

**Missouri
Agricultural Liming
Materials Report**

July 1 to December 31, 2003

Agricultural Experiment Station

University of Missouri-Columbia

TABLE 1

AGRICULTURAL LIMING MATERIALS SAMPLED FROM
JULY 1 THROUGH DECEMBER 31, 2003

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg

This bulletin is a detailed report of official samples obtained under the Missouri Agricultural Liming Materials Law collected from July 1 through December 31, 2003. There were 1033 official samples collected in this period. All samples are analyzed to determine fineness of grind, calcium carbonate equivalent (CCE), and magnesium content (Mg). Effective neutralizing material (ENM) and effective magnesium (EMg) are calculated from this information, as prescribed by Rule, for each dry sample which meets the minimum specifications of at least 90% passing a U.S. No. 8 sieve and minimum 65% CCE. Products not meeting minimum specifications cannot be sold as agricultural liming materials. Twenty-two deficient samples are reported, fifteen for excessive coarseness and seven for low CCE. There were four "stop sale" order's issued against producer stockpiles for excessive coarseness. Corrective actions taken by the producers have resulted in the release of three of the issued "stop sale" orders.

Table 1 lists registered producers and samples obtained at production sites. Table 2 lists samples obtained from retail distributor stockpiles, by producer.

MISSOURI AGRICULTURAL LIMING MATERIALS TONNAGE
REPORTED SINCE AUGUST 13, 1976

YEAR	SPRING	FALL	TOTAL
1976	-----	2,514,500	-----
1977	1,590,700	1,166,600	2,757,300
1978	1,116,100	2,546,250	3,662,350
1979	975,300	3,068,900	4,044,200
1980	1,431,000	2,266,900	3,697,900
1981	1,336,750	1,228,350	2,565,100
1982	825,100	1,029,000	1,854,100
1983	872,700	1,154,700	2,027,400
1984	595,725	899,459	1,495,185
1985	611,050	783,575	1,394,625
1986	967,375	646,115	1,613,490
1987	1,104,358	1,558,171	2,662,529
1988	1,036,917	1,605,444	2,642,361
1989	939,831	1,586,398	2,526,229
1990	504,100	1,204,551	1,708,651
1991	646,864	835,603	1,482,467
1992	859,648	771,536	1,631,184
1993	397,607	686,345	1,083,952
1994	681,464	967,450	1,648,914
1995	720,140	1,207,663	1,927,803
1996	704,151	886,627	1,590,778
1997	779,876	1,063,760	1,843,636
1998	626,186	1,048,308	1,674,494
1999	606,847	1,557,259	2,164,106
2000	886,861	996,123	1,882,984
2001	512,964	1,311,614	1,824,578
2002	696,473	1,079,130	1,775,603
2003	596,438	829,574	1,426,012

* PRELIMINARY ESTIMATE

* Does not meet minimum specification for Agricultural Liming Material.

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JULY 1 THROUGH DECEMBER 31, 2003

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
76 QUARRY, MANSFIELD, MO										
Stockpile #1										
Lab #1088	08-22-03	0.2	43.6	7.9	48.3	85.9	10.2	63.9	439	130
Lab #1269	09-22-03	0.0	48.4	6.9	44.7	87.9	10.0	60.9	429	122
Lab #1896	12-08-03	0.1	50.0	6.8	43.1	89.0	10.5	59.7	425	125
ADRIAN ROCK, INC, BUTLER, MO										
Stockpile #1										
Lab #1105	08-27-03	0.1	47.6	11.3	41.0	80.5	0.6	59.7	384	7
Lab #1184	09-11-03	0.3	41.5	12.6	45.6	84.8	0.4	63.5	431	5
Lab #1326	10-01-03	0.0	46.9	11.1	42.0	83.3	0.7	60.4	402	8
Lab #1633	11-05-03	2.0	40.0	12.9	45.1	83.3	0.7	62.8	419	9
ADRIAN QUARRY LLC, ADRIAN, MO										
AIRGAS - MID AMERICA, MOUNTAIN GROVE, MO										
Stockpile #1										
Lab #1788	11-25-03	0.0	0.6	0.6	98.8	110.8	0.2	99.3	880	4
ALBY QUARRY, CARLINVILLE, IL										
ALLEN QUARRIES INC, LOCKWOOD, MO										
Stockpile #1										
Lab #1034	08-12-03	1.7	46.6	14.0	37.7	95.3	1.6	57.8	440	18
Lab #1424	10-08-03	2.2	52.1	13.0	32.7	89.0	0.6	53.5	381	6
Lab #1899	12-11-03	1.4	47.6	14.3	36.7	94.3	1.5	57.2	431	17
APAC-MISSOURI, INC. - BOONVILLE, COLUMBIA, MO										
Stockpile #1										
Lab #0936	08-05-03	1.1	49.2	13.9	35.8	96.0	0.1	56.4	433	1
Lab #1266	09-26-03	1.2	50.1	14.0	34.7	96.2	0.1	55.6	428	1
Lab #1509	10-22-03	1.7	46.7	14.5	37.1	96.9	0.1	57.5	446	1
Lab #1643	11-10-03	2.5	46.3	15.1	36.1	96.2	0.1	56.7	437	1
APAC-MISSOURI, INC. - LANAGAN, SPRINGFIELD, MO										
Stockpile #1										
Lab #0959	08-05-03	2.1	39.3	12.8	45.8	90.0	0.8	63.3	456	10
Lab #1272	09-23-03	1.4	41.0	13.5	44.1	90.0	0.8	62.5	450	10
Lab #1553	10-29-03	0.2	42.9	16.1	40.8	88.6	0.6	61.2	434	7
Lab #1854	12-02-03	0.2	42.6	14.5	42.7	88.4	0.6	62.1	439	7
APAC-MISSOURI, INC. - LINN CREEK, LINN CREEK, MO										
Stockpile #2										
Lab #1421	10-09-03	0.4	43.0	14.8	41.8	95.9	11.3	61.4	471	139
APAC-MISSOURI, INC. - COLUMBIA, SPRINGFIELD, MO										
Stockpile #2										
Lab #1086	08-22-03	0.8	31.6	9.7	57.9	91.9	10.9	71.6	527	156
Lab #1426	10-10-03	2.0	33.0	9.9	55.1	91.0	10.5	69.3	504	146
Lab #1715	11-21-03	2.1	33.6	10.1	54.2	91.7	10.4	68.7	504	143
APAC-MISSOURI, INC. - MARSHALL, MARSHALL, MO										
Stockpile #1										
Lab #0994	08-08-03	4.7	48.6	8.2	38.5	88.7	4.0	55.6	394	44
Lab #1163	09-05-03	4.0	56.4	9.5	30.1	94.8	1.0	49.9	378	10
Lab #1381	10-02-03	4.4	53.8	9.9	31.9	91.7	1.3	51.3	376	13
Lab #1524	10-27-03	3.5	52.0	10.4	34.1	90.9	0.2	53.3	388	2
Lab #1661	11-14-03	3.8	50.6	9.5	36.1	86.4	2.3	54.5	376	25
APAC-MISSOURI, INC. - NETTLETON, COLUMBIA, MO										
APAC MISSOURI CENTRAL COMPANIES, OSAGE BEACH, MO										
Stockpile #1										
Lab #1466	10-30-01	10.0	46.1	10.5	33.4	97.4	0.8	51.2	399	8
Lab #1422	10-09-03	2.2	46.0	14.3	37.5	84.2	10.1	57.6	388	116
APAC-MISSOURI INC. - ROARK CREEK, SPRINGFIELD, MO										
Stockpile #1										
Lab #1087	08-22-03	0.6	38.9	11.3	49.2	92.9	11.1	65.7	488	146
Lab #1267	09-22-03	0.8	44.5	9.3	45.4	92.5	10.4	62.1	460	129
Lab #1895	12-08-03	0.8	44.5	9.2	45.5	91.6	10.9	62.1	455	135
ARKANSAS LIME COMPANY, INC., BATESVILLE, AR										
ASC MINERALS PROCESSING, ALLERTON, IL										
ASH GROVE AGGREGATES INC-APPLETON, BUTLER, MO										
Stockpile #1										
Lab #1084	08-22-03	0.3	50.2	13.1	36.4	82.4	1.0	56.8	374	11
Lab #1423	10-10-03	0.4	49.4	11.8	38.4	79.2	0.9	57.8	366	10
Lab #1842	12-01-03	0.2	49.1	12.3	38.4	81.5	0.9	58.1	379	10

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JULY 1 THROUGH DECEMBER 31, 2003

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
ASH GROVE AGGREGATES-ELDORADO SPRINGS, BUTLER, MO										
Stockpile #1										
Lab #0934	08-06-03	0.1	43.1	13.2	43.6	93.5	0.7	62.3	466	9
ASH GROVE AGGREGATES-FAIR GROVE, BUTLER, MO										
Stockpile #1										
Lab #1038	08-14-03	0.8	50.6	8.0	40.6	91.7	10.4	58.1	426	121
Lab #1457	10-14-03	0.7	51.8	7.3	40.2	90.1	11.1	57.5	415	128
Lab #1858	12-03-03	1.0	54.4	6.8	37.8	91.4	11.0	55.5	406	122
ASH GROVE AGGREGATES INC-BUTLER, BUTLER, MO										
Stockpile #1										
Lab #1079	08-20-03	0.8	54.6	12.1	32.5	82.4	0.6	53.4	352	6
Lab #1441	10-14-03	2.4	56.7	10.8	30.1	83.5	0.6	50.8	339	6
Lab #1656	11-13-03	1.9	55.4	11.4	31.3	83.6	0.6	52.0	348	6
Stockpile #2										
Lab #1080	08-20-03	3.5	56.0	10.6	29.9	85.1	1.3	50.3	342	13
Lab #1442	10-14-03	2.5	56.0	10.3	31.2	82.6	1.4	51.4	340	14
Lab #1657	11-13-03	2.8	55.2	10.8	31.2	83.9	1.3	51.5	346	13
Stockpile #3										
Lab #1081	08-20-03	3.4	58.6	11.1	26.9	85.7	0.8	48.2	331	8
Lab #1443	10-14-03	3.1	53.2	12.1	31.6	85.9	0.8	52.2	358	8
Lab #1658	11-13-03	3.5	53.2	11.2	32.1	85.4	0.8	52.1	356	8
ASH GROVE AGGREGATES INC-RICHHILL, BUTLER, MO										
Stockpile #1										
Lab #1709	11-18-03	0.0	49.5	13.6	36.9	78.5	0.4	57.4	361	5
Lab #1852	12-05-03	0.0	44.1	12.5	43.4	73.2	0.4	61.9	363	5
Lab #1904	12-11-03	0.0	48.4	10.3	41.3	74.8	0.5	59.6	357	6
ASH GROVE AGGREGATES INC-LACYGNE, BUTLER, MO										
Stockpile #3										
Lab #1108	08-27-03	4.1	50.8	9.6	35.5	91.4	0.8	54.0	395	9
Lab #1329	10-01-03	1.2	47.1	10.8	40.9	83.7	1.0	59.2	396	12
Lab #1636	11-05-03	1.9	43.3	10.5	44.3	84.9	1.5	61.4	417	18
Stockpile #4										
Lab #1330	10-01-03	1.8	45.4	10.2	42.6	82.0	1.1	60.1	394	13
Lab #1637	11-05-03	2.2	45.4	10.8	41.6	86.0	0.8	59.4	409	10
ASH GROVE AGGREGATES INC-MARSHFIELD, BUTLER, MO										
Stockpile #3										
Lab #1211	09-10-03	4.7	55.1	9.8	30.4	82.2	9.9	50.1	329	99
Lab #1714	11-18-03	0.5	50.2	10.6	38.7	87.1	10.0	57.6	401	115
ASH GROVE AGGREGATES INC-MONTEVALLO, BUTLER, MO										
Stockpile #1										
Lab #1004	08-13-03	2.4	45.6	11.7	40.3	88.1	1.3	58.7	414	15
Lab #1419	10-06-03	5.1	46.9	10.1	37.9	86.7	1.5	55.7	386	17
Lab #1790	11-24-03	1.9	42.3	14.2	41.6	88.0	0.7	60.7	427	8
ASH GROVE AGGREGATES INC-OSCEOLA, BUTLER, MO										
Stockpile #1										
Lab #1139	08-29-03	2.3	45.6	10.4	41.7	85.3	0.5	59.3	405	6
Lab #1331	10-03-03	2.9	46.3	10.5	40.3	87.2	0.5	58.2	406	6
Lab #1797	11-24-03	3.6	46.7	10.5	39.2	82.9	0.6	57.2	379	7
ASH GROVE AGGREGATES INC-PITTSBURG, BUTLER, MO										
Stockpile #1										
Lab #0931	08-05-03	2.7	42.9	12.6	41.8	92.2	0.2	60.1	443	2
Lab #1181	09-09-03	2.1	44.8	12.7	40.4	92.7	0.2	59.2	439	2
Lab #1444	10-15-03	1.9	44.7	12.3	41.1	91.8	0.2	59.7	438	2
Lab #1711	11-19-03	1.8	44.6	12.9	40.7	92.0	0.1	59.6	439	1
ASH GROVE AGGREGATES INC-FT SCOTT, BUTLER, MO										
Stockpile #2										
Lab #1752	11-18-03	3.2	42.1	8.4	46.3	83.4	1.3	61.9	413	16
ASH GROVE AGGREGATES INC.-STOCKTON, BUTLER, MO										
Stockpile #1										
Lab #0998	08-11-03	3.7	48.5	13.0	34.8	91.8	0.3	54.7	402	3
Lab #1249	09-24-03	3.6	49.9	12.2	34.3	97.0	0.2	54.1	420	2
Lab #1572	10-31-03	1.9	41.9	15.0	41.2	78.9	0.2	60.7	383	2
Lab #1791	11-24-03	2.6	40.3	15.5	41.6	83.3	0.2	61.0	406	2
Stockpile #2										
Lab #0999	08-11-03	3.6	49.7	13.4	33.3	95.7	0.2	53.8	412	2

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JULY 1 THROUGH DECEMBER 31, 2003

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
ASH GROVE AGGREGATES INC.-STOCKTON, BUTLER, MO (CONTINUED)										
Stockpile #2										
Lab #1250	09-24-03	3.0	50.6	12.8	33.6	95.8	0.1	53.9	413	1
Lab #1573	10-31-03	4.1	51.2	12.3	32.4	94.9	0.2	52.6	399	2
Lab #1792	11-24-03	4.9	50.0	13.0	32.1	96.9	0.2	52.4	406	2
Stockpile #3										
Lab #1000	08-11-03	3.6	48.8	12.9	34.7	94.8	0.2	54.6	414	2
Lab #1251	09-24-03	2.9	47.9	13.7	35.5	94.7	0.1	55.7	422	1
Lab #1574	10-31-03	2.8	49.4	13.8	34.0	92.6	0.2	54.6	405	2
Lab #1793	11-24-03	3.7	50.1	13.5	32.7	91.7	0.2	53.3	391	2
Stockpile #4										
Lab #1001	08-11-03	3.0	48.9	11.5	36.6	94.3	0.1	55.7	420	1
Lab #1252	09-24-03	16.9*	45.2	9.6	28.3	98.9	0.1	45.4	0	0
Lab #1575	10-31-03	2.8	49.1	11.9	36.2	93.8	0.1	55.6	417	1
Lab #1794	11-24-03	1.7	46.5	13.3	38.5	95.1	0.1	58.1	442	1
ASH GROVE AGGREGATES INC-WHEATLAND, BUTLER, MO										
Stockpile #2										
Lab #0933	08-05-03	6.4	46.8	10.3	36.5	93.9	0.1	54.4	409	1
Lab #1183	09-09-03	6.7	45.4	11.2	36.7	94.1	0.2	54.8	412	2
Lab #1446	10-15-03	6.3	45.2	10.8	37.7	90.8	0.1	55.5	403	1
Lab #1710	11-19-03	6.1	43.5	10.4	40.0	86.1	0.1	57.1	393	1
ASH GROVE AGGREGATES INC-FT SCOTT E, BUTLER, MO										
ASH GROVE AGGREGATES INC-BOLIVAR, BUTLER, MO										
Stockpile #1										
Lab #1104	08-26-03	11.1*	46.2	9.1	33.6	97.4	2.0	50.6	0	0
Stockpile #2										
Lab #1486	10-20-03	0.0	48.0	12.4	39.6	95.0	0.2	59.0	449	2
Lab #1845	12-02-03	0.3	51.3	10.1	38.3	95.0	0.2	57.2	435	2
ASH GROVE AGGREGATES INC-BUFFALO, BUTLER, MO										
Stockpile #1										
Lab #1082	08-21-03	0.5	41.6	11.5	46.4	95.4	11.5	63.7	486	147
Lab #1242	09-22-03	0.3	43.2	11.9	44.6	92.3	10.7	62.5	462	134
Lab #1630	11-04-03	0.7	44.4	9.1	45.8	91.9	10.9	62.4	458	136
Lab #1901	12-09-03	1.0	44.9	9.7	44.4	89.3	10.8	61.4	439	133
Stockpile #2										
Lab #1083	08-21-03	0.5	44.5	11.5	43.5	93.3	11.5	61.5	459	142
Lab #1243	09-22-03	0.6	44.5	11.9	43.0	95.3	11.1	61.3	467	136
Lab #1631	11-04-03	5.8	42.0	10.6	41.6	94.3	11.2	58.5	441	131
Lab #1902	12-09-03	0.6	41.3	13.5	44.6	89.8	10.9	63.0	453	137
BAILEY QUARRIES INC-CHESAPEAKE Q., MT VERNON, MO										
Stockpile #4										
Lab #0957	08-04-03	3.0	44.2	8.7	44.1	87.5	10.7	60.4	423	129
Lab #1315	09-29-03	3.0	43.8	9.3	43.9	89.8	10.8	60.4	434	131
Lab #1551	10-28-03	2.7	45.3	10.3	41.7	89.8	11.4	59.2	425	135
BAILEY QUARRIES INC-JANE, JANE, MO										
Stockpile #2										
Lab #0958	08-05-03	2.1	47.3	8.3	42.3	92.4	11.4	59.1	437	135
Lab #1271	09-23-03	3.1	47.5	7.7	41.7	95.6	11.2	58.2	445	130
Lab #1552	10-29-03	4.3	48.9	7.4	39.4	94.4	11.9	56.1	423	133
Lab #1853	12-02-03	8.4	49.6	5.9	36.1	94.8	11.3	52.0	395	118
BAILEY QUARRIES, INC.-MADRY QUARRY, VERONA, MO										
Stockpile #2										
Lab #0963	08-06-03	1.6	56.4	10.7	31.3	84.5	0.9	51.8	350	9
Lab #1276	09-25-03	0.9	53.8	12.4	32.9	83.3	0.9	53.8	358	10
Lab #1674	11-11-03	0.5	48.9	12.5	38.1	85.7	1.1	57.8	396	13
Stockpile #3										
Lab #1277	09-25-03	15.2*	43.1	5.7	36.0	89.7	10.4	50.2	0	0
BAILEY QUARRIES INC-STOCKTON, STOCKTON, MO										
Stockpile #1										
Lab #1003	08-11-03	1.8	44.5	14.6	39.1	94.5	0.1	59.0	446	1
Lab #1248	09-24-03	2.0	45.5	14.4	38.1	93.8	0.1	58.1	436	1
Lab #1570	10-31-03	3.0	46.6	14.7	35.7	96.0	0.1	56.2	431	1
Lab #1795	11-24-03	3.2	48.0	14.4	34.4	95.9	0.1	55.0	422	1
Stockpile #2										
Lab #1002	08-11-03	3.1	48.5	13.4	35.0	96.2	0.1	55.2	425	1

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Distributor	Date Sampled	U.S. Sieve Fraction, %				% CCE	% Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
BAILEY QUARRIES INC-STOCKTON, STOCKTON, MO (CONTINUED)										
Stockpile #2										
Lab #1247	09-24-03	4.1	49.4	13.5	33.0	96.6	0.1	53.5	413	1
Lab #1571	10-31-03	3.5	47.1	14.3	35.1	94.8	0.1	55.5	421	1
Lab #1796	11-24-03	1.6	44.8	14.5	39.1	94.0	0.1	59.0	444	1
BARBER & SONS AGGREGATES, LEE'S SUMMIT, MO										
Stockpile #1										
Lab #0937	08-06-03	10.6*	47.6	9.6	32.2	82.2	0.4	49.9	0	0
Lab #1178	09-09-03	8.4	47.7	10.0	33.9	81.7	1.9	51.8	339	20
Lab #1580	10-13-03	9.5	46.8	8.7	35.0	80.9	1.7	51.9	336	18
Lab #1528	10-28-03	8.6	49.1	7.8	34.5	81.8	1.8	51.5	337	19
Lab #1733	11-20-03	6.2	50.5	9.4	33.9	83.8	0.9	52.2	350	9
BARRETT MATERIALS INC, NEW HAVEN, MO										
Stockpile #1										
Lab #0947	08-07-03	2.7	47.9	6.5	42.9	90.2	10.9	58.8	424	128
Lab #1309	09-25-03	3.9	44.9	7.0	44.2	80.0	9.5	59.6	382	113
Lab #1686	11-12-03	0.5	51.7	7.8	40.0	84.0	9.9	57.6	387	114
Stockpile #2										
Lab #0948	08-07-03	0.1	35.6	8.5	55.8	92.3	10.9	69.8	515	152
Lab #1303	09-25-03	0.3	48.3	8.7	42.7	86.6	10.2	60.0	416	122
Lab #1343	10-02-03	0.3	42.0	10.5	47.2	85.5	10.0	64.0	438	128
BASE ROCK MINERALS, BONNE TERRE, MO										
Stockpile #1										
Lab #1406	10-08-03	0.2	14.3	18.7	66.8	94.9	11.1	81.6	619	181
Lab #1772	11-25-03	0.8	41.3	17.4	40.5	95.6	11.2	61.3	469	137
Lab #1890	12-11-03	1.7	45.5	15.6	37.2	95.8	11.1	57.9	444	129
Stockpile #2										
Lab #1407	10-08-03	0.0	50.6	9.8	39.6	95.2	11.0	58.1	443	128
Lab #1773	11-25-03	0.0	54.3	10.2	35.5	96.3	10.9	55.2	425	120
Lab #1891	12-11-03	0.0	43.8	11.9	44.3	95.4	10.9	62.4	476	136
JAMES ELROD TRUCK SERVICE, BELLE, MO										
Stockpile #1										
Lab #1013	08-13-03	0.4	26.3	11.0	62.3	98.1	3.3	75.5	592	50
Lab #1613	11-05-03	0.2	32.9	12.5	54.4	97.6	2.6	70.1	548	36
Lab #1826	12-04-03	0.1	34.4	12.7	52.8	97.7	3.0	69.0	539	41
BOONE QUARRIES INC - WEST, COLUMBIA, MO										
Stockpile #1										
Lab #0900	07-22-03	0.4	47.0	10.5	42.1	93.8	5.4	60.2	451	65
Lab #0980	08-11-03	0.2	37.4	10.7	51.7	60.5*	6.0	67.5	0	0
Lab #1069	08-25-03	0.3	40.0	12.7	47.0	92.8	6.0	64.6	480	78
Lab #1161	09-08-03	0.6	37.0	11.0	51.4	96.3	3.8	67.3	518	51
Lab #1346	10-06-03	1.2	37.4	10.7	50.7	95.8	3.1	66.5	509	41
Lab #1606	11-07-03	0.2	43.9	12.7	43.2	91.4	5.8	61.8	452	72
Stockpile #2										
Lab #1347	10-06-03	0.1	34.1	14.6	51.2	97.0	2.8	68.5	531	38
Lab #1607	11-07-03	0.3	40.4	16.1	43.2	92.1	0.4	63.0	464	5
BOONE QUARRIES - EAST, COLUMBIA, MO										
Stockpile #1										
Lab #0979	08-11-03	7.3	48.0	8.9	35.8	93.6	4.4	53.1	398	47
Lab #1160	09-08-03	3.8	49.1	9.8	37.3	94.1	4.1	55.5	417	45
Lab #1345	10-06-03	4.5	51.0	9.3	35.2	91.7	3.9	53.5	393	42
Lab #1605	11-07-03	5.4	50.0	9.7	34.9	91.1	4.0	53.2	388	43
BROMLEY QUARRY & ASPHALT INC, ATCHISON, KS										
Stockpile #1										
Lab #1704	11-17-03	1.3	53.5	9.6	35.6	79.8	1.7	54.7	349	19
Lab #1816	12-02-03	1.0	53.7	9.6	35.7	78.9	1.8	54.9	346	20
Lab #1863	12-05-03	1.2	53.0	9.9	35.9	79.8	1.7	55.1	352	19
BURFORDVILLE STONE, LLC, WHITEWATER, MO										
Stockpile #1										
Lab #0923	07-30-03	3.5	49.4	7.9	39.2	79.5	9.3	56.3	358	105
Lab #1144	08-29-03	3.9	44.5	7.3	44.3	68.0	8.2	59.8	325	98
Lab #1282	09-23-03	8.9	51.0	6.5	33.6	70.2	8.2	50.3	282	82
Lab #1519	10-20-03	3.1	55.1	10.3	31.5	67.7	8.1	51.5	279	83
Lab #1745	11-19-03	6.0	64.8	6.2	23.0	87.5	10.2	42.9	300	88
CALCIUM PRODUCTS, INC., GILMORE CITY, IA										

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AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JULY 1 THROUGH DECEMBER 31, 2003

Distributor	Date Sampled	U.S. Sieve Fraction, %				% CCE	% Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
CAPITAL QUARRIES INC-HIGH HILL, HIGH HILL, MO										
CAPITAL QUARRIES, INC-STADIUM WEST, JEFFERSON CITY, MO										
Stockpile #2										
Lab #0942	08-04-03	1.8	39.7	10.2	48.3	87.7	10.1	64.3	451	130
Lab #1208	09-11-03	1.5	40.8	9.6	48.1	88.0	10.7	64.1	451	137
Lab #1608	11-03-03	3.2	41.7	9.1	46.0	89.9	10.8	61.9	445	134
CAPITAL QUARRIES INC-ROLLA Q #4, JEFFERSON CITY, MO										
Stockpile #2										
Lab #0890	07-17-03	0.3	5.3	9.9	84.5	77.1	8.8	91.8	566	162
Lab #0901	07-25-03	0.1	4.1	8.8	87.0	80.8	8.5	93.3	603	159
Lab #0944	08-05-03	0.0	6.2	11.9	81.9	72.2	8.7	90.6	523	158
Lab #1227	09-16-03	0.3	5.2	10.2	84.3	76.8	8.9	91.7	564	163
Lab #1585	10-28-03	2.6	44.7	13.6	39.1	95.2	11.4	58.4	445	133
JANES FARM SALES & SERVICE, QULIN, MO										
CAPITAL QUARRIES INC-CALIFORNIA Q#5, JEFFERSON CITY, MO										
Stockpile #1										
Lab #1058	08-18-03	1.2	49.9	10.9	38.0	85.2	3.2	57.0	389	36
Lab #1265	09-24-03	1.6	45.7	12.6	40.1	82.6	3.5	59.1	390	41
Lab #1514	10-20-03	1.3	47.0	11.3	40.4	84.3	3.4	58.9	397	40
Lab #1736	11-21-03	1.7	47.3	8.2	42.8	77.8	4.1	59.5	371	49
CAPITAL QUARRIES INC-SULLIVAN, BOURBON, MO										
CARROLL COUNTY STONE, INC., REPUBLIC, MO										
Stockpile #1										
Lab #0966	08-08-03	1.1	41.4	10.7	46.8	87.3	10.5	63.6	444	133
Lab #1316	09-30-03	0.3	37.6	12.8	49.3	90.5	11.0	66.4	481	146
Lab #1676	11-12-03	0.4	37.3	12.2	50.1	91.7	11.1	66.7	490	148
Lab #1900	12-12-03	0.5	38.4	12.0	49.1	89.4	10.7	65.9	471	141
CARTHAGE CRUSHED LIMESTONE, CARTHAGE, MO										
Stockpile #1										
Lab #1033	08-11-03	2.0	20.6	7.9	69.5	96.7	0.1	79.4	614	2
Lab #1493	10-23-03	2.5	37.5	10.5	49.5	96.1	0.1	65.2	501	1
CENTRAL STONE COMPANY - HUNTINGTON, HANNIBAL, MO										
Stockpile #1										
Lab #0972	08-08-03	8.4	36.6	9.4	45.6	94.2	0.2	60.4	455	2
Lab #1152	09-03-03	6.2	29.7	9.7	54.4	95.6	0.3	67.6	517	4
Lab #1354	10-03-03	5.3	43.4	12.8	38.5	94.6	0.3	57.0	432	3
Lab #1724	11-17-03	5.8	32.7	10.0	51.5	93.9	0.2	65.7	493	3
Stockpile #2										
Lab #0973	08-08-03	1.0	32.0	12.2	54.8	89.7	0.4	70.1	503	6
Lab #1153	09-03-03	1.5	36.7	13.5	48.3	96.2	0.2	65.6	505	3
Lab #1355	10-03-03	0.5	34.7	16.1	48.7	85.7	0.3	67.0	460	4
Lab #1722	11-17-03	0.4	27.7	15.2	56.7	89.4	0.8	72.7	520	12
Stockpile #3										
Lab #0974	08-08-03	0.5	25.5	10.1	63.9	88.7	0.7	76.3	542	11
Lab #1154	09-03-03	1.2	28.4	12.2	58.2	92.3	1.2	72.6	536	17
Lab #1356	10-03-03	1.5	30.9	11.9	55.7	91.2	0.9	70.6	515	13
Lab #1723	11-17-03	0.5	28.3	15.0	56.2	99.1	2.2	72.3	573	32
CENTRAL STONE COMPANY-ANTONIA, HANNIBAL, MO										
CENTRAL STONE COMPANY - BETHEL, BETHEL, MO										
Stockpile #1										
Lab #0991	08-07-03	7.1	40.0	8.9	44.0	94.2	1.8	59.3	447	21
Lab #1200	09-11-03	5.9	41.1	9.7	43.3	94.1	1.5	59.4	447	18
Lab #1508	10-20-03	5.5	42.7	9.9	41.9	93.9	1.5	58.5	440	18
Lab #1730	11-19-03	6.4	39.8	9.1	44.7	91.7	1.7	60.1	441	20
Stockpile #2										
Lab #0970	08-07-03	12.0*	45.3	8.6	34.1	94.9	1.2	50.6	0	0
Lab #1201	09-11-03	7.7	47.1	9.0	36.2	94.0	1.3	53.4	401	14
Lab #1499	10-20-03	10.9*	43.9	8.4	36.8	94.5	1.0	52.8	0	0
Lab #1731	11-19-03	10.6*	47.0	9.3	33.1	95.1	0.8	50.4	0	0
CENTRAL STONE CO - FORT BELLE - #31, FLORISSANT, MO										
Stockpile #1										
Lab #1068	08-20-03	0.0	0.6	5.5	93.9	83.9	3.5	97.4	653	68
Lab #1237	09-17-03	0.0	0.9	7.2	91.9	84.3	3.4	96.4	650	66
Lab #1543	10-30-03	0.0	0.4	7.0	92.6	83.6	3.8	96.9	648	74
Lab #1765	11-26-03	0.0	0.6	3.5	95.9	85.8	2.2	98.2	674	43

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JULY 1 THROUGH DECEMBER 31, 2003

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
CENTRAL STONE COMPANY - PARIS, PARIS, MO										
Stockpile #1										
Lab #0982	08-04-03	3.1	46.9	13.1	36.9	88.3	0.4	56.5	399	5
Lab #1150	09-02-03	2.4	48.5	12.4	36.7	90.0	0.4	56.3	405	5
Lab #1353	10-02-03	4.3	53.7	11.1	30.9	89.0	0.2	51.0	363	2
Lab #1678	11-10-03	2.9	47.1	11.5	38.5	89.7	0.5	57.2	410	6
CENTRAL STONE COMPANY - CURRYVILLE, CURRYVILLE, MO										
CENTRAL STONE COMPANY - PERRY, HANNIBAL, MO										
Stockpile #1										
Lab #0971	08-08-03	6.1	38.9	10.0	45.0	83.7	1.6	60.7	407	19
Lab #1151	09-03-03	5.1	40.8	9.7	44.4	83.4	1.6	60.4	403	19
CENTRAL STONE COMPANY - EWING, HANNIBAL, MO										
Stockpile #1										
Lab #1351	10-01-03	3.9	37.2	9.3	49.6	82.0	0.7	64.5	423	9
Lab #1683	11-12-03	6.4	37.1	9.6	46.9	82.0	0.7	61.9	406	9
CENTRAL STONE COMPANY-ST. FRANCOIS, HANNIBAL, MO										
CENTRAL STONE COMPANY - TAYLOR, TAYLOR, MO										
Stockpile #1										
Lab #0975	08-08-03	7.5	45.1	11.8	35.6	88.0	0.3	54.0	380	3
Lab #1155	09-03-03	7.9	45.9	11.9	34.3	88.3	0.2	52.9	374	2
Lab #1357	10-03-03	8.4	46.6	10.7	34.3	87.8	0.3	52.4	368	3
Lab #1725	11-17-03	5.8	47.7	12.1	34.4	87.6	0.2	53.6	376	2
CLEVER STONE CO, CLEVER, MO										
Stockpile #1										
Lab #1085	08-20-03	0.5	50.1	13.8	35.6	96.0	0.2	56.4	433	2
Lab #1317	10-02-03	0.1	48.8	15.1	36.0	96.9	0.2	57.3	444	2
Lab #1716	11-21-03	0.0	51.4	14.6	34.0	95.5	0.2	55.6	425	2
COLONIAL LIMESTONE INC-PRINCETON, MILAN, MO										
CONCO QUARRIES, SPRINGFIELD, MO										
CONCO QUARRIES INC Q US 160, WILLARD, MO										
Stockpile #1										
Lab #1036	08-14-03	0.0	12.1	16.1	71.8	99.0	0.2	84.5	669	3
Lab #1455	10-14-03	0.1	11.4	15.8	72.7	97.1	0.2	85.0	661	3
Lab #1856	12-03-03	0.2	12.5	16.6	70.7	98.4	0.2	83.8	660	3
Stockpile #4										
Lab #1037	08-14-03	0.1	10.9	15.6	73.4	98.5	0.2	85.5	674	3
Lab #1456	10-14-03	0.1	10.0	15.1	74.8	97.8	0.2	86.4	676	3
Lab #1857	12-03-03	0.0	12.0	15.0	73.0	98.1	0.1	85.0	667	2
COUNTY LINE QUARRY, WELLSVILLE, MO										
Stockpile #1										
Lab #0983	08-05-03	3.6	47.8	0.0	48.6	89.5	5.2	60.6	434	63
Lab #1198	09-10-03	2.5	47.1	10.2	40.2	93.2	3.7	58.1	433	43
Lab #1397	10-08-03	2.6	46.7	10.4	40.3	89.9	3.9	58.2	419	45
Lab #1601	11-06-03	3.1	49.7	8.8	38.4	93.5	4.7	56.1	420	53
CRAWFORD LIME & MATERIAL CO, CUBA, MO										
Stockpile #1										
Lab #0945	08-06-03	4.3	42.3	9.6	43.8	87.7	10.7	60.1	422	129
Lab #1820	12-01-03	3.1	42.9	9.2	44.8	87.6	10.5	61.0	428	128
CRIDER BROTHERS LIME CO, EMINENCE, MO										
Stockpile #2										
Lab #0921	07-29-03	3.6	45.7	12.9	37.8	97.1	10.9	57.0	443	124
Lab #1119	08-28-03	5.7	48.7	12.4	33.2	96.4	11.2	52.8	407	118
Lab #1371	10-02-03	1.0	44.8	15.9	38.3	103.6	11.6	59.0	489	137
Lab #1619	11-06-03	2.3	43.0	17.9	36.8	104.4	12.1	58.3	487	141
Lab #1754	11-21-03	3.0	46.4	15.6	35.0	105.6	10.8	56.0	473	121
CRIDER BROS LIME CO. INC.-VAN BUREN, EMINENCE, MO										
Stockpile #1										
Lab #1618	11-06-03	4.6	42.1	12.5	40.8	88.7	10.5	58.8	417	124
Lab #1753	11-21-03	4.9	43.2	11.6	40.3	90.3	10.9	58.1	419	127
Lab #1828	12-04-03	4.9	42.3	12.3	40.5	88.9	10.2	58.5	416	119
DOSS & HARPER STONE CO., HOUSTON, MO										
Stockpile #2										
Lab #1136	08-27-03	5.8	40.7	14.2	39.3	94.1	11.3	58.0	437	131
Lab #1623	11-04-03	24.7*	39.1	10.2	26.0	97.2	11.7	41.9	0	0

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Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
DOSS & HARPER STONE CO, WEST PLAINS, MO										
Stockpile #1										
Lab #1137	08-27-03	0.2	47.3	10.0	42.5	82.2	9.7	60.3	397	117
Lab #1624	11-04-03	0.1	38.7	8.1	53.1	79.3	9.6	67.6	429	130
Lab #1786	11-24-03	0.2	48.1	10.1	41.6	67.9	8.2	59.7	324	98
EVERETT QUARRIES #1-LATHROP, PLATTSBURG, MO										
Stockpile #2										
Lab #1023	08-13-03	0.1	51.3	11.7	36.9	88.0	0.7	56.7	399	8
Lab #1318	09-30-03	0.0	47.1	12.9	40.0	87.7	0.7	59.5	418	8
Lab #1510	10-21-03	0.3	48.1	12.7	38.9	87.9	0.6	58.5	412	7
Lab #1818	12-03-03	0.0	48.9	13.8	37.3	86.8	0.6	57.8	401	7
EVERETT QUARRIES #6-KING, PLATTSBURG, MO										
Stockpile #1										
Lab #1310	09-29-03	4.1	48.2	8.4	39.3	88.3	2.0	56.4	398	23
Lab #1390	10-07-03	2.5	50.0	10.1	37.4	88.8	1.4	56.0	398	16
Lab #1578	10-30-03	0.1	49.4	12.6	37.9	89.7	0.6	57.8	415	7
Lab #1738	11-19-03	0.1	48.0	13.0	38.9	87.1	0.6	58.7	409	7
Lab #1878	12-08-03	0.5	48.2	11.8	39.5	88.8	0.6	58.6	417	7
Stockpile #2										
Lab #1311	09-29-03	7.3	49.3	9.5	33.9	88.5	2.0	51.9	368	21
Lab #1391	10-07-03	6.9	51.8	9.7	31.6	88.3	2.3	50.4	356	23
Lab #1579	10-30-03	6.0	50.5	11.0	32.5	89.0	2.2	51.7	368	23
Lab #1740	11-19-03	5.3	48.7	10.7	35.3	88.1	1.9	53.9	380	20
Lab #1879	12-08-03	8.1	48.6	8.8	34.5	88.7	1.5	51.9	368	16
EVERETT QUARRIES #53-CAMERON, PLATTSBURG, MO										
EVERETT QUARRIES #54-GOWER, PLATTSBURG, MO										
Stockpile #3										
Lab #1024	08-15-03	5.9	52.7	8.6	32.8	82.6	1.0	51.1	338	10
Lab #1300	09-24-03	3.3	51.5	8.6	36.6	82.4	0.9	54.6	360	10
Lab #1548	10-28-03	4.0	50.7	8.9	36.4	81.0	1.1	54.4	353	12
Lab #1819	12-02-03	6.5	53.1	9.9	30.5	83.2	0.8	49.7	331	8
EVERETT QUARRIES #59-STANBERRY, PLATTSBURG, MO										
Stockpile #1										
Lab #1022	08-12-03	4.4	46.5	8.9	40.2	81.9	1.4	57.2	375	16
Lab #1302	09-25-03	5.4	47.0	9.3	38.3	78.1	1.7	55.6	348	19
Lab #1546	10-28-03	5.3	46.8	9.2	38.7	80.5	1.6	55.9	360	18
FALL VALLEY STONE, INC., MT VERNON, MO										
Stockpile #1										
Lab #0956	08-04-03	0.1	35.6	12.4	51.9	99.2	12.0	68.2	542	164
Lab #1314	09-29-03	0.1	38.0	13.8	48.1	97.3	12.0	65.9	513	158
Lab #1550	10-28-03	0.2	43.4	12.9	43.5	102.5	12.6	62.1	509	156
FARMERS LITTER & LIME, SIKESTON, MO										
Stockpile #2										
Lab #1147	09-04-03	0.1	0.9	0.7	98.3	77.7	0.8	98.9	615	16
Lab #1692	11-10-03	0.4	1.4	0.8	97.4	77.5	0.8	98.2	609	16
Lab #1835	12-02-03	0.0	1.7	1.2	97.1	80.8	1.0	98.2	635	20
Stockpile #3										
Lab #1193	09-11-03	0.5	0.9	0.5	98.1	76.1	0.8	98.6	600	16
FISCHER QUARRIES LLC, HUGHESVILLE, MO										
Stockpile #2										
Lab #0996	08-08-03	9.1	46.5	9.4	35.0	98.1	1.2	52.3	410	13
Lab #1165	09-05-03	6.1	44.8	11.2	37.9	98.6	1.1	55.8	440	12
Lab #1383	10-02-03	7.0	47.5	10.4	35.1	97.1	1.2	53.2	413	13
Lab #1526	10-27-03	8.4	46.7	9.8	35.1	97.7	1.1	52.7	412	12
Lab #1663	11-14-03	11.0*	45.4	10.3	33.3	98.8	1.0	50.8	0	0
FULLERTON STONE COMPANY INC, GRANBY, MO										
Stockpile #1										
Lab #0960	08-05-03	7.3	56.5	5.8	30.4	86.3	0.2	48.0	331	2
Lab #1273	09-23-03	2.2	47.5	12.5	37.8	85.7	0.1	57.2	392	1
Lab #1554	10-29-03	4.6	51.7	12.3	31.4	90.6	0.1	51.7	375	1
Lab #1855	12-02-03	3.5	53.5	11.7	31.3	84.5	0.1	51.7	349	1
GABEL STONE COMPANY INC., WILLOW SPRINGS, MO										
GLASGOW QUARRIES INC, GLASGOW, MO										

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TABLE 1

AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JULY 1 THROUGH DECEMBER 31, 2003

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
GLASGOW QUARRIES-GILLIAM, GILLIAM, MO										
Stockpile #1										
Lab #1042	08-13-03	3.4	48.8	8.2	39.6	87.8	5.9	56.7	398	67
Lab #1177	09-08-03	2.9	49.1	9.2	38.8	89.9	6.3	56.6	407	71
Lab #1392	10-07-03	3.2	47.0	8.9	40.9	88.5	6.3	58.0	411	73
Lab #1545	10-31-03	3.7	47.3	7.8	41.2	88.0	6.1	57.7	406	70
Stockpile #2										
Lab #1180	09-08-03	3.8	58.8	8.8	28.6	82.5	3.3	48.6	321	32
Lab #1393	10-07-03	2.5	60.3	8.9	28.3	82.4	3.9	48.7	321	38
Lab #1544	10-31-03	2.7	58.1	9.7	29.5	82.3	4.1	49.8	328	41
GLASGOW QUARRIES - MARCELINE, MARCELINE, MO										
Stockpile #4										
Lab #1222	09-11-03	3.1	48.8	7.7	40.4	89.0	5.8	57.2	407	66
Lab #1438	10-13-03	3.6	47.8	7.9	40.7	88.1	5.9	57.4	404	68
Lab #1649	11-10-03	3.7	47.2	7.8	41.3	88.7	5.7	57.8	410	66
Lab #0003	12-30-03	3.2	48.9	7.2	40.7	87.7	6.3	57.2	402	72
HARVEY PRODUCTS INC, BLUE MOUNDS, WI										
HIGGINS - MEEKER QUARRIES LLC, DEEPWATER, MO										
Stockpile #2										
Lab #1475	10-17-03	5.7	56.0	9.3	29.0	80.8	3.0	48.6	314	29
Lab #1806	11-26-03	3.1	54.2	10.3	32.4	76.5	2.1	52.1	319	22
HILTY QUARRIES, INC. - QUARLES, CLINTON, MO										
Stockpile #2										
Lab #1420	10-07-03	19.5*	48.9	7.6	24.0	79.3	0.6	40.8	0	0
Lab #1629	11-03-03	19.5*	48.2	7.3	25.0	77.2	0.4	41.4	0	0
Stockpile #3										
Lab #1851	12-04-03	0.2	45.4	12.1	42.3	95.6	0.3	60.9	466	4
HILTY QUARRIES, INC. - MONTROSE, CLINTON, MO										
Stockpile #3										
Lab #0930	08-04-03	0.2	43.2	12.8	43.8	95.2	0.4	62.3	474	5
Lab #1246	09-23-03	1.9	50.5	10.6	37.0	95.8	0.2	56.0	429	2
Lab #1561	10-30-03	0.7	46.0	12.5	40.8	96.5	1.0	59.8	462	12
Lab #1843	12-01-03	0.2	38.0	16.1	45.7	95.2	0.3	64.9	494	4
HILTY QUARRIES, INC. - MT. ZION, CLINTON, MO										
Stockpile #1										
Lab #1293	09-26-01	0.5	39.7	14.8	45.0	85.6	0.1	63.8	437	1
Lab #1025	08-14-03	0.2	37.5	15.7	46.6	87.0	0.1	65.4	455	1
Lab #1564	10-30-03	0.4	38.4	15.5	45.7	85.7	0.1	64.6	443	1
Lab #1803	11-26-03	0.3	45.1	16.3	38.3	91.1	0.1	59.4	433	1
Stockpile #2										
Lab #1026	08-14-03	0.5	48.5	14.9	36.1	89.1	0.1	57.2	407	1
Lab #1294	09-26-03	0.1	46.0	15.7	38.2	90.2	0.1	59.1	427	1
Lab #1565	10-30-03	0.3	42.3	12.3	45.1	77.1	1.1	63.1	389	14
Lab #1804	11-26-03	0.1	39.5	15.7	44.7	87.0	0.2	64.0	445	3
Stockpile #3										
Lab #1027	08-14-03	0.5	47.1	14.2	38.2	88.7	0.1	58.5	415	1
Lab #1295	09-26-03	0.3	43.6	16.3	39.8	91.5	0.1	60.5	443	1
Lab #1566	10-30-03	0.4	46.2	14.8	38.6	89.7	0.1	59.0	424	1
Lab #1805	11-26-03	0.6	42.9	19.1	37.4	85.7	0.1	59.6	409	1
HILTY QUARRIES, INC- SOUTH-DELL JCT, CLINTON, MO										
Stockpile #1										
Lab #1030	08-14-03	0.5	52.5	12.2	34.8	96.1	0.8	55.2	425	9
Lab #1298	09-26-03	1.0	50.7	12.5	35.8	94.3	0.5	56.0	422	6
Lab #1569	10-30-03	0.2	51.7	12.2	35.9	89.9	0.8	56.1	404	9
Lab #1799	11-26-03	0.4	52.4	13.0	34.2	96.8	0.6	55.1	427	7
Stockpile #2										
Lab #1800	11-26-03	0.5	47.6	8.5	43.4	75.2	5.0	60.4	363	60
HILTY QUARRIES, INC - TIGHTWAD, CLINTON, MO										
Stockpile #1										
Lab #1028	08-14-03	0.3	41.8	10.7	47.2	92.3	0.2	64.1	473	3
Lab #1296	09-26-03	0.1	40.0	12.7	47.2	93.6	0.1	64.8	485	1
Lab #1567	10-30-03	0.1	45.3	12.8	41.8	96.3	0.6	60.8	468	7
Lab #1801	11-26-03	0.4	44.8	13.4	41.4	95.4	0.3	60.6	463	4
Stockpile #2										
Lab #1029	08-14-03	2.2	57.0	9.5	31.3	97.5	0.2	51.3	400	2

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JULY 1 THROUGH DECEMBER 31, 2003

Distributor	Date Sampled	U.S. Sieve Fraction, %				% CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
HILTY QUARRIES, INC - TIGHTWAD, CLINTON, MO (CONTINUED)										
Stockpile #2										
Lab #1297	09-26-03	2.9	61.6	8.9	26.6	95.9	0.1	47.3	363	1
Lab #1568	10-30-03	4.2	62.0	7.4	26.4	98.1	2.0	46.3	364	19
Lab #1802	11-26-03	3.8	65.1	8.8	22.3	96.0	0.6	43.9	337	5
HILTY QUARRIES, INC. - URICH, CLINTON, MO										
Stockpile #2										
Lab #0928	08-04-03	0.1	41.9	11.8	46.2	78.4	1.0	63.8	400	13
Lab #1244	09-23-03	0.0	38.9	17.4	43.7	77.8	1.1	63.9	397	14
Lab #1562	10-30-03	0.3	42.3	12.3	45.1	77.1	1.1	63.1	389	14
Stockpile #4										
Lab #0929	08-04-03	1.8	44.1	11.5	42.6	93.8	0.3	60.5	454	4
Lab #1245	09-23-03	0.4	44.6	11.7	43.3	94.4	0.2	61.5	464	2
Lab #1563	10-30-03	1.5	45.2	11.7	41.6	94.0	0.3	59.9	451	4
Lab #1844	12-01-03	0.5	45.3	12.0	42.2	92.8	0.3	60.7	451	4
HILTY QUARRIES INC.-WARRENSBURG, CLINTON, MO										
Stockpile #4										
Lab #0939	08-06-03	4.6	51.6	9.5	34.3	74.5	1.2	52.9	315	13
Lab #1263	09-23-03	3.8	51.0	10.2	35.0	73.2	1.3	53.9	315	14
Lab #1464	10-13-03	2.8	51.4	11.7	34.1	73.5	1.3	54.0	317	14
Lab #1600	11-06-03	3.6	49.1	11.9	35.4	73.8	1.4	54.8	324	15
HUNT MIDWEST MINING-BLUE MOUND, DAWN, MO										
Stockpile #1										
Lab #1223	09-12-03	0.7	51.6	11.3	36.4	81.0	0.4	56.1	363	4
Lab #1387	10-06-03	0.7	51.5	11.8	36.0	80.6	0.3	56.0	361	3
Lab #1642	11-06-03	0.7	50.8	11.4	37.1	82.4	0.3	56.6	373	3
Lab #1881	12-09-03	0.4	50.6	11.4	37.6	81.0	0.3	57.1	370	3
Stockpile #2										
Lab #1224	09-12-03	0.4	50.3	11.4	37.9	91.1	0.8	57.3	418	9
Lab #1388	10-06-03	0.4	46.8	11.5	41.3	87.5	1.1	59.9	419	13
Lab #1641	11-06-03	0.5	49.5	11.8	38.2	89.3	1.0	57.7	412	12
Lab #1880	12-09-03	0.5	48.8	12.4	38.3	88.1	1.3	57.9	408	15
HUNT MIDWEST MINING, INC.-TRENTON, EDINBURG, MO										
HUNT MIDWEST MINING - HWY 10 QUARRY, RAYVILLE, MO										
Stockpile #1										
Lab #0935	08-04-03	2.5	51.6	10.0	35.9	79.8	1.3	54.8	350	14
Lab #1261	09-22-03	3.7	55.4	10.4	30.5	89.1	0.5	50.6	361	5
Lab #1465	10-14-03	4.4	54.2	12.0	29.4	86.7	0.6	50.2	348	6
Lab #1703	11-18-03	2.7	58.5	10.1	28.7	88.6	0.4	49.4	350	4
HUNT MIDWEST QUARRY - STET QUARRY, RICHMOND, MO										
Stockpile #1										
Lab #1577	10-30-03	1.9	56.6	9.2	32.3	85.3	0.4	52.0	355	4
Lab #1739	11-20-03	1.9	56.9	10.1	31.1	87.2	0.8	51.4	358	8
Lab #1883	12-09-03	1.6	58.6	9.7	30.1	85.6	0.5	50.6	346	5
Stockpile #2										
Lab #1260	09-25-03	1.4	55.0	9.1	34.5	85.0	0.5	53.7	365	5
Lab #1389	10-07-03	1.4	54.3	10.5	33.8	85.4	0.5	53.7	367	5
Lab #1576	10-30-03	2.0	54.2	10.5	33.3	90.1	0.9	53.2	383	10
Lab #1741	11-20-03	4.9	51.9	9.6	33.6	87.8	0.8	52.3	368	8
Lab #1882	12-09-03	1.5	55.4	10.1	33.0	88.3	0.9	52.9	374	10
HUTCHENS CONSTRUCTION-PURDY, CASSVILLE, MO										
Stockpile #2										
Lab #1041	08-15-03	0.4	47.0	14.1	38.5	82.8	0.1	58.7	389	1
Lab #1278	09-25-03	0.5	46.0	13.6	39.9	85.6	0.3	59.6	408	4
Lab #1675	11-11-03	0.4	43.9	13.5	42.2	80.4	0.2	61.3	394	2
HUTCHENS CONSTRUCTION-EAGLE ROCK, CASSVILLE, MO										
Stockpile #2										
Lab #0961	08-06-03	2.1	41.4	9.5	47.0	87.4	10.6	63.1	441	134
Lab #1212	09-11-03	1.6	42.5	9.1	46.8	88.9	10.7	62.9	447	135
Lab #1555	10-31-03	1.0	39.2	9.9	49.9	89.2	11.1	65.6	468	146
Lab #1861	12-04-03	1.6	41.9	9.4	47.1	88.4	10.7	63.2	447	135
HUTCHENS CONSTRUCTION-WASHBURN, CASSVILLE, MO										
IDEKER INC. - NEW POINT QUARRY, ST JOSEPH, MO										
Stockpile #1										
Lab #0955	08-08-03	3.1	43.9	11.9	41.1	85.0	0.5	59.2	403	6

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		+8	-8+40	-40+60	-60				ENM	EMg
IDEKER INC. - NEW POINT QUARRY, ST JOSEPH, MO (CONTINUED)										
Stockpile #1										
Lab #1216	09-09-03	3.0	46.7	11.5	38.8	91.2	0.8	57.4	419	9
Lab #1418	10-10-03	4.7	49.9	10.3	35.1	88.6	0.6	53.8	381	6
Lab #1669	11-11-03	4.3	50.1	10.2	35.4	87.8	0.6	54.0	380	6
Lab #1814	12-01-03	4.1	49.6	10.7	35.6	89.0	0.6	54.4	387	7
IDEKER INC. - AMAZONIA, ST JOSEPH, MO										
Stockpile #1										
Lab #1018	08-11-03	3.2	46.5	12.3	38.0	86.9	1.3	57.0	396	15
Lab #1175	09-04-03	2.6	48.2	12.7	36.5	89.3	1.0	56.2	401	11
Lab #1476	10-13-03	0.1	48.9	11.7	39.3	88.5	0.7	58.5	414	8
Lab #1670	11-12-03	2.6	42.4	11.4	43.6	72.2	2.7	61.0	353	33
JENKINS QUARRY, CASSVILLE, MO										
Stockpile #1										
Lab #0964	08-06-03	5.1	47.7	6.4	40.8	89.9	10.7	56.6	407	121
Lab #1275	09-25-03	4.6	47.6	7.4	40.4	87.4	9.9	56.7	397	112
Lab #1673	11-11-03	5.9	48.2	7.7	38.2	81.8	9.7	54.9	359	106
JIMMY SANDERS, INC, LEACHVILLE, AR										
LEO JOURNAGAN CONST CO-GAINESVILLE, SPRINGFIELD, MO										
Stockpile #1										
Lab #1133	08-26-03	3.7	44.8	8.0	43.5	85.5	10.1	59.5	407	120
LEO JOURNAGAN CONST CO-HOLLISTER SO, SPRINGFIELD, MO										
Stockpile #1										
Lab #1089	08-22-03	1.4	52.7	11.0	34.9	92.5	0.6	54.7	405	7
Lab #1270	09-22-03	1.1	49.8	11.4	37.7	94.6	0.5	57.0	431	6
Lab #1897	12-08-03	0.9	49.1	12.4	37.6	94.0	0.5	57.3	431	6
LEO JOURNAGAN CONST CO INC-OZARK, SPRINGFIELD, MO										
LEO JOURNAGAN CONST CO INC-AVA, SPRINGFIELD, MO										
LEO JOURNAGAN CONST - REED SPRING, SPRINGFIELD, MO										
LEO JOURNAGAN CONST. - SHELL KNOB, SHELL KNOB, MO										
Stockpile #1										
Lab #0962	08-06-03	4.4	40.0	7.7	47.9	91.7	11.2	62.5	459	140
Lab #1213	09-11-03	3.3	40.9	7.8	48.0	92.4	11.0	62.9	465	138
Lab #1556	10-31-03	3.5	42.9	7.3	46.3	91.8	11.5	61.4	451	141
Lab #1862	12-04-03	3.6	40.5	7.8	48.1	91.5	11.0	62.9	460	138
JOPLIN STONE CO Q DUENWEG, JOPLIN, MO										
Stockpile #2										
Lab #0965	08-07-03	0.3	20.1	19.8	59.8	96.6	0.2	76.7	539	3
Lab #1209	09-08-03	0.2	22.1	22.0	55.7	94.8	0.1	74.4	564	1
Lab #1454	10-13-03	0.4	20.8	21.6	57.2	96.3	0.2	75.4	581	3
Lab #1677	11-14-03	0.4	21.0	21.0	57.6	96.2	0.2	75.5	581	3
Lab #1898	12-09-03	0.3	21.0	21.2	57.5	95.3	0.1	75.5	575	2
K & D CRUSHING, INC., MINERAL POINT, MO										
Stockpile #1										
Lab #0867	07-01-03	0.5	39.9	15.4	44.2	95.0	11.0	63.4	482	140
Lab #0889	07-16-03	4.8	44.8	13.7	36.7	93.1	10.6	56.1	418	119
Lab #1017	08-14-03	2.6	47.4	12.9	37.1	85.0	9.7	56.7	385	110
Lab #1341	09-30-03	6.2	45.8	11.6	36.4	88.9	10.1	54.8	390	111
Stockpile #2										
Lab #0868	07-01-03	3.0	34.1	16.3	46.6	96.7	11.4	64.9	502	148
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Stockpile #1										
Lab #0989	08-07-03	3.9	43.3	8.1	44.7	92.2	2.2	60.4	445	27
Lab #1202	09-11-03	2.2	41.0	9.3	47.5	91.3	2.3	63.3	463	29
Lab #1505	10-20-03	1.9	41.2	11.4	45.5	92.5	1.4	62.6	464	18
Lab #1727	11-19-03	1.7	36.7	9.5	52.1	89.8	1.9	67.0	481	25
Stockpile #3										
Lab #0988	08-07-03	0.2	1.0	0.5	98.3	98.5	0.9	98.9	779	18
Lab #1203	09-11-03	0.3	0.8	0.4	98.5	98.3	0.7	98.9	778	14
Lab #1506	10-20-03	0.2	1.3	0.7	97.8	98.3	0.6	98.5	775	12
Lab #1728	11-19-03	0.4	2.4	1.1	96.1	92.1	0.6	97.4	717	12
Stockpile #4										
Lab #0990	08-07-03	1.6	16.2	4.0	78.2	91.7	1.2	84.7	621	20
Lab #1204	09-11-03	1.4	17.4	4.5	76.7	91.2	1.3	83.8	611	22
Lab #1507	10-20-03	1.2	16.0	4.2	78.6	89.9	1.3	85.1	612	22

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		+8	-8+40	-40+60	-60				ENM	EMg
KELLY LIMESTONE LLC, KIRKSVILLE, MO (CONTINUED)										
Stockpile #4										
Lab #1729	11-19-03	1.6	16.1	4.2	78.1	90.6	1.1	84.6	614	19
KELLEY QUARRY, CROCKER, MO										
Stockpile #1										
Lab #1010	08-12-03	3.7	42.3	11.0	43.0	91.3	10.9	60.2	440	131
Lab #1589	10-29-03	5.4	46.8	11.5	36.3	86.4	10.3	54.9	379	113
Stockpile #2										
Lab #1305	09-23-03	3.9	43.4	11.4	41.3	89.9	10.8	59.0	424	127
KERFORD LIMESTONE CO, WEEPING WATER, NE										
Stockpile #1										
Lab #1076	08-20-03	0.2	0.4	0.1	99.3	91.1	0.5	99.5	725	10
Lab #1870	12-04-03	0.0	0.4	0.3	99.3	88.2	0.6	99.6	703	12
KNOX COUNTY STONE CO, EDINA, MO										
Stockpile #1										
Lab #1130	08-26-03	5.9	45.2	9.4	39.5	92.4	3.2	56.4	417	36
Lab #1348	09-29-03	6.6	47.6	10.8	35.0	92.9	0.9	53.4	397	10
Lab #1539	10-27-03	2.5	44.0	12.2	41.3	88.9	2.4	59.6	424	29
Lab #1762	11-24-03	9.6	43.0	7.7	39.7	92.5	3.6	55.1	408	40
L & W QUARRIES INC., KAHOKA, MO										
Stockpile #1										
Lab #1131	08-27-03	4.9	46.7	8.7	39.7	87.0	1.6	56.6	394	18
Lab #1349	09-30-03	5.1	40.1	13.9	40.9	88.5	0.8	59.3	420	9
Lab #1540	10-28-03	4.9	45.9	9.6	39.6	87.5	1.3	56.8	398	15
Lab #1763	11-25-03	4.8	44.9	10.2	40.1	89.7	0.7	57.4	412	8
Stockpile #2										
Lab #1132	08-27-03	7.8	47.5	10.3	34.4	92.4	0.2	52.5	388	2
Lab #1350	09-30-03	8.7	47.8	10.4	33.1	92.7	0.3	51.3	380	3
Lab #1541	10-28-03	7.2	47.2	10.4	35.2	91.9	0.2	53.2	391	2
Lab #1764	11-25-03	9.8	44.2	9.6	36.4	94.0	0.2	53.2	400	2
LAFARGE QUARRY, SEDALIA, MO										
Stockpile #1										
Lab #0993	08-08-03	0.5	48.5	8.3	42.7	86.0	5.2	59.8	411	62
Lab #1162	09-05-03	0.5	45.8	8.9	44.8	83.5	3.0	61.6	411	37
Lab #1380	10-02-03	0.7	49.9	9.7	39.7	84.8	4.9	58.0	393	57
Lab #1523	10-27-03	2.6	51.8	9.8	35.8	86.4	3.8	54.6	378	42
Stockpile #3										
Lab #1660	11-14-03	6.5	49.6	7.6	36.3	84.3	3.9	53.3	359	42
LAFARGE CORPORATION, SEDALIA, MO										
LEAD BELT MATERIALS CO INC, FLAT RIVER, MO										
Stockpile #1										
Lab #1125	08-28-03	0.1	17.7	18.1	64.1	87.6	10.7	79.4	556	170
Stockpile #2										
Lab #1497	10-21-03	0.1	28.5	13.7	57.7	89.7	10.7	73.0	524	156
Lab #1771	11-25-03	0.0	24.0	14.1	61.9	89.1	10.4	76.4	544	159
LILE QUARRY INC., STRAFFORD, MO										
Stockpile #1										
Lab #1210	09-10-03	0.8	56.2	6.1	36.9	89.9	10.8	54.6	393	118
Lab #1713	11-18-03	2.5	58.7	5.4	33.4	87.9	10.3	51.3	361	106
LIMPUS QUARRIES, INC. (BATES CITY), BATES CITY, MO										
Stockpile #1										
Lab #0992	08-07-03	3.6	47.8	12.3	36.3	91.9	0.6	55.6	409	7
Lab #1140	08-26-03	4.4	53.3	9.7	32.6	91.6	0.6	51.7	379	6
Lab #1290	09-29-03	7.8	53.0	7.8	31.4	87.9	0.5	49.3	347	5
LIMPUS QUARRIES, INC. (GARDEN CITY), HARRISONVILLE, MO										
LIMPUS QUARRIES, INC. (GALLATIN), HARRISONVILLE, MO										
Stockpile #1										
Lab #1909	12-23-03	6.2	46.8	7.3	39.7	74.8	1.6	55.8	334	18
Lab #0002	12-29-03	5.5	48.1	8.6	37.8	66.8	1.7	55.0	294	19
Stockpile #2										
Lab #1312	09-29-03	4.9	47.8	9.0	38.3	66.5	1.7	55.7	296	19
Lab #1402	10-09-03	5.5	45.8	9.5	39.2	66.2	1.5	56.4	298	17
Lab #1639	11-05-03	5.9	49.5	8.3	36.3	64.3*	1.7	53.7	0	0
Lab #1776	11-24-03	3.2	43.9	8.7	44.2	65.0	1.6	60.4	314	19
Lab #1876	12-08-03	4.3	43.6	9.6	42.5	64.6*	1.8	59.2	0	0

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AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JULY 1 THROUGH DECEMBER 31, 2003

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
LIMPUS QUARRIES, INC. (GALLATIN), HARRISONVILLE, MO (CONTINUED)										
Stockpile #2										
Lab #1908	12-23-03	5.7	44.6	6.5	43.2	61.2*	1.7	58.3	0	0
Lab #0001	12-29-03	4.7	43.0	7.3	45.0	65.1	1.5	60.1	313	18
LIMPUS QUARRIES, INC. (HARRISONVILLE, HARRISONVILLE, MO)										
Stockpile #1										
Lab #1098	08-25-03	6.4	48.3	9.3	36.0	87.6	1.2	53.7	376	13
Lab #1291	09-25-03	7.9	52.2	8.5	31.4	88.5	0.5	49.6	351	5
Lab #1560	10-29-03	6.1	51.7	8.4	33.8	87.5	1.0	51.8	362	10
Lab #1850	12-03-03	6.9	49.2	7.6	36.3	87.3	1.0	53.2	371	11
LIMPUS QUARRIES, INC. (HOLDEN), HARRISONVILLE, MO										
Stockpile #2										
Lab #0938	08-06-03	4.6	47.9	9.1	38.4	73.8	2.4	55.8	330	27
Lab #1262	09-23-03	5.9	48.7	8.3	37.1	75.4	2.6	54.3	327	28
Lab #1599	11-06-03	5.2	47.7	9.6	37.5	72.2	2.5	55.2	319	28
LIMPUS QUARRIES, INC.-SUGAR CREEK, HARRISONVILLE, MO										
Stockpile #1										
Lab #1005	08-11-03	7.0	53.9	8.0	31.1	87.9	0.7	49.4	347	7
Lab #1194	09-11-03	7.9	53.3	8.9	29.9	86.4	0.7	48.6	336	7
Lab #1467	10-16-03	6.2	52.5	11.3	30.0	87.6	0.6	49.9	350	6
Lab #1659	11-13-03	4.5	52.7	9.3	33.5	87.9	0.3	52.3	367	3
MAGRUDER LIMESTONE CO-ASHLEY, BOWLING GREEN, MO										
Stockpile #1										
Lab #1061	08-12-03	0.0	48.9	8.8	42.3	89.6	1.7	59.8	429	20
Lab #1240	09-18-03	0.1	47.3	9.6	43.0	91.3	1.8	60.6	443	22
Lab #1503	10-17-03	0.3	48.2	11.1	40.4	92.6	1.2	59.1	438	14
Lab #1717	11-14-03	0.2	49.6	9.5	40.7	90.9	1.6	58.8	428	19
MAGRUDER LIMESTONE CO, INC.-BOWLING, BOWLING GREEN, MO										
Stockpile #1										
Lab #1062	08-12-03	0.3	52.5	10.6	36.6	81.3	0.7	56.1	365	8
Lab #1241	09-18-03	0.1	47.8	10.7	41.4	94.4	1.4	59.8	451	17
Lab #1460	10-15-03	0.2	51.0	9.9	38.9	93.1	1.7	57.6	429	20
Lab #1682	11-11-03	0.1	45.1	12.2	42.6	92.8	1.1	61.2	454	13
MAGRUDER LIMESTONE CO-FRANKFORD, BOWLING GREEN, MO										
Stockpile #1										
Lab #1059	08-12-03	3.8	45.1	12.3	38.8	98.2	1.3	57.5	451	15
Lab #1238	09-18-03	3.6	41.8	14.0	40.6	97.7	1.1	59.5	465	13
Lab #1501	10-16-03	3.9	45.3	10.5	40.3	97.5	1.2	57.9	452	14
Lab #1680	11-11-03	0.1	39.9	12.3	47.7	98.3	1.7	65.1	512	22
MAGRUDER LIMESTONE - SILEX QUARRY, TROY, MO										
Stockpile #1										
Lab #0984	08-06-03	5.2	45.5	8.6	40.7	92.4	3.0	57.2	423	34
Lab #1195	09-09-03	5.0	46.3	8.0	40.7	97.2	3.8	57.1	444	43
Lab #1461	10-15-03	2.9	45.5	8.7	42.9	91.6	3.0	59.5	436	36
Lab #1718	11-14-03	6.6	47.4	7.8	38.2	87.4	2.9	54.7	383	32
Stockpile #2										
Lab #1462	10-15-03	3.5	48.5	8.8	39.2	94.1	3.1	56.6	426	35
Lab #1719	11-14-03	2.9	45.2	9.4	42.5	89.0	2.1	59.4	423	25
MAGRUDER LIMESTONE CO Q TROY, TROY, MO										
Stockpile #1										
Lab #0985	08-06-03	2.6	51.3	9.8	36.3	87.2	3.4	55.0	384	37
Lab #1196	09-09-03	1.1	54.4	10.2	34.3	86.6	3.2	54.0	374	35
Lab #1463	10-15-03	2.7	53.7	9.9	33.7	85.6	3.1	53.1	363	33
Lab #1720	11-14-03	1.4	54.3	11.7	32.6	85.3	2.8	53.2	363	30
Stockpile #2										
Lab #0986	08-06-03	6.3	46.8	8.6	38.3	94.1	2.9	55.2	415	32
Lab #1197	09-09-03	2.6	43.8	10.4	43.2	97.2	2.1	60.4	470	25
Lab #1500	10-15-03	3.0	45.4	9.8	41.8	93.8	2.4	59.0	443	28
Lab #1721	11-14-03	4.9	44.7	9.8	40.6	93.8	2.1	57.7	433	24
MANSFIELD LIME & STONE, MANSFIELD, MO										
Stockpile #2										
Lab #1274	09-24-03	0.1	42.8	9.1	48.0	85.4	10.1	64.2	438	130
Lab #1625	11-06-03	0.0	48.5	9.2	42.3	81.2	9.8	59.9	389	117
MARTIN MARIETTA AGGREGATES-JEFFRIES, DAVIS CITY, IA										

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Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
MARTIN MARIETTA MATERIALS-WATTERSON, MT AYR, IA										
Stockpile #1										
Lab #0950	08-04-03	0.6	33.5	11.2	54.7	72.8	1.2	69.8	406	17
Lab #1172	09-03-03	4.5	37.1	11.6	46.8	79.0	1.7	63.0	398	21
MARTIN MARIETTA AGG - APPLETON, PERRYVILLE, MO										
Stockpile #1										
Lab #0882	07-07-03	0.3	50.9	15.0	33.8	98.7	3.5	55.5	438	39
Lab #0967	08-06-03	0.8	60.1	12.6	26.5	93.6	1.0	49.1	368	10
Lab #1145	09-03-03	1.2	59.9	11.5	27.4	95.1	1.1	49.3	375	11
Lab #1427	10-07-03	1.6	52.6	13.9	31.9	94.3	1.1	53.4	403	12
Lab #1696	11-12-03	0.6	62.1	11.0	26.3	89.0	1.1	48.4	345	11
MARTIN MARIETTA AGGREGATE-FREDONIA, FREDONIA, KY										
MARTIN MARIETTA-GREENWOOD, GREENWOOD, MO										
MARTIN MARIETTA MATERIALS-PECULIAR, PECULIAR, MO										
Stockpile #1										
Lab #1097	08-25-03	3.9	46.4	10.1	39.6	92.1	0.9	57.3	422	10
Lab #1292	09-25-03	5.3	54.9	8.7	31.1	91.6	0.5	50.0	367	5
Lab #1559	10-29-03	3.5	48.9	10.4	37.2	87.4	0.8	55.7	389	9
Lab #1849	12-03-03	9.8	50.4	9.0	30.8	91.1	0.7	48.8	356	7
MARTIN MARIETTA AGG-PERRYVILLE, PERRYVILLE, MO										
Stockpile #1										
Lab #1129	08-27-03	0.4	8.8	11.2	79.6	94.8	1.9	88.5	671	34
Lab #1498	10-22-03	0.3	11.2	8.0	80.5	94.9	1.8	88.1	669	32
Lab #1889	12-11-03	0.1	10.3	9.1	80.5	95.0	1.6	88.5	673	28
MARTIN MARIETTA AGGREGATES INC, WEEPING WATER, NE										
Stockpile #1										
Lab #1077	08-20-03	2.7	51.7	10.1	35.5	90.8	0.8	54.5	396	9
Lab #1871	12-04-03	3.0	49.6	9.4	38.0	87.0	0.6	56.0	390	7
MERTENS CONST CO-AUXVASSE, KINGDOM CITY, MO										
Stockpile #1										
Lab #0976	08-11-03	10.6*	50.2	6.8	32.4	85.1	4.3	49.0	0	0
Lab #1156	09-08-03	8.8	49.0	8.8	33.4	94.0	2.6	50.9	383	26
Lab #1358	10-06-03	11.4*	50.4	8.6	29.6	92.5	3.3	47.4	0	0
Stockpile #3										
Lab #0977	08-11-03	5.9	45.2	9.7	39.2	91.0	1.9	56.3	410	21
Lab #1157	09-08-03	6.7	48.8	9.1	35.4	92.3	1.9	53.1	392	20
Lab #1344	10-06-03	4.8	48.1	9.9	37.2	93.3	2.4	55.2	412	26
Lab #1602	11-07-03	5.8	46.8	11.4	36.0	85.3	1.9	54.5	372	21
MERTENS CONST CO-Q-REFORM, KINGDOM CITY, MO										
Stockpile #1										
Lab #0940	08-04-03	7.9	53.4	8.6	30.1	90.1	2.1	48.6	350	20
Lab #1304	09-26-03	5.9	53.7	9.5	30.9	90.4	2.1	50.0	362	21
Lab #1685	11-11-03	7.6	43.4	20.5	28.5	89.3	1.9	51.7	369	20
Stockpile #2										
Lab #1066	08-21-03	1.9	47.0	10.3	40.8	87.6	4.8	58.7	412	56
MFA INC, COLUMBIA, MO										
MID-MISSOURI LIMESTONE INC-MBQ, KINGDOM CITY, MO										
Stockpile #1										
Lab #0941	08-04-03	7.2	53.5	11.8	27.5	96.8	1.4	48.0	371	13
Lab #1168	09-05-03	3.3	51.4	11.3	34.0	98.0	2.1	53.6	420	23
Lab #1495	10-15-03	4.9	52.8	9.9	32.4	96.6	2.6	51.5	398	27
Lab #1827	12-05-03	1.8	52.7	11.7	33.8	95.9	2.6	54.0	414	28
MID-MISSOURI LIMESTONE, INC.-HOUSTO, KINGDOM CITY, MO										
Stockpile #1										
Lab #0995	08-08-03	6.0	38.6	12.7	42.7	86.5	0.3	60.0	415	4
Lab #1164	09-05-03	5.5	45.5	10.2	38.8	82.6	0.2	56.3	372	2
Lab #1382	10-02-03	9.1	46.3	8.3	36.3	86.1	2.9	52.9	364	31
Lab #1644	11-11-03	5.1	49.8	12.2	32.9	93.9	0.1	52.7	396	1
Stockpile #2										
Lab #1525	10-27-03	7.7	47.7	11.6	33.0	92.5	0.1	51.9	384	1
Lab #1645	11-11-03	8.7	47.1	10.5	33.7	93.0	0.1	51.8	385	1
Lab #1662	11-14-03	8.2	46.0	11.8	34.0	93.0	0.1	52.6	391	1
MID-MISSOURI LIMESTONE-RIGGS, KINGDOM CITY, MO										
Stockpile #1										
Lab #1159	09-08-03	0.1	43.6	9.0	47.3	87.4	7.1	63.6	445	90

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		+8	-8+40	-40+60	-60				ENM	EMg
MID-MISSOURI LIMESTONE-RIGGS, KINGDOM CITY, MO (CONTINUED)										
Stockpile #1										
Lab #1398	10-10-03	0.1	47.9	10.0	42.0	90.3	8.2	60.0	433	98
Lab #1603	11-07-03	0.2	48.4	9.0	42.4	89.0	8.0	59.9	426	96
Stockpile #2										
Lab #0978	08-11-03	4.3	46.3	11.3	38.1	97.2	2.2	56.5	439	25
Lab #1158	09-08-03	3.8	47.0	11.1	38.1	97.1	2.3	56.5	439	26
Lab #1399	10-10-03	0.2	36.8	11.2	51.8	95.9	3.8	67.7	520	51
Lab #1604	11-07-03	2.3	42.1	9.1	46.5	93.5	4.5	62.5	467	56
MIDWEST MINERALS INC - JASPER, PITTSBURG, KS										
Stockpile #1										
Lab #1031	08-11-03	3.3	32.3	15.2	49.2	98.5	0.1	66.4	523	1
Lab #1491	10-22-03	3.7	33.2	15.8	47.3	98.0	0.1	65.1	510	1
MISSISSIPPI LIME COMPANY, STE GENEVIEVE, MO										
Stockpile #1										
Lab #1121	08-27-03	0.1	0.3	0.6	99.0	97.4	0.3	99.4	775	6
Lab #1410	10-09-03	0.0	0.2	0.5	99.3	98.5	0.3	99.7	785	6
Lab #1887	12-10-03	0.0	0.4	0.7	98.9	99.2	0.2	99.4	789	4
Stockpile #3										
Lab #1122	08-27-03	0.0	41.9	30.2	27.9	99.4	0.3	56.5	449	3
Lab #1411	10-09-03	0.0	43.6	27.6	28.8	98.7	0.3	56.3	444	3
Lab #1888	12-10-03	0.0	43.7	29.3	27.0	99.1	0.2	55.5	440	2
MISSOURI LIME AND MATERIAL CO., INC, EUREKA, MO										
MISSOURI VALLEY MATERIALS, WASHINGTON, MO										
MK MINERALS INC., MANHATTAN, KS										
Stockpile #1										
Lab #1020	08-11-03	0.0	0.8	3.3	95.9	88.3	0.6	98.1	693	12
Lab #1299	09-23-03	0.1	1.4	3.1	95.4	80.6	1.0	97.6	629	20
Lab #1547	10-28-03	0.0	1.1	3.2	95.7	84.4	0.7	97.9	661	14
Lab #1815	12-02-03	0.1	0.9	3.1	95.9	88.1	0.8	98.0	691	16
MO VALLEY GRAIN & PELLETIZING, MISSOURI VALLEY, IA										
MORRIS ROCK, DEERFIELD, MO										
Stockpile #1										
Lab #1138	08-28-03	2.1	48.6	10.8	38.5	92.8	1.2	57.1	424	14
Lab #1490	10-21-03	2.3	49.9	11.0	36.8	90.4	1.1	55.9	404	12
Lab #1789	11-24-03	2.5	55.2	11.3	31.0	93.3	1.0	51.6	385	10
MOUNTAIN GROVE QUARRY, MOUNTAIN GROVE, MO										
Stockpile #1										
Lab #1787	11-25-03	0.1	43.6	8.8	47.5	90.8	10.8	63.7	463	138
MUEKNS BROTHERS QUARRIES, INC-WEST, LOOSE CREEK, MO										
Stockpile #1										
Lab #1008	08-11-03	5.7	32.7	14.6	47.0	59.5*	7.2	63.9	0	0
Lab #1228	09-16-03	4.4	42.4	8.7	44.5	90.1	10.6	60.3	435	128
Lab #1236	09-18-03	5.0	46.2	8.2	40.6	91.5	10.7	57.1	418	122
Lab #1306	09-23-03	3.4	36.6	12.4	47.6	74.2	8.8	64.2	381	113
Lab #1581	10-27-03	4.0	31.2	18.4	46.4	87.7	10.4	65.2	458	136
MUEKNS BROS. QUARRY, LOOSE CREEK, MO										
Stockpile #2										
Lab #1120	08-25-03	1.2	49.4	9.0	40.4	90.1	11.1	58.2	419	129
Lab #1404	10-07-03	1.4	47.9	8.2	42.5	86.2	10.7	59.4	410	127
Lab #1609	11-04-03	0.8	44.7	10.7	43.8	81.7	9.8	61.4	401	120
Lab #1825	12-03-03	1.4	46.4	9.2	43.0	91.6	11.0	60.1	441	132
KEITH MURRAY, PLATO, MO										
NEMO SAND & GRAVEL QUARRY - BUFFALO, HERMITAGE, MO										
Stockpile #1										
Lab #1324	09-30-03	4.2	46.4	6.5	42.9	85.9	10.1	58.4	401	118
Lab #1632	11-04-03	3.8	49.2	6.7	40.3	85.1	10.0	56.6	385	113
Lab #1903	12-09-03	3.3	45.9	6.7	44.1	83.1	10.2	59.6	396	122
NEMO SAND & GRAVEL, QUARRY, HERMITAGE, MO										
Stockpile #1										
Lab #0932	08-05-03	0.5	36.9	13.7	48.9	63.4*	7.4	66.3	0	0
Lab #1182	09-09-03	1.5	42.7	8.4	47.4	84.8	10.0	63.1	428	126
Lab #1323	09-30-03	0.5	45.1	7.9	46.5	87.5	10.3	62.5	438	129
Lab #1445	10-15-03	2.3	35.6	8.4	53.7	83.6	10.1	67.6	452	137

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		+8	-8+40	-40+60	-60				ENM	EMg
NEMO SAND & GRAVEL, QUARRY, HERMITAGE, MO (CONTINUED)										
Stockpile #1										
Lab #1712	11-19-03	2.0	44.7	9.5	43.8	66.9	7.5	60.7	325	91
NORRIS AGGREGATE PROD. CO.-BARNARD, SAVANNAH, MO										
Stockpile #1										
Lab #1416	10-10-03	2.0	49.1	10.5	38.4	84.2	1.4	57.0	384	16
Lab #1666	11-11-03	5.7	55.3	7.5	31.5	85.1	1.4	49.8	339	14
Lab #1812	12-01-03	4.8	51.6	8.9	34.7	85.6	1.1	52.9	363	12
NORRIS AGGREGATES PROD. CO.-BETHANY, SAVANNAH, MO										
Stockpile #3										
Lab #1334	09-30-03	7.4	51.0	8.0	33.6	84.9	1.3	51.2	347	13
Lab #1485	10-21-03	7.4	47.5	11.1	34.0	86.2	0.9	52.5	362	9
Lab #1592	11-03-03	11.3*	49.4	8.0	31.3	86.4	0.7	48.5	0	0
Lab #1779	11-25-03	8.2	49.1	8.5	34.2	86.7	1.3	51.6	358	13
Lab #1782	11-26-03	8.2	49.4	8.4	34.0	88.4	1.2	51.4	363	12
Lab #1808	12-01-03	7.4	50.9	7.9	33.8	87.8	1.2	51.3	360	12
Lab #1907	12-22-03	7.7	50.5	8.1	33.7	82.6	1.3	51.2	338	13
NORRIS AGGREGATE PROD. CO. - BREIT, SAVANNAH, MO										
Stockpile #1										
Lab #1627	11-07-03	5.4	42.8	19.9	31.9	88.9	0.8	54.5	388	9
Lab #1671	11-12-03	7.6	54.8	8.8	28.8	85.6	0.9	47.8	327	9
Stockpile #2										
Lab #1478	10-13-03	5.7	41.5	10.1	42.7	80.1	1.6	59.1	379	19
NORRIS AGGREGATE PROD. CO.-GALLATIN, SAVANNAH, MO										
Stockpile #1										
Lab #1313	09-29-03	6.6	48.6	8.6	36.2	74.9	1.7	53.5	321	18
Lab #1468	10-14-03	6.8	48.6	19.6	25.0	70.9	1.8	48.9	277	18
Lab #1598	11-05-03	4.4	49.5	9.7	36.4	77.2	1.6	54.6	337	17
Lab #1777	11-24-03	5.2	60.1	11.1	23.6	79.8	1.5	45.3	289	14
Lab #1875	12-08-03	6.2	49.2	8.9	35.7	77.1	1.6	53.3	329	17
Lab #1910	12-23-03	2.7	43.7	13.5	40.1	78.4	1.6	59.1	371	19
NORRIS AGGREGATE PROD. CO.- GOODEN, SAVANNAH, MO										
Stockpile #1										
Lab #1320	10-01-03	2.4	49.8	9.5	38.3	82.6	1.8	56.5	373	20
Lab #1892	12-08-03	3.1	47.7	9.3	39.9	80.6	1.9	57.4	370	22
NORRIS AGGREGATE PRODUCTS CO - EAST, HUNTSVILLE, MO										
Stockpile #3										
Lab #0885	07-11-03	0.6	49.1	13.5	36.8	91.9	0.7	57.2	420	8
Lab #1096	08-25-03	0.3	42.2	12.8	44.7	94.5	2.5	62.9	476	31
Lab #1259	09-24-03	0.6	50.0	13.0	36.4	94.0	0.6	56.7	426	7
Lab #1401	10-08-03	1.9	47.5	13.7	36.9	89.6	0.8	57.0	409	9
Lab #1648	11-10-03	0.8	47.5	13.4	38.3	91.1	1.7	58.2	424	20
Lab #1873	12-04-03	0.4	48.3	14.2	37.1	94.5	1.7	57.7	436	20
NORRIS AGGREGATE PRODUCTS CO - WEST, HUNTSVILLE, MO										
Stockpile #1										
Lab #1258	09-24-03	4.0	49.4	12.2	34.4	85.6	0.3	54.1	370	3
Lab #1400	10-08-03	5.1	50.1	11.6	33.2	84.5	0.3	52.7	356	3
Lab #1647	11-10-03	4.0	48.9	12.5	34.6	86.3	0.2	54.3	375	2
Lab #1872	12-04-03	3.6	51.1	14.5	30.8	87.4	0.2	52.3	366	2
Lab #0713	05-29-03	3.9	52.7	14.1	29.3	86.7	0.2	50.9	353	2
NORRIS AGGREGATE PROD. CO.-JEFFRIES, SAVANNAH, MO										
Stockpile #3										
Lab #1332	09-30-03	4.8	50.0	8.8	36.4	87.7	1.0	54.2	380	11
Lab #1483	10-21-03	4.2	50.2	10.2	35.4	88.1	1.0	54.1	381	11
Lab #1591	11-03-03	5.6	47.4	9.1	37.9	86.2	1.1	55.2	381	12
Lab #1781	11-25-03	4.2	48.5	10.0	37.3	88.7	1.0	55.4	393	11
Lab #1906	12-22-03	5.0	37.8	20.6	36.6	86.4	1.0	58.4	404	12
Stockpile #4										
Lab #1333	09-30-03	4.5	48.9	9.5	37.1	90.0	0.8	55.0	396	9
Lab #1484	10-21-03	4.5	48.7	9.7	37.1	87.9	0.8	55.1	387	9
Lab #1590	11-03-03	6.2	50.3	9.3	34.2	88.0	0.8	52.4	369	8
Lab #1780	11-25-03	4.1	47.5	10.0	38.4	88.7	0.8	56.3	399	9
Lab #1905	12-22-03	5.8	51.7	9.4	33.1	87.3	0.7	51.7	361	7

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AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JULY 1 THROUGH DECEMBER 31, 2003

Distributor	Date Sampled	U.S. Sieve Fraction, %				% CCE	% Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
NORRIS AGGREGATE PROD. CO.-MAITLAND, SAVANNAH, MO										
Stockpile #1										
Lab #1668	11-11-03	1.6	48.5	12.0	37.9	88.8	1.1	57.2	407	13
Lab #1811	12-01-03	4.4	50.6	9.9	35.1	88.1	1.2	53.7	378	13
NORRIS AGGREGATE PROD. CO.- MERCER, SAVANNAH, MO										
Stockpile #1										
Lab #1482	10-21-03	3.8	42.4	10.1	43.7	87.8	0.9	60.4	424	11
Lab #1594	11-04-03	3.4	41.7	10.4	44.5	87.7	0.9	61.2	429	11
Lab #1810	12-02-03	4.1	43.2	10.2	42.5	87.1	0.9	59.4	414	11
NORRIS AGGREGATE PROD. CO. -ROUTE C, SAVANNAH, MO										
NORRIS AGGREGATE PROD CO-PRINCETON, SAVANNAH, MO										
NORRIS AGGREGATE PROD. CO.- TRENTON, SAVANNAH, MO										
Stockpile #3										
Lab #1481	10-20-03	2.3	50.5	8.5	38.7	75.4	1.2	56.4	340	14
Lab #1597	11-05-03	3.8	52.7	8.3	35.2	85.6	1.1	53.4	365	12
Lab #1778	11-24-03	4.1	54.1	7.2	34.6	78.8	1.3	52.4	331	14
Lab #1874	12-08-03	3.3	49.7	8.5	38.5	93.7	1.2	56.0	420	13
NUTRI JECT - QUINCY, HUDSON, IA										
NUTRI-JECT SYSTEMS INC. - TRENTON, HUDSON, IA										
LEO O'LAUGHLIN INC, SHELBY, MO										
Stockpile #1										
Lab #0987	08-07-03	5.9	45.7	9.6	38.8	92.1	1.6	56.0	412	18
Lab #1199	09-11-03	7.3	46.2	9.4	37.1	91.3	1.9	54.3	397	21
Lab #1504	10-20-03	7.0	44.2	9.7	39.1	90.6	1.4	56.0	406	16
Lab #1726	11-19-03	6.7	44.3	10.5	38.5	91.5	1.7	55.9	409	19
PHENIX ROCK, ASH GROVE, MO										
PRESTAGE QUARRIES INC, TIPTON, MO										
Stockpile #1										
Lab #1057	08-18-03	0.3	39.6	9.3	50.8	70.1	5.8	66.3	372	77
Lab #1264	09-24-03	0.0	47.3	11.0	41.7	80.4	4.7	60.1	387	57
Lab #1513	10-20-03	0.2	44.2	8.9	46.7	74.2	6.3	63.1	375	79
Lab #1735	11-21-03	0.1	37.8	11.6	50.5	70.4	6.0	66.9	377	80
BARRY REID - MENDOTA QUARRY, GREEN CITY, MO										
Stockpile #2										
Lab #1335	10-01-03	3.4	44.8	11.3	40.5	92.1	1.6	58.5	431	19
ROCK QUARRIES, LLC, MOUNTAIN GROVE, MO										
ROCK QUARRIES, LLC, MOUNTAIN GROVE-WILLOW SPRINGS, MO										
RUBLE ROCK & LIME INC, PATTERSON, MO										
Stockpile #1										
Lab #0872	07-01-03	2.5	12.8	25.4	59.3	101.2	11.9	77.7	629	185
Lab #0922	07-29-03	4.4	11.0	17.0	67.6	100.9	12.1	80.6	650	195
Lab #1094	08-21-03	3.8	13.8	24.7	57.7	100.8	12.0	76.0	613	182
Lab #1226	09-17-03	3.2	9.2	20.5	67.1	102.5	12.2	81.7	670	199
Lab #1452	10-17-03	3.2	15.0	25.4	56.4	100.3	12.4	75.4	605	187
Lab #1743	11-17-03	3.8	13.8	23.2	59.2	100.9	12.3	76.6	618	188
S & A CONSTRUCTION LTD, ALLENDALE, MO										
Stockpile #1										
Lab #1351	10-02-01	3.9	37.2	9.3	49.6	82.0	0.7	64.5	423	9
Lab #1677	11-28-01	0.4	21.0	21.0	57.6	96.2	0.2	75.5	581	3
Lab #0949	08-04-03	0.5	41.1	10.5	47.9	69.0	1.3	64.5	356	17
Lab #1171	09-03-03	0.5	42.4	10.2	46.9	64.0*	1.5	63.6	0	0
Lab #1319	10-01-03	1.4	45.6	10.1	42.9	69.6	1.4	60.4	336	17
Lab #1705	11-18-03	0.4	50.7	9.5	39.4	75.1	1.3	57.8	347	15
Lab #1893	12-08-03	1.0	44.6	10.1	44.3	68.6	1.4	61.5	338	17
SCHILDBERG CONST. CO.-BEDFORD Q., GREENFIELD, IA										
Stockpile #1										
Lab #0952	08-05-03	0.7	40.2	11.5	47.6	84.5	0.8	64.6	436	10
Lab #1169	09-05-03	0.3	41.2	11.6	46.9	84.5	0.8	64.2	434	10
Lab #1321	10-02-03	0.4	40.6	11.4	47.6	83.8	0.8	64.6	433	10
Lab #1766	11-24-03	0.2	40.1	11.1	48.6	84.6	0.8	65.3	442	10
SCHILDBERG CONST. CO.-GRAHAM MO Q, GREENFIELD, IA										
Stockpile #1										
Lab #0954	08-08-03	3.9	48.9	10.3	36.9	87.4	0.6	55.3	387	7
Lab #1215	09-09-03	4.3	52.9	9.6	33.2	87.6	0.6	52.2	366	6
Lab #1417	10-10-03	4.7	52.1	9.7	33.5	87.1	0.6	52.3	365	6

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JULY 1 THROUGH DECEMBER 31, 2003

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
SCHILDBERG CONST. CO.-GRAHAM MO Q, GREENFIELD, IA (CONTINUED)										
Stockpile #1										
Lab #1667	11-11-03	3.8	51.2	10.6	34.4	86.9	0.6	53.6	372	6
Lab #1813	12-01-03	4.2	51.0	10.1	34.7	86.6	0.6	53.5	371	6
SCHILDBERG CONST. CO.-SHAMBAUGH Q, GREENFIELD, IA										
Stockpile #1										
Lab #0953	08-05-03	5.3	47.8	10.2	36.7	82.7	0.9	54.8	362	10
Lab #1170	09-05-03	1.0	44.9	12.6	41.5	83.6	1.1	60.3	403	13
Lab #1322	10-02-03	2.0	47.9	11.3	38.8	82.9	1.2	57.6	382	14
Lab #1767	11-24-03	2.3	47.8	11.8	38.1	84.5	0.9	57.1	386	10
SCHILDBERG CONST. CO.-THURMAN, GREENFIELD, IA										
Stockpile #1										
Lab #1070	08-20-03	7.9	49.8	9.1	33.2	75.1	0.8	51.1	307	8
Lab #1864	12-04-03	3.8	46.5	9.7	40.0	68.5	2.4	57.4	315	28
SOUTHWEST QUARRY & MATERIAL INC, ROLLA, MO										
SPRINGFIELD UNDERGROUND, INC., SPRINGFIELD, MO										
Stockpile #1										
Lab #1039	08-14-03	0.1	10.9	14.3	74.7	98.5	0.2	86.0	678	3
Lab #1458	10-14-03	0.2	5.2	10.0	84.6	97.9	0.3	91.9	720	6
Lab #1859	12-03-03	0.1	7.1	13.8	79.0	97.8	0.3	89.1	697	5
Stockpile #2										
Lab #1040	08-14-03	0.6	8.2	7.5	83.7	98.2	0.2	90.3	709	4
Lab #1459	10-14-03	0.6	15.6	11.6	72.2	97.7	0.2	83.1	649	3
Lab #1860	12-03-03	0.3	5.0	5.0	89.7	98.3	0.2	94.0	739	4
S-S-S INC, LOUISIANA, MO										
Stockpile #1										
Lab #1060	08-12-03	5.3	50.6	10.7	33.4	98.5	0.2	52.5	413	2
Lab #1239	09-18-03	5.2	47.3	11.2	36.3	98.7	0.1	54.8	433	1
Lab #1502	10-16-03	5.6	45.7	11.0	37.7	98.4	0.1	55.7	439	1
Lab #1681	11-11-03	5.4	48.5	11.2	34.9	98.8	0.2	53.7	425	2
T & M STONE LLC, FAIR PLAY, MO										
Stockpile #1										
Lab #1100	08-26-03	1.3	38.5	16.6	43.6	97.9	0.2	63.2	495	3
Stockpile #2										
Lab #1101	08-26-03	3.1	37.8	16.1	43.0	97.5	0.2	62.1	484	2
Lab #1489	10-20-03	0.0	38.8	16.1	45.1	96.6	0.1	64.5	498	1
Lab #1848	12-02-03	0.0	37.5	17.5	45.0	98.0	0.1	64.9	509	1
TAYLOR QUARRIES, LOCKWOOD, MO										
Stockpile #1										
Lab #1035	08-13-03	2.8	48.0	14.2	35.0	96.3	0.7	55.5	428	8
Lab #1425	10-09-03	2.8	45.6	14.7	36.9	91.6	0.7	57.1	419	8
TOWER ROCK STONE CO, SCOTT CITY, MO										
Stockpile #2										
Lab #0917	07-28-03	3.3	42.6	13.4	40.7	97.7	1.5	59.4	464	18
Lab #1111	08-26-03	1.9	41.2	13.7	43.2	97.3	2.3	61.7	480	28
Lab #1360	09-29-03	4.2	45.3	12.9	37.6	97.2	1.1	56.7	441	12
Lab #1535	10-29-03	3.5	42.8	13.2	40.5	97.6	1.6	59.1	462	19
Lab #1746	11-19-03	1.1	44.3	13.1	41.5	96.8	1.2	60.4	468	15
Stockpile #3										
Lab #0918	07-28-03	1.5	36.3	11.4	50.8	99.2	9.9	66.7	529	132
Lab #1110	08-26-03	1.0	34.9	9.5	54.6	99.4	9.3	69.0	549	128
Lab #1361	09-29-03	1.0	40.2	11.5	47.3	98.0	9.1	64.3	504	117
TOWER ROCK STONE CO, STE GENEVIEVE, MO										
Stockpile #1										
Lab #1123	08-27-03	0.6	41.2	15.8	42.4	98.2	2.3	62.2	488	29
Lab #1413	10-09-03	1.1	43.6	12.9	42.4	96.4	2.5	61.0	471	31
Lab #1885	12-10-03	0.2	44.0	14.7	41.1	93.5	0.7	60.9	456	9
Stockpile #2										
Lab #1124	08-27-03	0.4	28.7	14.3	56.6	100.9	7.2	72.4	584	104
Lab #1414	10-09-03	0.5	37.6	13.6	48.3	95.5	7.9	65.9	503	104
Lab #1886	12-10-03	1.3	45.1	12.2	41.4	96.6	6.7	60.0	464	80
TRAGER LIMESTONE, CHILLICOTHE, MO										
Stockpile #1										
Lab #1469	10-14-03	0.1	41.8	22.1	36.0	85.0	0.5	59.7	406	6
Lab #1640	11-05-03	0.1	51.3	11.0	37.6	82.9	0.7	57.0	378	8

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JULY 1 THROUGH DECEMBER 31, 2003

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
TRAGER LIMESTONE, CHILLICOTHE, MO (CONTINUED)										
Stockpile #1										
Lab #1775	11-24-03	0.0	53.7	10.9	35.4	88.0	0.5	55.4	390	6
Lab #1877	12-08-03	0.0	49.9	11.5	38.6	83.4	0.6	58.0	387	7
Lab #1911	12-23-03	0.2	51.3	10.9	37.6	84.6	0.5	57.0	386	6
TWIN LAKES QUARRIES INC, MOUNTAIN HOME, AR										
UEHLIN QUARRY, AMAZONIA, MO										
Stockpile #1										
Lab #1078	08-21-03	5.1	47.4	8.7	38.8	74.9	2.1	55.9	335	23
Lab #1176	09-04-03	2.7	51.4	9.9	36.0	76.4	1.8	54.8	335	20
Lab #1477	10-13-03	7.7	50.1	8.2	34.0	76.1	1.9	51.4	313	20
Lab #1672	11-12-03	0.0	5.8	8.6	85.6	74.9	2.5	92.2	553	46
UNITED SUPPLIERS, ELDORA, IA										
VULCAN MATERIALS, JONESBORO, IL										
Stockpile #1										
Lab #0883	07-08-03	3.3	39.7	11.8	45.2	99.2	0.3	62.2	494	4
Lab #0969	08-08-03	5.6	44.7	10.9	38.8	99.3	0.4	56.5	449	5
Lab #1146	09-03-03	4.9	41.6	11.2	42.3	98.5	0.4	59.4	468	5
Lab #1376	10-06-03	1.6	39.2	12.5	46.7	99.1	0.6	64.0	507	8
Lab #1450	10-14-03	4.6	39.8	12.2	43.4	99.0	0.5	60.7	481	6
Lab #1518	10-20-03	3.1	39.9	12.2	44.8	98.9	0.4	62.1	491	5
Lab #1838	12-03-03	3.1	39.7	11.9	45.3	98.9	0.5	62.4	493	6
WADE AG PRODUCTS-MAIN OFC, LACYGNE, KS										
Stockpile #2										
Lab #1107	08-27-03	1.9	46.1	10.1	41.9	80.3	1.2	59.5	382	14
Lab #1328	10-01-03	2.1	48.1	9.8	40.0	80.6	1.1	57.9	373	13
Lab #1635	11-05-03	2.9	47.1	10.0	40.0	80.0	1.2	57.8	370	14
WADE AG PRODUCTS Q DREXEL, LACYGNE, KS										
Stockpile #1										
Lab #1106	08-27-03	2.9	47.7	9.1	40.3	78.3	1.1	57.7	361	13
Lab #1327	10-01-03	3.8	49.3	9.2	37.7	79.6	1.1	55.5	354	12
Lab #1634	11-05-03	2.8	47.4	9.2	40.6	79.2	1.1	58.0	367	13
WADE AG PRODUCTS Q PLEASANTON, LACYGNE, KS										
Stockpile #1										
Lab #1638	11-05-03	4.3	50.8	8.8	36.1	76.8	0.6	54.1	332	6
FRED WEBER INC.-AUBURN QUARRY, ELSBERRY, MO										
FRED WEBER INC.-BLUFF CITY MINERALS, ALTON, IL										
FRED WEBER, INC - FOLEY QUARRY, FOLEY, MO										
FRED WEBER INC-NORTH QUARRY, MARYLAND HEIGHTS, MO										
Stockpile #1										
Lab #1064	08-20-03	1.1	3.3	2.5	93.1	88.9	2.1	95.4	679	40
Lab #1307	09-24-03	0.4	1.9	2.6	95.1	93.7	1.1	97.1	728	21
Lab #1770	11-24-03	0.0	1.2	2.9	95.9	95.8	4.4	97.9	751	86
WIELAND HAULING INC - PRINCETON, BETHANY, MO										
WILKERSON BROS QUARRY, PARIS, MO										
Stockpile #1										
Lab #0981	08-04-03	9.7	47.8	10.1	32.4	83.4	0.1	50.4	336	1
Lab #1149	09-02-03	5.5	49.4	10.9	34.2	86.2	0.3	53.1	366	3
Lab #1352	10-02-03	10.1*	44.6	15.3	30.0	84.8	0.3	50.3	0	0
Lab #1679	11-10-03	3.1	47.6	11.5	37.8	96.0	3.9	56.6	435	44
Lab #1884	12-08-03	6.4	46.1	11.2	36.3	92.2	2.2	54.5	402	24
WILLIAMSVILLE STONE CO, POPLAR BLUFF, MO										
Stockpile #4										
Lab #1051	08-13-03	0.0	12.0	18.2	69.8	97.3	11.5	83.7	652	193
Lab #1095	08-21-03	0.2	26.4	18.6	54.8	95.1	11.3	72.6	552	164
Lab #1279	09-22-03	0.0	26.2	19.0	54.8	97.6	11.6	72.8	568	169
Lab #1453	10-17-03	0.0	19.5	20.8	59.7	95.1	11.7	77.1	586	180
Lab #1839	12-04-03	0.5	39.2	15.3	45.0	95.6	11.4	64.0	489	146

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		+8	-8+40	-40+60	-60				ENM	EMg
AG COOP SERVICES INC, OTTERVILLE, MO LAFARGE QUARRY, SEDALIA, MO	Lab #1512 10-20-03	9.6	46.0	9.6	34.8	97.7	3.1	52.1	407	32
AG DISTRIBUTORS, CATRON, MO VULCAN MATERIALS, JONESBORO, IL	Lab #0908 07-22-03	4.2	41.9	12.0	41.9	99.2	0.4	59.6	473	5
AGRI ENTERPRISES, LICKING, MO SPRINGFIELD UNDERGROUND, INC., SPRINGFIELD, MO	Lab #1135 08-27-03	0.2	6.1	15.0	78.7	98.5	0.2	89.2	703	4
AGRI SERVICES OF LEBANON, LEBANON, MO CONCO QUARRIES INC Q US 160, WILLARD, MO	Lab #1142 09-04-03	0.1	15.6	16.8	67.5	98.4	0.2	81.5	641	3
BARTLETT & CO, HIGGINSVILLE, MO LAFARGE QUARRY, SEDALIA, MO	Lab #1466 10-16-03	10.0	46.1	10.5	33.4	97.4	0.8	51.2	399	8
BATESVILLE GRAIN & FERTILIZER, BROSELEY, MO OAKLEY MISSOURI, INC, CARUTHERSVILLE, MO	Lab #1189 09-09-03	0.2	4.5	5.6	89.7	90.3	2.7	94.2	680	51
BLAIR FEED & GRAIN INC, NEW MELLE, MO MAGRUDER LIMESTONE CO Q TROY, TROY, MO	Lab #1167 09-03-03	5.8	47.7	9.4	37.1	91.9	1.7	54.7	402	19
BOYLES FARM SUPPLY, FISK, MO MIDWEST AGRI-CHEMICO, CAPE GIRARDEAU, MO	Lab #0902 07-21-03	0.4	1.5	7.9	90.2	90.3	1.6	95.3	689	31
BOLIVAR FARMERS EXCHANGE, BOLIVAR, MO CONCO QUARRIES INC Q US 160, WILLARD, MO	Lab #1103 08-26-03	0.1	9.8	15.8	74.3	98.5	0.2	86.2	679	3
BOLLINGER COUNTY COOP, MARBLE HILL, MO FRED WEBER INC.-BLUFF CITY MINERALS, ALTON, IL	Lab #0874 07-01-03	0.1	10.9	11.5	77.5	90.4	1.6	87.1	630	28
BOOTHEEL LIMESTONE, KENNETT, MO RUBLE ROCK & LIME INC, PATTERSON, MO	Lab #0914 07-24-03	3.2	11.0	23.2	62.6	101.4	12.0	79.3	643	190
BOOTHEEL LIMESTONE - SENATH, KENNETT, MO RUBLE ROCK & LIME INC, PATTERSON, MO	Lab #0913 07-24-03	5.2	10.6	20.9	63.3	101.2	11.9	78.5	635	187
BRENDA KAY CONSTRUCTION, BENTON, MO VULCAN MATERIALS, JONESBORO, IL	Lab #0898 07-17-03	2.9	35.4	13.9	47.8	96.9	0.5	65.0	504	6
BROWN'S AGRISERVICE, ROCKPORT, MO MK MINERALS INC., MANHATTAN, KS	Lab #1415 10-06-03	0.0	0.9	2.7	96.4	86.6	0.6	98.2	681	12
BUCHHEIT'S INC, PERRYVILLE, MO MARTIN MARIETTA AGGREGATE-FREDONIA, FREDONIA, KY	Lab #1109 08-26-03	5.0	89.4	2.1	3.5	97.8	1.3	27.1	212	7
CARNEALS FARM SUPPLY, INC, BLAIRSTOWN, MO UNITED SUPPLIERS, ELDORA, IA	Lab #1628 11-03-03	0.2	1.2	3.5	95.1	85.4	0.5	97.5	666	10
DOUG CHILDERS, GREEN CITY, MO KNOX COUNTY STONE CO, EDINA, MO	Lab #1470 10-15-03	5.0	46.5	10.4	38.1	94.0	0.7	56.0	421	8
CO-OP SERVICE CENTER, WHITEWATER, MO MIDWEST AGRI-CHEMICO, CAPE GIRARDEAU, MO	Lab #1283 09-23-03	0.5	5.8	7.4	86.3	92.3	4.9	92.2	681	90
CROP PRODUCTION SERVICES, WESTBORO, MO MO VALLEY GRAIN & PELLETIZING, MISSOURI VALLEY, IA	Lab #1479 10-16-03	1.1	10.2	9.1	79.6	88.6	0.3	87.6	621	5
DELTA GROWERS ASSN-EAST PRAIRIE, CHARLESTON, MO VULCAN MATERIALS, JONESBORO, IL	Lab #0896 07-15-03	3.3	36.7	12.3	47.7	96.8	0.6	64.3	498	8
DELTA GROWERS ASSOCIATION, MATTHEWS, MO FRED WEBER INC.-BLUFF CITY MINERALS CO., ALTON, IL	Lab #0968 08-07-03	0.4	3.0	5.5	91.1	89.1	1.9	95.2	678	36

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EAKIN LIME SERVICE, BELL CITY, MO RUBLE ROCK & LIME INC, PATTERSON, MO	Lab #0905 07-22-03	4.6	10.9	20.2	64.3	100.5	11.8	79.1	636	187
FARMERS COOPERATIVE ASSN #301, SULLIVAN, MO FARMERS COOPERATIVE ASSN #301, SULLIVAN, MO	Lab #1207 09-09-03	0.3	20.4	21.3	58.0	89.9	10.4	75.9	546	158
FARMERS LITTER & LIME, SIKESTON, MO FARMERS LITTER & LIME, SIKESTON, MO	Lab #1429 10-09-03	0.0	0.9	0.6	98.5	71.9	0.8	99.1	570	16
FARMERS LITTER & LIME, SIKESTON, MO FARMERS LITTER & LIME, SIKESTON, MO	Lab #1451 10-16-03	0.2	1.0	0.5	98.3	78.2	0.9	98.9	618	18
FARMERS PRODUCERS EXCHANGE-CONWAY, LEBANON, MO CONCO QUARRIES INC Q US 160, WILLARD, MO	Lab #1325 09-30-03	0.1	11.0	16.0	72.9	96.9	0.2	85.3	661	3
FOWLER ELEVATOR, UNIONVILLE, MO KELLY LIMESTONE LLC, KIRKSVILLE, MO	Lab #1433 10-10-03	1.2	16.8	4.4	77.6	90.2	1.2	84.4	609	20
GIBSON LIME CO-DEXTER, DEXTER, MO RUBLE ROCK & LIME INC, PATTERSON, MO	Lab #0887 07-11-03	5.4	12.2	22.2	60.2	101.8	11.4	76.6	624	175
GLENNONVILLE LIQUID FERTILIZER, QULIN, MO RUBLE ROCK & LIME INC, PATTERSON, MO	Lab #1188 09-08-03	7.5	11.4	21.4	59.7	101.0	11.9	75.4	609	179
TOM GRAY FARM SERVICE, FARIDEALING, MO RUBLE ROCK & LIME INC, PATTERSON, MO	Lab #0886 07-11-03	6.1	11.4	23.2	59.3	101.2	11.7	76.1	616	178
GRAY'S FARM SERVICE, NAYLOR, MO RUBLE ROCK & LIME INC, PATTERSON, MO	Lab #0884 07-09-03	4.4	10.8	20.5	64.3	99.9	11.5	79.3	634	182
HAWK FERTILIZER, BOLIVAR, MO CONCO QUARRIES INC Q US 160, WILLARD, MO	Lab #1102 08-26-03	0.1	11.7	16.5	71.7	98.4	0.2	84.5	665	3
HEARTLAND APPLICATION, SIKESTON, MO TOWER ROCK STONE CO, SCOTT CITY, MO	Lab #0907 07-22-03	1.3	35.0	16.1	47.6	98.9	8.7	66.0	522	115
HEIMSOOTH AG SERVICE, CORDER, MO LAFARGE QUARRY, SEDALIA, MO	Lab #1288 09-29-03	0.3	44.1	9.2	46.4	77.8	3.4	62.9	392	43
HENSON FARM SUPPLY, WILLIAMSVILLE, MO RUBLE ROCK & LIME INC, PATTERSON, MO	Lab #1757 11-24-03	3.1	13.0	23.9	60.0	100.5	12.1	77.6	624	188
LOUIS HERZTING JR, FREEBURG, MO LEAD BELT MATERIALS CO INC, FLAT RIVER, MO	Lab #0943 08-05-03	0.2	19.5	20.7	59.6	92.3	6.2	76.9	568	95
HOFFMAN & REED INC, TRENTON, MO UNITED SUPPLIERS, ELDORA, IA	Lab #1480 10-20-03	0.1	1.4	2.8	95.7	83.3	0.7	97.7	651	14
JAMES AGRI-CENTER INC, NEELYVILLE, MO RUBLE ROCK & LIME INC, PATTERSON, MO	Lab #0904 07-21-03	4.7	11.5	21.8	62.0	100.9	11.8	78.0	629	184
KELLY LIME & ROCK, LA PLATA, MO KELLY LIMESTONE LLC, KIRKSVILLE, MO	Lab #1254 09-23-03	1.8	40.3	11.1	46.8	91.6	1.9	63.5	466	24
KELSO MILLING CO, SCOTT CITY, MO UNITED SUPPLIERS, ELDORA, IA	Lab #1192 09-10-03	0.0	4.4	5.6	90.0	90.8	2.4	94.5	686	45
KEN MO AG CENTER, KENNETT, MO RUBLE ROCK & LIME INC, PATTERSON, MO	Lab #0912 07-24-03	6.2	10.8	21.7	61.3	100.8	11.9	77.0	621	183
KEN MO AG CENTER, KENNETT, MO RUBLE ROCK & LIME INC, PATTERSON, MO	Lab #0911 07-24-03	4.6	10.6	21.2	63.6	101.2	11.9	79.0	639	188

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KINDER PLANT FOOD, LICKING, MO LEAD BELT MATERIALS CO INC, FLAT RIVER, MO	Lab #1134 08-27-03	0.2	23.2	24.6	52.0	86.9	10.1	72.6	504	147
LEGRAND FERTILIZER, POPLAR BLUFF, MO FRED WEBER INC.-BLUFF CITY MINERALS CO., ALTON, IL	Lab #0903 07-21-03	0.1	4.4	6.7	88.8	90.2	2.5	93.9	678	47
JERRY LINHART, FAYETTE, MO BOONE QUARRIES - EAST, COLUMBIA, MO	Lab #1394 10-07-03	8.3	50.1	8.8	32.8	89.6	4.4	50.6	363	45
LINNEMAN LIME & FERT, SALISBURY, MO NORRIS AGGREGATE PRODUCTS CO - WEST, HUNTSVILLE, MO	Lab #1063 08-21-03	0.3	45.1	13.2	41.4	95.3	1.5	60.6	462	18
LYNN SHARPE LIME, WAYNESVILLE, MO CONCO QUARRIES INC Q US 160, WILLARD, MO	Lab #1011 08-12-03	0.6	12.0	16.2	71.2	94.9	0.4	83.9	637	7
MFA EXCHANGE, CHAMOIS, MO MERTENS CONST CO-AUXVASSE, KINGDOM CITY, MO	Lab #1337 09-29-03	2.6	44.5	10.5	42.4	93.7	3.7	59.8	448	44
MFA EXCHANGE, META, MO MUEKNS BROS. QUARRY, LOOSE CREEK, MO	Lab #1009 08-12-03	2.5	44.9	8.4	44.2	84.3	10.2	60.5	408	123
MFA AGRI SERVICES, ADVANCE, MO RUBLE ROCK & LIME INC, PATTERSON, MO	Lab #0876 07-10-03	2.4	9.5	21.5	66.6	98.7	11.5	81.9	646	188
MFA AGRI SERVICE, BENTON, MO TOWER ROCK STONE CO, SCOTT CITY, MO	Lab #1362 09-29-03	3.3	43.3	13.0	40.4	97.4	1.4	59.0	460	17
MFA AGRI SERVICE, BERNIE, MO VULCAN MATERIALS, JONESBORO, IL	Lab #1751 11-20-03	2.8	40.5	11.9	44.8	99.1	0.4	62.1	492	5
MFA AGRI SERVICE, BETHANY, MO MK MINERALS INC., MANHATTAN, KS	Lab #1593 11-03-03	0.1	1.5	3.7	94.7	85.5	0.6	97.3	665	12
MFA AGRI SERVICES, BIRCH TREE, MO ASC MINERALS PROCESSING, ALLERTON, IL	Lab #1143 08-28-03	0.2	1.5	4.3	94.0	90.5	0.3	97.0	702	6
MFA AGRI SERVICE, BROOKFIELD, MO KELLY LIMESTONE LLC, KIRKSVILLE, MO	Lab #1219 09-11-03	1.3	16.5	4.3	77.9	90.2	1.3	84.6	611	22
MFA AGRI SERVICE, BROWNING, MO KELLY LIMESTONE LLC, KIRKSVILLE, MO	Lab #1494 10-24-03	0.2	4.4	5.3	90.1	90.5	2.2	94.4	683	42
MFA AGRI SERVICE, LANCASTER, MO KELLY LIMESTONE LLC, KIRKSVILLE, MO	Lab #1473 10-16-03	0.8	13.0	4.2	82.0	91.2	1.0	87.8	640	18
FARMERS PRODUCE EXCHANGE, LEBANON, MO CONCO QUARRIES INC Q US 160, WILLARD, MO	Lab #1141 09-04-03	0.3	13.5	16.4	69.8	94.9	0.2	83.0	630	3
MFA AGRI SERVICE, LEXINGTON, MO FRED WEBER INC.-BLUFF CITY MINERALS CO., ALTON, IL	Lab #1289 09-29-03	0.1	5.4	10.6	83.9	90.6	2.0	91.6	664	37
MFA AGRI SERVICE, MACON, MO KELLY LIMESTONE LLC, KIRKSVILLE, MO	Lab #1436 10-13-03	0.0	2.0	5.8	92.2	88.7	0.4	96.2	682	8
MFA AGRI SERVICE, MILAN, MO KELLY LIMESTONE LLC, KIRKSVILLE, MO	Lab #1336 10-01-03	2.9	14.6	4.0	78.5	92.6	1.3	84.6	626	22
MFA AGRI SERVICE, MOBERLY, MO KELLY LIMESTONE LLC, KIRKSVILLE, MO	Lab #1257 09-24-03	1.3	15.5	4.7	78.5	91.8	1.6	85.2	626	27
MFA AGRI SERVICE, NEW CAMBRIA, MO MISSISSIPPI LIME MANAGEMENT COMPANY, ALTON, IL	Lab #1437 10-13-03	0.2	3.8	6.0	90.0	89.8	2.8	94.6	679	53

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MFA AGRI SERVICE, OWENSVILLE, MO CRAWFORD LIME & MATERIAL CO, CUBA, MO	Lab #1612 11-05-03	1.7	45.7	9.6	43.0	83.0	9.8	60.2	400	118
MFA EXCHANGE, SALEM, MO RUBLE ROCK & LIME INC, PATTERSON, MO	Lab #1822 12-01-03	3.4	15.4	23.0	58.2	100.5	12.4	75.9	610	188
MFA AGRI SERVICE, SALISBURY, MO KELLY LIMESTONE LLC, KIRKSVILLE, MO	Lab #1179 09-10-03	2.2	14.2	4.9	78.7	89.9	1.3	85.2	613	22
MFA AGRI SERVICES, SHERIDAN, MO MK MINERALS INC., MANHATTAN, KS	Lab #1549 10-29-03	0.0	1.3	3.4	95.3	85.4	0.6	97.7	667	12
MFA AGRI SERVICE, TRENTON, MO MK MINERALS INC., MANHATTAN, KS	Lab #1595 11-04-03	0.0	1.2	3.1	95.7	85.8	0.5	97.9	672	10
MFA AGRI SERVICE, UNIONVILLE, MO KELLY LIMESTONE LLC, KIRKSVILLE, MO	Lab #1253 09-22-03	3.3	16.2	4.3	76.2	92.4	1.1	82.8	612	18
MADISON FARM SUPPLY, FREDERICKTOWN, MO ASC MINERALS PROCESSING, ALLERTON, IL	Lab #0873 07-01-03	0.1	0.8	3.6	95.5	89.5	0.4	97.9	701	8
MRM AG SERVICE INC, EAST PRAIRIE, MO RUBLE ROCK & LIME INC, PATTERSON, MO	Lab #0892 07-15-03	5.3	11.9	34.2	48.6	101.4	12.2	72.1	585	176
MYRTLE FERTILIZER, MYRTLE, MO CONCO QUARRIES INC Q US 160, WILLARD, MO	Lab #1531 10-28-03	0.0	10.5	14.4	75.1	97.5	0.1	86.4	674	2
LEO O'LAUGHLIN, MACON, MO CENTRAL STONE COMPANY - HUNTINGTON, HANNIBAL, MO	Lab #1255 09-23-03	1.1	31.4	12.1	55.4	90.8	0.3	70.5	512	4
LEO O'LAUGHLIN INC, MARCELINE, MO CENTRAL STONE COMPANY - HUNTINGTON, HANNIBAL, MO	Lab #1221 09-11-03	1.0	33.7	11.7	53.6	90.9	0.4	69.0	502	6
QMI FERTILIZER & GRAIN INC, PARMA, MO THE ANDERSON'S, MAUMEE, OH	Lab #1617 11-03-03	0.3	7.4	9.3	83.0	91.5	4.0	90.4	662	72
RAY CARROLL CO-CARROLLTON, RICHMOND, MO MK MINERALS INC., MANHATTAN, KS	Lab #1386 10-06-03	0.0	1.1	3.1	95.8	85.3	0.7	97.9	668	14
JP ROSS COTTON CO-FRISCO, ESSEX, MO RUBLE ROCK & LIME INC, PATTERSON, MO	Lab #0909 07-23-03	2.9	9.6	19.6	67.9	98.3	11.5	82.1	645	189
SCHAEPERKOETTER STORE, MT STERLING, MO MID-MISSOURI LIMESTONE INC-MBQ, KINGDOM CITY, MO	Lab #1339 09-29-03	4.2	47.1	12.7	36.0	87.9	2.1	55.4	390	23
S & S BEGGS LIME SERVICE-JACKSON, JACKSON, MO RUBLE ROCK & LIME INC, PATTERSON, MO	Lab #0897 07-16-03	4.7	9.7	21.1	64.5	100.9	11.8	79.6	642	188
SEHLKE TRUCK SERVICE, KEYTESVILLE, MO NORRIS AGGREGATE PRODUCTS CO - EAST, HUNTSVILLE, MO	Lab #1395 10-08-03	5.6	45.9	12.2	36.3	81.4	0.5	55.1	359	6
SOUTHEAST COOPERATIVE SERVICE, ADVANCE, MO MIDWEST AGRI-CHEMICO, CAPE GIRARDEAU, MO	Lab #0924 08-05-03	0.3	2.8	6.2	90.7	89.6	5.1	95.1	682	97
SOUTHEAST COOPERATIVE SERVICE, BERTRAND, MO FRED WEBER INC.-BLUFF CITY MINERALS CO., ALTON, IL	Lab #0891 07-15-03	0.4	6.6	8.3	84.7	91.3	2.9	91.3	667	53
SOUTHEAST COOPERATIVE SERVICE CO, DEXTER, MO ASC MINERALS PROCESSING, ALLERTON, IL	Lab #0899 07-18-03	0.2	1.4	4.4	94.0	89.9	0.6	97.0	698	12
SOUTHEAST COOPERATIVE SERVICE CO, MOREHOUSE, MO RUBLE ROCK & LIME INC, PATTERSON, MO	Lab #0919 07-28-03	4.3	11.8	22.2	61.7	102.2	12.0	78.0	637	187

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SOUTHEAST COOPERATIVE SERVICE, ORAN, MO FRED WEBER INC.-BLUFF CITY MINERALS, ALTON, IL	Lab #1044 08-12-03	0.7	3.0	3.8	92.5	90.8	1.0	95.5	694	19
SOUTHEAST COOP SERVICE, PUXICO, MO RUBLE ROCK & LIME INC, PATTERSON, MO	Lab #0881 07-03-03	7.0	11.7	20.5	60.8	101.8	11.8	76.0	619	179
STOVER MILLING, STOVER, MO FRED WEBER INC.-BLUFF CITY MINERALS CO., ALTON, IL	Lab #1043 08-18-03	0.3	5.3	4.8	89.6	92.2	3.5	93.8	692	66
UAP-MIDSOUTH, SIKESTON, MO FRED WEBER INC.-BLUFF CITY MINERALS, ALTON, IL	Lab #1749 11-20-03	0.3	3.2	5.6	90.9	90.0	2.0	95.1	684	38
THAYER PLANT FOOD, THAYER, MO HELM FERTILIZER, MEMPHIS, TN	Lab #1093 08-25-03	0.5	5.7	7.1	86.7	90.2	4.1	92.4	667	76
WEST CENTRAL AGRISERVICE, LLC, HARRISONVILLE, MO MK MINERALS INC., MANHATTAN, KS	Lab #1099 08-25-03	0.0	0.5	1.4	98.1	80.9	1.2	99.1	641	24
WEST LIME & FERTILIZER, STEELVILLE, MO RUBLE ROCK & LIME INC, PATTERSON, MO	Lab #1821 12-01-03	3.3	13.2	23.3	60.2	100.3	12.0	77.5	622	186
WOODY BOGLER LIME-ROSEBUD, ROSEBUD, MO MID-MISSOURI LIMESTONE INC-MBQ, KINGDOM CITY, MO	Lab #0946 08-06-03	6.4	47.9	10.9	34.8	95.7	2.3	53.3	408	25
WORTHINGTON AG SERVICE, WORTHINGTON, MO KELLY LIMESTONE LLC, KIRKSVILLE, MO	Lab #1472 10-16-03	1.6	19.3	4.0	75.1	90.7	1.3	82.3	597	21
YOUNGS PRODUCE, ALTON, MO FRED WEBER INC.-BLUFF CITY MINERALS CO., ALTON, IL	Lab #1687 11-06-03	0.2	3.4	5.1	91.3	90.8	2.2	95.2	692	42
ZWEERINK-AGRI SERVICES, CROCKER, MO CONCO QUARRIES INC Q US 160, WILLARD, MO	Lab #1231 09-17-03	0.0	8.5	14.2	77.3	97.3	0.2	87.9	685	4

* Does not meet minimum specification for Agricultural Liming Material.

EXAMPLES OF FINENESS FACTOR CALCULATION, ENM, AND EMgDERIVATION OF FINENESS FACTOREXAMPLE

<u>US Standard Sieve Fractions</u>	<u>Efficiency Index</u>		<u>% Found in sample</u>	<u>Fineness Components</u>
Retained on 8	0	x	<u>4.0</u>	= <u>0</u>
Pass. 8-Ret. on 40	.25	x	<u>34.0</u>	= <u>8.5</u>
Pass. 40-Ret. on 60	.60	x	<u>10.0</u>	= <u>6.0</u>
Passing 60	1.00	x	<u>52.0</u>	= <u>52.0</u>

Sum of fineness components = FINENESS FACTOR = 66.5

EFFECTIVE NEUTRALIZING MATERIALS (pounds per ton)

$$\text{Formula: ENM} = \frac{\% \text{ CCE}}{100} \times \frac{\text{FINENESS FACTOR}}{100} \times 800$$

DRY AG LIME

	<u>FINENESS FACTOR</u>						
<u>% CCE</u>	<u>100</u>	<u>90</u>	<u>80</u>	<u>70</u>	<u>60</u>	<u>50</u>	<u>40</u>
100	800	720	640	560	480	400	320
90	720	648	576	504	432	360	288
80	640	576	512	448	384	320	256
70	560	504	448	392	336	280	224
65*	520	468	416	364	312	260	208

* 65% is minimum % CCE allowed for dry lime

FLUID AG LIME

60	480	432	384
50	400	360	320
40	320	288	256
30	240	216	192
20	160	144	128
10	80	72	64

EFFECTIVE MAGNESIUM (pounds per ton)

$$\text{Formula: EMg} = \frac{\% \text{ Mg}}{100} \times \frac{\text{FINENESS FACTOR}}{100} \times 2000$$

	<u>FINENESS FACTOR</u>						
<u>% Mg</u>	<u>100</u>	<u>90</u>	<u>80</u>	<u>70</u>	<u>60</u>	<u>50</u>	<u>40</u>
13	260	234	208	182	156	130	104
11	220	198	176	154	132	110	88
9	180	162	144	126	108	90	72
7	140	126	112	98	84	70	56
5	100	90	80	80	70	60	40
3	60	54	48	42	36	30	24
1	20	18	16	14	12	10	8

**Combined Fertilizer/Ag lime Budget
FY03 income & Disbursements**

	Ag Lime Fees	Fertilizer Fees	Other	Combined
CARRYFORWARD FY02			439,057	439,057
REVENUE:				
Tonnage Fees	106,536	1,009,320		1,115,857
Audits	528	19,910		20,438
Permit Fees	21,531	98,400		119,931
Deficeincy Payments	0	10,452		10,452
Late Payment Fees	2,497	5,626		8,123
Total Revenue Available	131,093	1,143,707		1,274,800
 Total Funds Available	 131,093	 1,143,707	 439,057	 <u>1,713,857</u>
DISBURSEMENTS:				
Inspection Services				474,032
Analytical Services				329,446
Experiment Station Chem Lab Support ¹				44,370
Special Equipment Reserve ²				35,000
FY01 Continuing Proposals				33,305
FY02 Continuing Proposals				70,160
FY03 New Proposals				143,980
Total Expenditures				1,130,292
COMMITMENT:				
Contingency				68,000
Non-committed Research Funds				434,716
Annual Research Report				2,300
Balance available for Carryforward				78,549
Total Commitments				583,565
 Total Expenditures/Commitments				 <u>1,713,857</u>

Footnotes:

¹ S&W support to Experiment Station Chem Lab administrative personnel

² Per June 30, 1998 Fertilizer and Ag Lime Committee meeting minutes, \$50,000 (later changed to \$35,000) equipment reserve fund has been made available to T. Mawhinney for equipment upgrades in Analytical Services.

REPORT CONTENTS

	Page
1. Report information and tonnage summary	2
2. Table 1-Registered Producers and samples	3
3. Table 2-Distributors and samples	21
4. ENM & EMg Calculations	26
5. Combined Ag Lime/Fertilizer Budget FY03	27

This report also available on the web at:

[HTTP://aes.missouri.edu/pfcs](http://aes.missouri.edu/pfcs)

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Control Services
University of Missouri-Columbia
Columbia, MO 65211-8080

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