47.8	2.9
15DL04A2	480°C–570°C	10	348.9	-27.0	357.8	-27.8	8.1
15DL04B1	467°C–560°C	11	352.8	-31.4	3.2	-30.8	3.9
15DL04C1	467°C–570°C	10	354.2	-32.0	4.7	-30.9	2.5
15DL04D1	510°C–560°C	6	355.4	-38.1	8.4	-36.4	2.3
15DL04E1	467°C–570°C	11	350.2	-38.0	3.5	-37.8	4.3
15DL04F1	467°C–570°C	11	349.4	-37.9	2.7	-37.9	3.9
15DL05C2	450°C–560°C	11	354.3	-36.5	6.7	-35.1	4.3
15DL05E1	480°C–560°C	9	347.9	-43.3	4.1	-43.3	4.5
15DL05F2	467°C–550°C	9	332.4	-51.7	355.2	-55.3	3.6
15DL05G2	467°C–560°C	10	352.9	-35.3	4.8	-34.5	4.8
15DL05H1	467°C–560°C	10	346.6	-36.3	359.4	-37.2	7.3
Sill #16DL							
16DL35D1	530°C–550°C	5	325.3	-21.8	343.1	-32.9	13.1
16DL35F1	475°C–555°C	7	324.4	-42.0	0.8	-48.2	4.7
16DL35G1	475°C–560°C	8	332.7	-12.0	343.1	-20.8	3.4
16DL35H1	515°C–565°C	8	330.5	-26.0	350.7	-33.2	8.0
16DL36D1	540°C–565°C	6	322.8	-6.9	331.3	-22.1	6.9
16DL37F2	40mT–80mT	4	321.0	-6.1	329.2	-22.4	2.5
16DL37G2	50mT–120mT	5	324.5	-45.4	4.9	-50.3	9.6
16DL37I1	450°C–540°C	6	316.5	-36.5	348.3	-49.0	8.5
16DL37J2	450°C–530°C	5	317.9	-23.4	337.7	-38.3	3.0
16DL38A1	425°C–530°C	6	338.0	-29.5	359.4	-31.6	3.9
16DL38C1	20mT–50mT	4	333.9	-21.8	350.5	-28.0	1.5
16DL39A1	425°C–515°C	5	319.5	-39.0	353.7	-49.0	1.6
16DL39B1	425°C–530°C	6	327.9	-30.9	352.6	-38.4	4.5

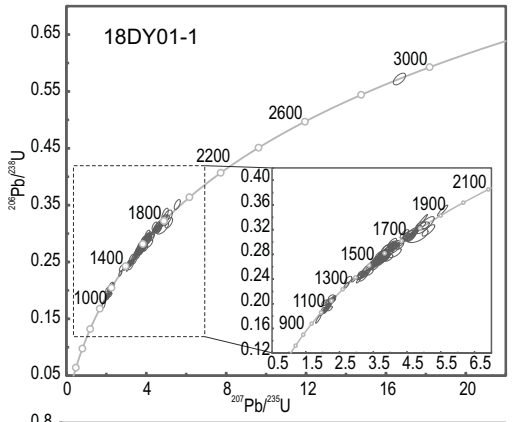
16DL39D1	60mT–120mT	4	324.8	-29.8	349.0	-39.4	13.3
16DL39E1	425°C–515°C	5	319.9	1.0	324.3	-17.0	6.4
16DL39G2	450°C–515°C	5	327.3	-11.9	338.4	-23.8	4.1
16DL41A2	350°C–450°C	4	323.1	-11.7	334.4	-26.0	3.7
16DL41B1	300°C–495°C	8	315.4	-10.2	326.4	-28.8	8.3
16DL41C1	425°C–495°C	5	319.4	-19.5	336.2	-34.3	7.6
16DL41E1	425°C–530°C	7	318.4	-10.0	329.1	-27.1	8.8
16DL41G2	20mT–100mT	7	327.5	-20.4	344.1	-30.6	13.6
16DL41H1	450°C–530°C	5	323.1	-10.0	333.4	-24.5	7.2
16DL412	30mT–80mT	5	310.1	-29.3	335.1	-47.3	8.2

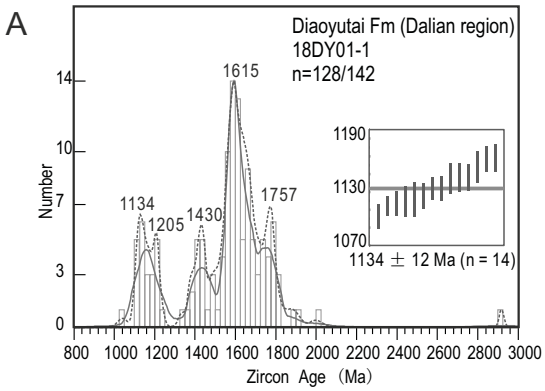
Note: *ID*–specimen identification; *Demagnetization Steps*–demagnetization step range over which the (characteristic remanent magnetization) ChRM direction is determined; *N*–number of demagnetization steps used to define the ChRM direction; D_g/I_g–declination and inclination in geographc coordinates; D_s/I_s–declination and inclination in stratigraphic coordinates; *MAD*–mean angular deviation of the ChRM direction.

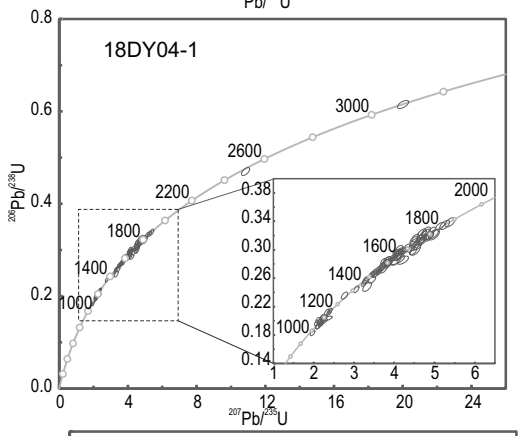

A: 17PF01 PPL
200 µm
B: 17PF01 XPL
200 µm
C: 16DL36 PPL
200 µm
D: 16DL36 XPL
200 µm

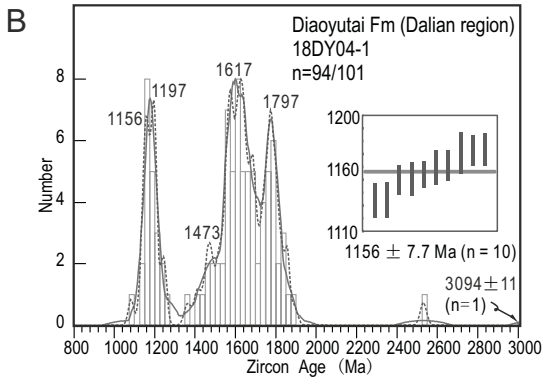

A Nanfen Formation, Benxi region
N
N = 259
K1
K2
K3
L
1.086
1.000
1.000
1.086
F
B Nanfen Formation, Dalian region
N
N = 68
K1
K2
K3
L
1.066
1.000
1.000
1.066
F
C Xinxing Formation, Xuzhou region
N
N = 112
K1
K2
K3
L
1.043
1.000
1.000
1.043
F
D Liulaobei Formation, Huainan region
N
N = 33
K1
K2
K3
L
1.065
1.000
1.000
1.065
F

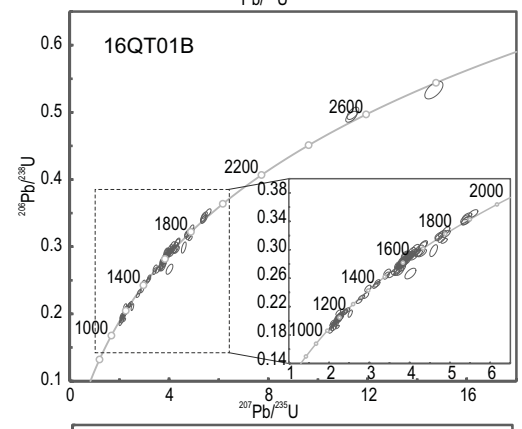

A
18DY01-1
Unit: Ma
100 μm
75
1689±21
55
1189±15
46
1381±19
42
1539±31
119
1219±18
27
1572±40
21
1209±13
18
1423±17
B
18DY04-1
Unit: Ma
100 μm
99
1609±15
77
1135±14
16
1570±17
71
2351±16
63
1640±12
59
1554±20
55
1160±13
48
1181±13
C
16QT01B
Unit: Ma
100 μm
111
1436±13
106
1883±19
91
1158±9
83
1446±13
68
1217±12
38
1576±14
12
1105±15
02
1416±16
D
17SX04
Unit: Ma
100 μm
85
1461±12
83
1152±10
82
1154±11
75
1778±17
46
1379±18
19
1448±12
18
1064±10
07
1045±11

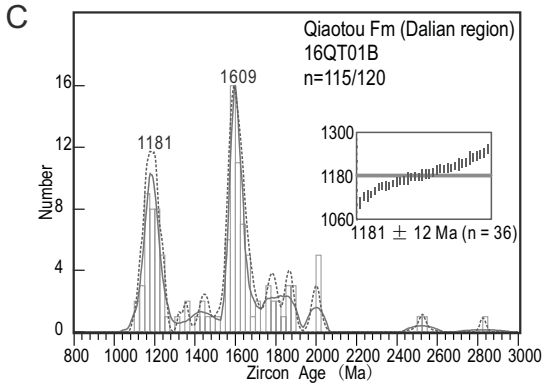

18DY01-1
$^{206}Pb/^{238}U$
$^{207}Pb/^{235}U$

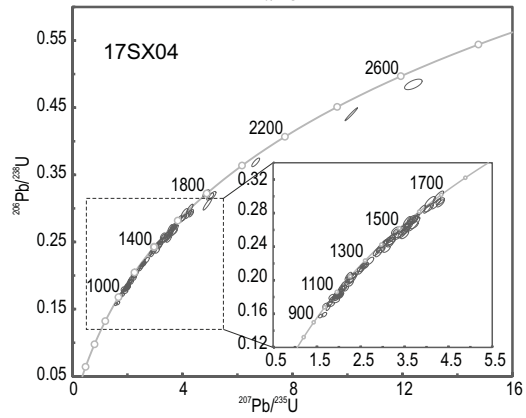

A
Diaoyutai Fm (Dalian region)
18DY01-1
n=128/142
1615
1134
1205
1430
1757
1134 ± 12 Ma (n = 14)
Number
Zircon Age (Ma)

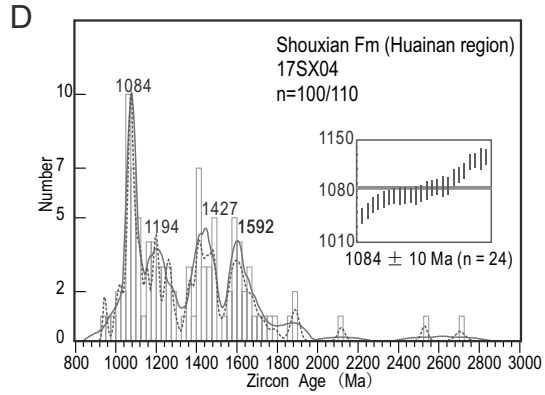

18DY04-1
$^{206}Pb/^{238}U$
$^{207}Pb/^{235}U$

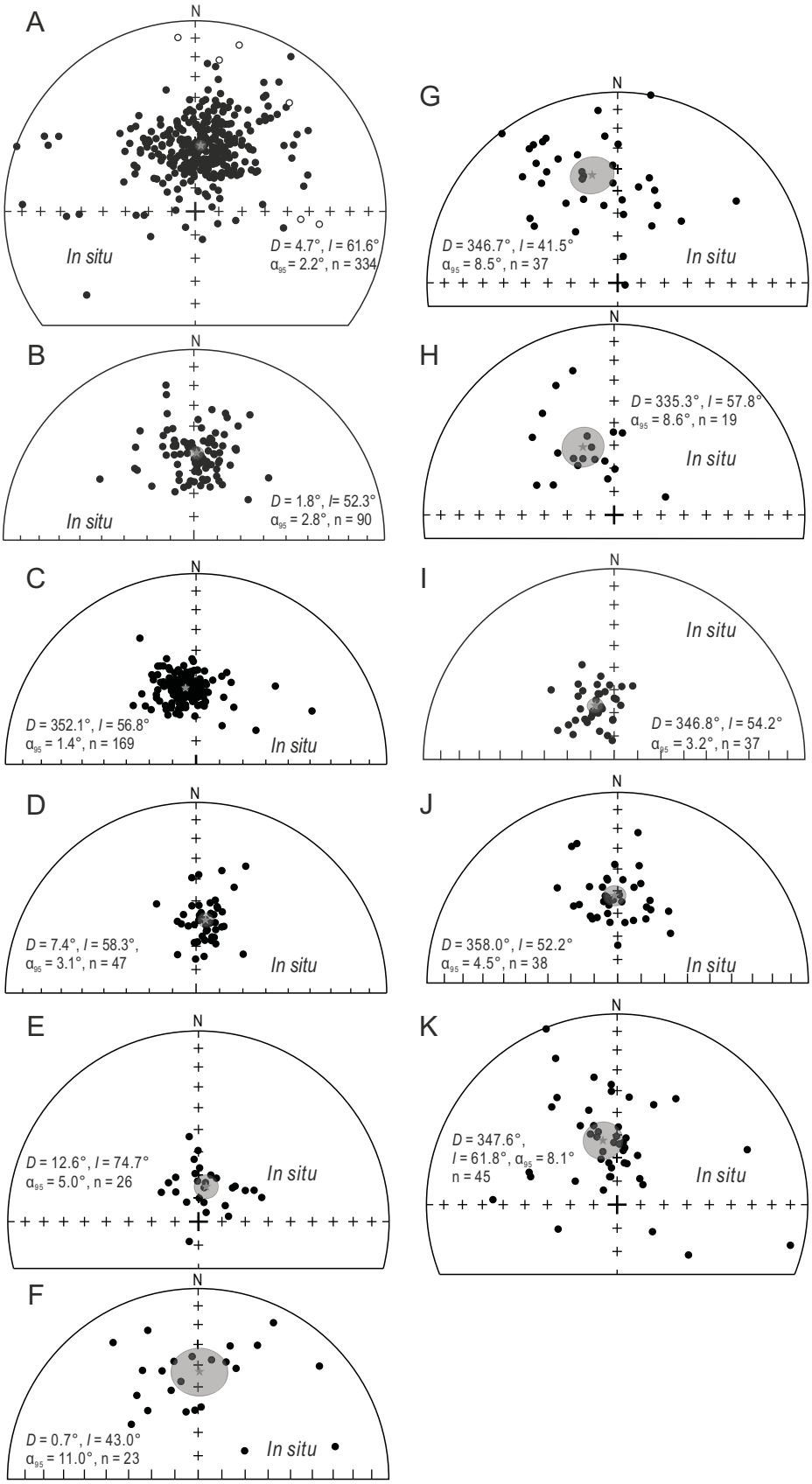

B
Diaoyutai Fm (Dalian region)
18DY04-1
n=94/101
1617
1197
1156
1797
1473
1156 ± 7.7 Ma (n = 10)
3094±11
(n=1)
Number
Zircon Age (Ma)


16QT01B
$^{206}Pb/^{238}U$
$^{207}Pb/^{235}U$


C
Qiaotou Fm (Dalian region)
16QT01B
n=115/120
1609
1181
1181 ± 12 Ma (n = 36)
Number
Zircon Age (Ma)


17SX04
$^{206}Pb/^{238}U$
$^{207}Pb/^{235}U$


D
Shouxian Fm (Huainan region)
17SX04
n=100/110
1084
1194
1427
1592
1084 ± 10 Ma (n = 24)
Number
Zircon Age (Ma)


A
N
In situ
D = 4.7°, I = 61.6°
α95 = 2.2°, n = 334
B
N
In situ
D = 1.8°, I= 52.3°
α95 = 2.8°, n = 90
C
N
D = 352.1°, I = 56.8°
α95 = 1.4°, n = 169
In situ
D
N
D = 7.4°, I = 58.3°,
α95 = 3.1°, n = 47
In situ
E
N
D = 12.6°, I = 74.7°
α95 = 5.0°, n = 26
In situ
F
N
D = 0.7°, I = 43.0°
α95 = 11.0°, n = 23
In situ
G
N
D = 346.7°, I = 41.5°
α95 = 8.5°, n = 37
In situ
H
N
D = 335.3°, I = 57.8°
α95 = 8.6°, n = 19
In situ
I
N
In situ
D = 346.8°, I = 54.2°
α95 = 3.2°, n = 37
J
N
D = 358.0°, I = 52.2°
α95 = 4.5°, n = 38
In situ
K
N
D = 347.6°,
I = 61.8°, α95 = 8.1°
n = 45
In situ