FIRE CERTIFICATE

2 HOURS

NEW YORK CITY DEPT. OF BUILDINGS

MEA 200-08-M

INDOOR AND OUTDOOR APPLICATION FOR CLASS I AND CLASS II BUILDINGS

NYC Department of Buildings
280 Broadway, New York, NY 10007
Robert D. LiMandri, Acting Commissioner
(212) 566-5000, TTY: (212) 566-4769

Report of Materials and Equipment Acceptance Division

Pursuant to Administrative Code Section 27-131, the following equipment or material has been found acceptable for use subject to the terms and conditions contained herein.

MEA 200-08-M

Manufacturer:	Superior Products International II, Inc. 10835 West 78th Street Shawnee, KS 66214
Trade Name(s):	OmegaFire System
Product:	Ceramic-filled fire protection coating system for interior or exterior applications on steel MEA Index #440-70 - Coating
Pertinent Code Section(s):	27-133, 27-323, 27-324
Prescribed Test(s):	RS 5-2 (ASTM E119), RS 5-5 (ASTM E84)
Laboratory:	VTEC Laboratories, Inc.
Test Report(s):	V100-2309-2 (ASTM E84) dated February 2, 2006, Revision 1.0 dated June 13, 2008. V100-2830-4 (ASTM E119) dated July 11, 2008.

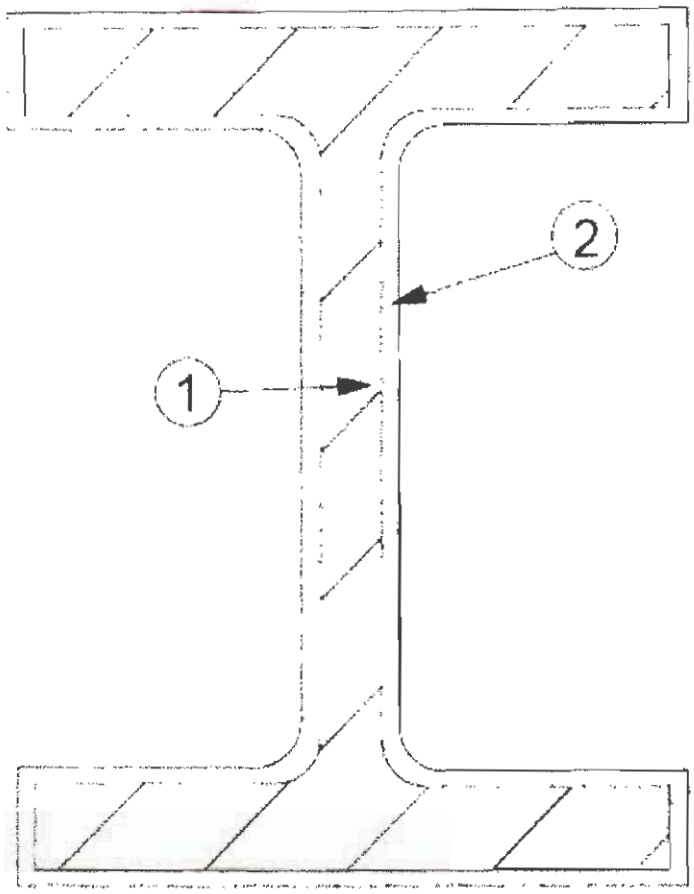
Description: OmegaFire System is a high-performance fire protection ceramic-filled coating system that can be applied to structural steel columns. This one-part water based fire protection material can be used for indoor or outdoor application for Class I buildings. The OmegaFire System can be applied with commercial spray equipment or troweled, and provide up to 2 hours of fire protection. Once cured and over coated with a Superior weather protective coating, it forms a hard surface that is weather- and abuse- resistant. No need for overcoat for interior use.

Flame Spread Rating: 10
Smoke Developed Rating: 30

Superior Products International II Inc.:

ASTM E119 Set-Up for Omega Fire Coating

Ratings —2 Hr.



1. **Steel Column** — Wide flange steel columns of W10x49 8-ft. The column surfaces were free of dirt, loose scale and oil. Plates were welded to the top and bottom of the I-beam to simulate the I-beam's end use.

2. **Ceramic-filled Coating System** — The steel columns were primed with Hot Pipe Coating at a thickness of 0.75 inches. Omega Fire Coating was applied over the Hot Pipe Coating at a dry thickness of 0.50 inches

Terms and Conditions: The above-described column protection assemblies are accepted for Class I and Class II Buildings only, as having the fire resistance ratings given above, when members framing into the columns have at least the same fire resistance rating, provided that following requirements for application and protection of the intumescent coating fireproofing be adhered to:

1. Where used in Class I Buildings, subject material shall be used for fireproofing of selected structural members and shall be limited to 20% of the gross area of all structural members o any one floor and a maximum of 20% of the gross area of all structural members in the entire building.
2. Where used for protection of floor column(s) in fireproofing buildings each such column(s) shall bear an identifying tag installed 7'-0" above finished floor. Subject tag shall be of metal construction mechanically attached to such column(s) and shall state the following: "This beam has been fireproofed with MEA approved OmegaFire finish and such finish shall not be removed" nor any subsequent coating shall be applied other than OmegaFire.
3. Surfaces to receive intumescent coating shall be cleaned prior to the application of the fireproofing.
4. The finished fireproofing shall be applied to a uniformed thickness, and shall not be less than the minimum thickness specified.
5. The general contractor and the owner shall provide qualified personnel to supervise the application on the sprayed fire-resistive material. They shall certify to the Department of Buildings that the finished fire-proofing of the completed building is in full compliance with the acceptance requirements and drawings approved by the Department of Buildings.
6. The installation of the sprayed fire resistive-material shall be subject to the controlled inspection requirements of Section 27-132.
7. The use of this material shall be subject to all pertinent regulations of the Department of Air Resources and the Department of Health.
8. All installations shall comply with 118-68 GR, the New York City Building Code, the Fire Department Directives, the manufacturer's instructions and laboratory recommendations.
9. All shipments and deliveries of the materials, comprising of this assembly, shall be accompanied by a certificate or label certifying that the materials shipped or delivered are equivalent to those tested and are accepted for use, as provided for in Section 27-131 of the New York City Building Code.

Final Acceptance September 18, 2008

Examined By Simon Devkhodam

VTEC Laboratories Inc.

15 July 08

Mr. Siun Derkhidam
New York City Department of Buildings
Materials/Equipment Acceptance Division
7th Floor
280 Broadway
New York, NY 10007

Subject: NYCMEA Application for Superior Products International II Inc.-Omega Fire

Dear Mr. Derkhidam,

Enclosed is a package for the MEA Application for Superior Products International Inc. This package contains the following:

1)VTEC Report for ASTM E 119, V100-2830-4
2) Omega Fire product data sheet

MEA 1, MEA 2, and MEA 3 forms were previously sent, as well as CDs with MEA 3, payment for $600 to Dept of Buildings, and VTEC Reports for ASTM E 84.
This report should complete the MEA application for Superior Products International Inc. If, however, something additional is needed, please do not hesitate to contact me.

Very truly yours,

Neil Schultz
Executive Director

Encls

212 Manida Street • Bronx, New York 10474 • (718) 542-8248 • Fax: (718) 542-8759 • www.vteclabs.com

ASTM E119
I-BEAM FIRE TESTING
FOR
SUPERIOR PRODUCTS
ON
HOT PIPE COATING AND OMEGA FIRE
ON 8' HIGH I-BEAM
VTEC #100-2830-4
TESTED: JULY 11, 2008

VTEC Laboratories Inc.

July 15, 2008

Client: Superior Products
10835 W. 78th Street
Shawnee, KS 66214

Attention: J. E. Pritchett

Subject: ASTM E119 Fire Endurance Testing on Coated Steel I-Beam

SAMPLE DESCRIPTION:

The sample was identified as follows: a W10x49 8-ft. high steel I-beam coated with Omega Fire and Hot Pipe Coating. Plates were welded to the top and bottom of the I-beam to simulate the I-beam's end use. Lifting hooks were mounted on the top and bottom plates of the I-beam.

Five thermocouples were inserted into the I-beam as noted on the drawing (see Page 4). First, a 1/16" hole was drilled halfway into the steel, and the thermocouple was inserted. Then the thermocouple was peened into the steel with a hammer and punch to make a tight fit.

The Hot Pipe Coating was applied at a dry thickness of 750 mils. The Omega Fire Coating was applied over the Hot Pipe Coating at a dry thickness of 500 mils.

Notice: VTEC Laboratories Inc. will not be liable for any loss or damage resulting from the use of the data in this report, in excess of the invoice. This report pertains to the sample tested only. Such report shall not be interpreted to be a warranty, either expressed or implied as to the suitability or fitness of said sample for such uses or applications, as the party contracting for the report may apply such sample.

Disclaimer: This test should be used to measure and describe the properties of materials, products or assemblies in response to heat and flame under controlled laboratory conditions. It should not be used to describe or appraise the fire hazards or fire risks of materials, products, or assemblies under actual fire conditions. However, results of this test may be used as elements of a fire risk assessment, that takes into account all of the factors that are pertinent to an assessment of fire hazard of a particular end use.

PROCEDURE:

The furnace measures nominally 5 ft x 5 ft x 7 ft. The outside construction is steel and the furnace is lined with a ceramic refractory insulation. Four burners, one centered on each wall, provide uniform heat. Each burner is rated for 1.5 million Btu/hr and is of the flat flame or non-impinging flame design. Furnace conditions are monitored by six 1/4" grounded Inconel-sheathed chromel-alumel thermocouples.

The endpoint for the ASTM E119 Column Test occurs when all the thermocouples on the sample reach an average of 1000°F, or any individual thermocouple on the sample exceeds 1200°F.

OBSERVATIONS & RESULTS:

At 121 minutes, thermocouple #5 exceeded 1,200ºF. At 125 minutes, the average of all thermocouples exceeded 1,000ºF.

At 133 minutes the furnace was shut off and the test was stopped.

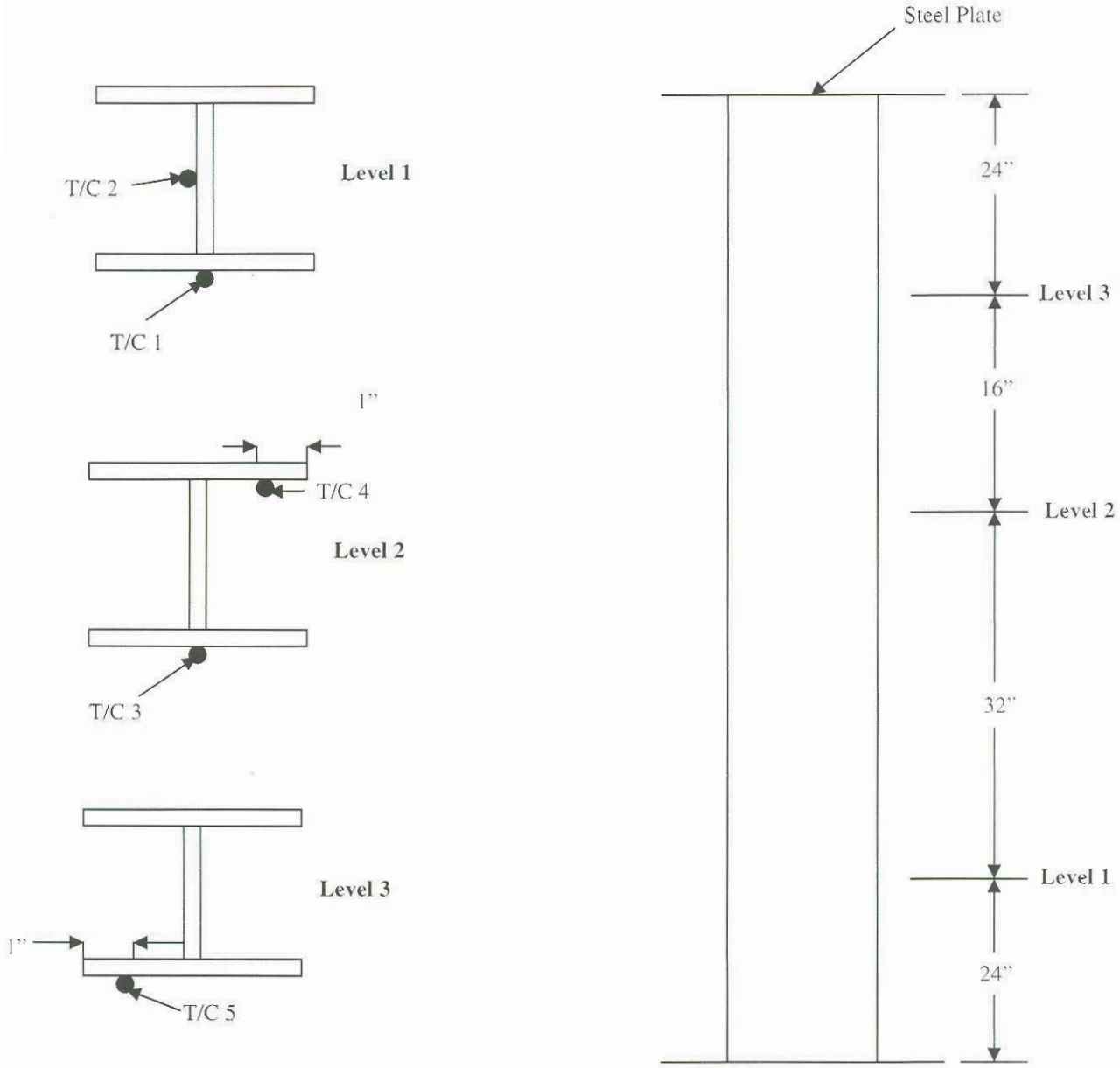
The actual time-temperature data appears on the following pages.

Neil Schultz
Executive Director

A-Rahim

Amirudin Rahim
Technical Director

THERMOCOUPLE LOCATIONS



VTEC #100-2830-4 SUPERIOR PRODUCTS INTERNATIONAL II INC. ASTM E119

Time	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6	Channel 7	Channel 8	Channel 9	Channel 10	Channel 11	Channel 12	Channel 13
	Sample	*Sample*	*Sample*	*Sample*	*Sample*	*Furnace*	*Furnace*	*Furnace*	*Furnace*	*Furnace*	*Furnace*	*Sample Avg.*	*Furnace Avg.*
Mins.	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F
0	80	81	80	80	80	78	80	81	80	82	80	80	80
1	80	80	80	80	80	400	300	198	315	376	284	80	312
2	80	80	80	80	80	870	666	412	787	963	617	80	719
3	80	79	81	80	80	1191	932	581	1129	1275	839	80	991
4	80	79	80	81	80	1347	1100	733	1245	1416	1038	80	1146
5	81	79	81	80	80	1409	1192	837	1284	1357	1111	80	1198
6	82	79	81	81	80	1504	1255	921	1350	1384	1167	80	1263
7	83	79	82	83	80	1578	1324	996	1442	1496	1245	81	1347
8	85	78	83	85	80	1650	1386	1066	1541	1574	1310	82	1421
9	87	79	85	87	80	1700	1424	1139	1618	1658	1395	83	1489
10	89	79	87	89	80	1766	1471	1200	1680	1705	1424	85	1541
11	92	79	89	92	81	1804	1533	1236	1739	1753	1464	86	1588
12	95	79	91	95	81	1862	1551	1268	1737	1734	1495	88	1608
13	99	80	94	98	82	1860	1570	1288	1746	1731	1517	90	1619
14	103	81	97	102	83	1842	1582	1299	1749	1742	1540	93	1626
15	106	82	100	107	84	1834	1579	1295	1747	1738	1560	96	1625
16	111	84	104	111	85	1828	1585	1331	1753	1739	1575	99	1635
17	115	86	107	116	87	1826	1607	1333	1760	1739	1603	102	1645
18	120	88	111	122	89	1827	1622	1307	1759	1740	1623	106	1646
19	125	90	116	128	91	1827	1638	1366	1754	1737	1624	110	1658
20	130	93	121	134	93	1826	1655	1352	1759	1743	1643	114	1663
21	136	97	126	141	96	1813	1666	1355	1756	1730	1655	119	1663
22	142	99	131	148	99	1817	1668	1274	1754	1726	1670	124	1652
23	148	103	137	155	102	1813	1672	1284	1753	1726	1668	129	1653
24	155	106	143	162	105	1807	1670	1235	1751	1719	1691	134	1646
25	161	110	149	170	108	1806	1668	1229	1751	1720	1692	140	1644
26	168	114	156	177	112	1800	1681	1239	1743	1716	1695	145	1646
27	176	117	162	184	115	1790	1691	1170	1741	1712	1708	151	1635
28	183	121	169	191	119	1794	1686	1186	1739	1713	1706	157	1637
29	190	125	176	198	123	1789	1695	1155	1742	1708	1713	163	1634
30	197	129	183	205	127	1789	1695	1208	1738	1710	1700	168	1640
31	203	134	190	211	132	1782	1702	1205	1734	1706	1707	174	1639
32	210	138	196	217	137	1784	1701	1197	1735	1705	1705	180	1638
33	217	143	202	224	141	1780	1705	1227	1737	1713	1703	185	1644
34	224	147	207	228	146	1780	1711	1194	1737	1706	1703	191	1639
35	231	152	212	231	151	1774	1693	1156	1738	1712	1701	196	1629
36	238	157	218	235	157	1772	1723	1181	1736	1703	1696	201	1635
37	245	162	224	242	162	1773	1715	1202	1734	1707	1702	207	1639
38	252	167	230	251	167	1773	1726	1184	1736	1702	1696	213	1636
39	260	172	238	258	173	1774	1711	1183	1733	1698	1693	220	1632

JULY 11, 2008

VTEC #100-2830-4 SUPERIOR PRODUCTS INTERNATIONAL II INC. ASTM E119

Time	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6	Channel 7	Channel 8	Channel 9	Channel 10	Channel 11	Channel 12	Channel 13
	Sample	*Sample*	*Sample*	*Sample*	*Sample*	*Furnace*	*Furnace*	*Furnace*	*Furnace*	*Furnace*	*Furnace*	*Sample Avg.*	*Furnace Avg.*
Mins.	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F
40	267	178	244	267	178	1766	1722	1195	1735	1702	1691	227	1635
41	275	182	250	275	183	1769	1723	1175	1730	1699	1686	233	1630
42	283	187	257	282	190	1768	1711	1177	1730	1699	1686	240	1628
43	291	192	264	290	199	1771	1710	1187	1728	1699	1681	247	1629
44	298	196	271	298	205	1764	1704	1171	1726	1698	1675	254	1623
45	306	200	278	306	208	1761	1703	1182	1727	1698	1676	260	1624
46	314	205	284	314	210	1760	1700	1158	1728	1694	1676	265	1619
47	321	208	291	321	212	1759	1697	1178	1724	1699	1670	271	1621
48	329	212	298	329	215	1762	1698	1211	1723	1692	1670	277	1626
49	337	216	305	337	219	1753	1694	1164	1718	1690	1663	283	1614
50	344	219	312	344	224	1752	1690	1169	1717	1684	1659	289	1612
51	352	223	318	352	229	1751	1691	1198	1717	1688	1661	295	1618
52	359	226	326	360	235	1747	1680	1166	1717	1682	1658	301	1609
53	367	230	332	367	241	1747	1682	1193	1711	1683	1649	307	1611
54	374	234	339	374	247	1744	1679	1171	1709	1681	1651	314	1606
55	381	238	346	382	254	1748	1678	1191	1707	1677	1645	320	1608
56	389	242	353	389	261	1743	1677	1173	1711	1676	1649	327	1605
57	395	246	359	397	268	1751	1677	1186	1713	1687	1645	333	1610
58	403	253	366	405	275	1817	1701	1202	1755	1725	1668	340	1645
59	410	258	372	412	282	1835	1718	1224	1772	1751	1685	347	1664
60	418	264	378	420	289	1845	1734	1228	1787	1757	1699	354	1675
61	425	270	385	427	297	1861	1735	1248	1795	1767	1709	361	1686
62	433	276	392	435	304	1857	1747	1283	1803	1778	1716	368	1697
63	441	283	399	443	311	1868	1751	1333	1804	1778	1727	375	1710
64	449	291	406	451	319	1868	1756	1323	1808	1779	1724	383	1710
65	457	299	413	459	326	1877	1758	1334	1813	1792	1732	391	1718
66	465	307	420	467	332	1876	1761	1367	1822	1795	1735	398	1726
67	471	315	428	476	340	1890	1764	1372	1822	1804	1743	406	1733
68	479	323	436	484	347	1893	1770	1377	1830	1800	1749	414	1737
69	487	331	442	491	354	1890	1773	1382	1834	1807	1748	421	1739
70	485	340	450	500	362	1895	1782	1376	1834	1811	1753	427	1742
71	497	348	457	507	369	1902	1784	1385	1839	1810	1757	436	1746
72	506	357	465	516	376	1904	1785	1404	1839	1820	1764	444	1753
73	515	365	473	524	384	1899	1785	1415	1841	1816	1765	452	1754
74	524	375	481	532	391	1895	1790	1437	1842	1817	1762	460	1757
75	532	383	489	540	399	1899	1788	1443	1844	1817	1765	469	1759
76	540	392	496	548	407	1902	1793	1447	1842	1820	1769	477	1762
77	548	401	505	556	414	1899	1790	1447	1845	1825	1775	485	1763
78	554	410	512	564	422	1901	1787	1445	1850	1826	1773	492	1764
79	559	419	520	573	430	1899	1793	1444	1851	1821	1773	500	1764

JULY 11, 2008

Time	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6	Channel 7	Channel 8	Channel 9	Channel 10	Channel 11	Channel 12	Channel 13
	Sample	*Sample*	*Sample*	*Sample*	*Sample*	*Furnace*	*Furnace*	*Furnace*	*Furnace*	*Furnace*	*Furnace*	*Sample Avg.*	*Furnace Avg.*
Mins.	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F
80	567	428	528	569	437	1905	1794	1437	1850	1823	1769	506	1763
81	566	436	536	593	445	1901	1793	1445	1852	1828	1772	515	1765
82	568	445	543	596	453	1906	1790	1425	1855	1827	1777	521	1763
83	579	453	551	605	460	1908	1791	1460	1853	1827	1778	530	1769
84	591	461	559	614	468	1909	1799	1466	1853	1822	1775	539	1771
85	597	470	567	621	475	1900	1798	1483	1852	1829	1780	546	1774
86	606	478	575	632	483	1903	1795	1485	1857	1832	1777	555	1775
87	617	487	585	642	491	1909	1795	1514	1852	1826	1777	565	1779
88	609	496	593	651	499	1900	1796	1518	1856	1826	1780	569	1779
89	619	504	600	652	506	1908	1800	1500	1856	1826	1781	576	1778
90	611	512	605	661	514	1901	1795	1509	1858	1831	1778	581	1779
91	618	522	617	669	521	1903	1793	1508	1861	1834	1780	590	1780
92	630	530	626	680	529	1904	1802	1524	1862	1828	1782	599	1784
93	636	539	633	690	581	1911	1799	1533	1860	1834	1786	616	1787
94	641	549	641	694	578	1923	1803	1519	1870	1841	1786	621	1790
95	646	558	648	702	573	1925	1811	1528	1873	1848	1793	626	1796
96	651	567	656	710	567	1927	1810	1576	1879	1850	1792	630	1806
97	657	577	658	721	560	1936	1816	1413	1884	1854	1806	634	1785
98	662	584	666	730	559	1936	1819	1437	1885	1851	1803	640	1788
99	667	594	671	736	553	1942	1818	1449	1884	1856	1805	644	1793
100	673	606	653	746	545	1944	1824	1440	1895	1865	1810	645	1796
101	678	618	670	753	538	1958	1833	1484	1903	1876	1819	651	1812
102	683	626	672	759	537	1967	1839	1499	1912	1886	1822	655	1821
103	688	636	681	773	517	1972	1843	1480	1910	1888	1828	659	1820
104	694	649	687	774	492	1977	1850	1492	1919	1889	1836	659	1827
105	699	658	688	785	465	1970	1847	1483	1921	1899	1835	659	1826
106	704	668	695	794	434	1983	1853	1622	1921	1894	1840	659	1852
107	709	676	701	804	413	1982	1857	1614	1930	1900	1843	661	1854
108	715	685	702	819	410	1984	1855	1854	1928	1907	1840	666	1895
109	720	689	703	822	341	1971	1856	1782	1917	1898	1842	655	1878
110	725	695	706	828	290	1956	1848	1588	1912	1883	1839	649	1838
111	730	701	731	836	307	1955	1844	1635	1908	1886	1830	661	1843
112	736	707	943	846	355	1950	1837	1595	1904	1881	1828	717	1832
113	741	712	965	853	427	1948	1838	1577	1900	1877	1825	739	1827
114	746	719	999	858	429	1941	1836	1459	1895	1882	1824	750	1806
115	752	727	1029	866	477	1945	1831	1471	1893	1869	1819	770	1805
116	757	742	1079	874	482	1958	1836	1555	1903	1883	1820	787	1826
117	762	745	1098	885	509	1954	1833	1556	1905	1885	1824	800	1826
118	767	754	1100	891	576	1952	1835	1557	1905	1885	1822	818	1826
119	773	767	1103	898	618	1965	1839	1559	1909	1891	1823	832	1831

Time	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6	Channel 7	Channel 8	Channel 9	Channel 10	Channel 11	Channel 12	Channel 13
	Sample	*Sample*	*Sample*	*Sample*	*Sample*	*Furnace*	*Furnace*	*Furnace*	*Furnace*	*Furnace*	*Furnace*	*Sample Avg.*	*Furnace Avg.*
Mins.	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F	Deg. F
120	778	773	1110	907	934	1962	1835	1534	1908	1891	1829	900	1827
121	783	785	1122	908	1250	1960	1833	1520	1908	1892	1824	970	1823
122	788	789	1126	916	1275	1960	1833	1510	1905	1893	1825	979	1821
123	794	797	1127	927	1289	1960	1830	1512	1906	1889	1823	987	1820
124	799	809	1153	936	1296	1965	1833	1534	1906	1886	1821	999	1824
125	804	820	1155	944	1353	1962	1828	1493	1912	1898	1831	1015	1821
126	809	831	1165	952	1376	1986	1841	1552	1925	1910	1834	1027	1841
127	815	844	1168	957	1391	2000	1848	1556	1933	1908	1839	1035	1847
128	820	857	1194	967	1402	1999	1843	1549	1931	1913	1848	1048	1847
129	825	866	1197	976	1417	2003	1849	1566	1938	1916	1844	1056	1853
130	831	879	1206	984	1430	2006	1858	1562	1934	1918	1845	1066	1854
131	836	889	1223	991	1447	2007	1854	1575	1944	1920	1852	1077	1859
132	841	897	1238	1001	1468	2004	1853	1601	1939	1920	1847	1089	1861
133	846	900	1262	1006	1500	1978	1851	1584	1936	1910	1844	1103	1851