

**Missouri
Agricultural Liming
Materials Report**

January 1 to June 30, 2004

Agricultural Experiment Station

University of Missouri-Columbia

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-five deficient samples are reported, twenty-three for excessive coarseness and two 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
2004	629,642	1,000,000*	1,629,642*

* PRELIMINARY ESTIMATE

TABLE 1

AGRICULTURAL LIMING MATERIALS SAMPLED FROM
JANUARY 1 THROUGH JUNE 30, 2004

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 #0274	03-15-04	0.3	42.8	8.1	48.8	86.6	9.9	64.4	446	127
Lab #0495	04-27-04	0.2	46.1	7.9	45.8	86.3	10.5	62.1	428	130
Lab #0813	06-11-04	0.1	37.6	6.2	56.1	81.3	9.9	69.2	450	137
ADRIAN QUARRY LLC, ADRIAN, MO										
Stockpile #2										
Lab #0388	04-13-04	3.3	53.3	9.8	33.6	81.8	0.6	52.8	346	6
Lab #0523	05-04-04	6.4	57.5	8.3	27.8	86.1	0.6	47.2	325	6
AIRGAS - MID AMERICA, MOUNTAIN GROVE, MO										
Stockpile #1										
Lab #0345	03-30-04	0.8	2.1	0.8	96.3	109.5	0.1	97.3	852	2
Lab #0633	05-19-04	7.4	14.1	3.2	75.3	108.3	0.1	80.7	700	2
ALBY QUARRY, CARLINVILLE, IL										
ALLEN QUARRIES INC, LOCKWOOD, MO										
Stockpile #1										
Lab #0122	02-17-04	2.5	46.5	14.2	36.8	94.5	0.4	56.9	431	5
Lab #0736	06-01-04	4.1	50.0	12.4	33.5	92.0	0.5	53.4	393	5
APAC-MISSOURI, INC. - BOONVILLE, COLUMBIA, MO										
Stockpile #1										
Lab #0093	02-18-04	1.6	48.8	13.9	35.7	94.5	0.1	56.2	425	1
Lab #0228	03-15-04	2.5	49.1	13.4	35.0	93.8	0.1	55.3	415	1
Lab #0378	04-14-04	2.1	49.6	13.0	35.3	96.3	0.2	55.5	428	2
Lab #0565	05-11-04	2.6	47.8	13.1	36.5	94.7	0.2	56.3	427	2
Lab #0772	06-09-04	0.6	45.6	15.8	38.0	95.9	0.1	58.9	452	1
APAC-MISSOURI, INC. - LANAGAN, SPRINGFIELD, MO										
Stockpile #1										
Lab #0182	02-23-04	1.8	41.0	13.5	43.7	89.0	0.8	62.1	442	10
Lab #0392	04-12-04	1.2	44.1	13.7	41.0	89.1	0.7	60.2	429	8
Lab #0635	05-20-04	0.7	44.8	16.4	38.1	90.3	0.8	59.1	427	9
APAC-MISSOURI, INC. - LINN CREEK, LINN CREEK, MO										
Stockpile #2										
Lab #0292	03-23-04	0.8	44.4	15.3	39.5	78.7	9.5	59.8	376	114
Lab #0386	04-12-04	0.7	40.9	15.3	43.1	85.9	10.2	62.5	430	128
Lab #0530	05-06-04	0.9	43.6	15.7	39.8	89.3	10.7	60.1	429	129
APAC-MISSOURI, INC. - COLUMBIA, SPRINGFIELD, MO										
Stockpile #2										
Lab #0271	03-15-04	2.0	33.9	9.9	54.2	91.5	10.2	68.6	502	140
Lab #0498	04-27-04	3.6	31.6	10.2	54.6	91.1	10.7	68.6	500	147
APAC-MISSOURI, INC. - MARSHALL, MARSHALL, MO										
Stockpile #1										
Lab #0110	02-19-04	2.1	58.8	12.6	26.5	96.5	0.3	48.8	376	3
Lab #0235	03-18-04	3.5	54.6	10.5	31.4	91.9	0.3	51.4	378	3
Lab #0424	04-20-04	0.8	55.0	11.7	32.5	94.6	0.3	53.3	403	3
Lab #0627	05-18-04	0.3	42.0	12.5	45.2	85.7	2.5	63.2	433	32
Lab #0802	06-16-04	3.7	55.6	12.4	28.3	95.8	0.2	49.6	380	2
APAC-MISSOURI, INC. - NETTLETON, COLUMBIA, MO										

* Does not meet minimum specification for Agricultural Liming Material.

TABLE 1
AGRICULTURAL LIMING MATERIALS SAMPLED FROM
JANUARY 1 THROUGH JUNE 30, 2004

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
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 #0293	03-23-04	1.1	44.5	15.0	39.4	77.4	9.3	59.5	369	111
Lab #0387	04-12-04	0.9	43.9	15.7	39.5	73.3	8.9	59.9	351	107
Lab #0531	05-06-04	2.1	50.6	14.6	32.7	82.2	9.8	54.1	356	106
APAC-MISSOURI INC. - ROARK CREEK, SPRINGFIELD, MO										
Stockpile #1										
Lab #0273	03-15-04	1.4	42.8	9.8	46.0	92.0	10.5	62.6	461	131
Lab #0500	04-27-04	2.3	43.3	8.9	45.5	91.6	10.5	61.7	452	129
Lab #0812	06-11-04	0.7	41.7	9.7	47.9	92.1	11.0	64.1	473	141
ARKANSAS LIME COMPANY, INC., BATESVILLE, AR										
ASC MINERALS PROCESSING, ALLERTON, IL										
ASH GROVE AGGREGATES INC-APPLETON, BUTLER, MO										
Stockpile #1										
Lab #0202	03-08-04	0.3	49.1	11.3	39.3	83.8	1.0	58.4	391	12
Lab #0433	04-21-04	0.4	51.9	10.9	36.8	83.1	1.0	56.3	374	11
Lab #0733	06-03-04	0.0	50.8	13.7	35.5	82.4	0.8	56.4	372	9
ASH GROVE AGGREGATES-ELDORADO SPRIN, BUTLER, MO										
ASH GROVE AGGREGATES-FAIR GROVE, BUTLER, MO										
Stockpile #1										
Lab #0124	02-18-04	0.6	51.8	7.7	39.9	90.5	10.8	57.5	416	124
ASH GROVE AGGREGATES INC-BUTLER, BUTLER, MO										
Stockpile #1										
Lab #0258	03-17-04	1.7	56.0	14.8	27.5	82.5	0.6	50.4	333	6
Lab #0668	05-20-04	3.5	56.6	12.9	27.0	85.8	0.6	48.9	336	6
Stockpile #2										
Lab #0259	03-17-04	0.1	51.5	12.8	35.6	83.2	0.7	56.2	374	8
Lab #0342	03-30-04	0.7	48.7	13.3	37.3	83.2	0.8	57.5	382	9
Lab #0669	05-20-04	1.6	56.3	11.7	30.4	85.2	0.7	51.5	351	7
Stockpile #3										
Lab #0260	03-17-04	3.0	53.7	10.2	33.1	85.6	0.7	52.6	361	7
Lab #0670	05-20-04	3.1	52.7	10.4	33.8	86.0	0.8	53.2	366	9
Lab #0679	05-25-04	3.6	45.4	9.0	42.0	90.2	1.2	58.8	424	14
ASH GROVE AGGREGATES INC-RICHHILL, BUTLER, MO										
Stockpile #1										
Lab #0037	02-04-04	0.1	37.9	24.4	37.6	82.6	0.7	61.7	408	9
Lab #0264	03-17-04	0.1	44.1	12.3	43.5	73.8	0.8	61.9	365	10
ASH GROVE AGGREGATES INC-LACYGNE, BUTLER, MO										
Stockpile #2										
Lab #0525	05-04-04	7.4	46.9	9.8	35.9	82.6	1.2	53.5	354	13
Stockpile #3										
Lab #0261	03-17-04	2.6	43.7	8.6	45.1	88.1	1.6	61.2	431	20
Lab #0526	05-04-04	2.3	42.6	9.9	45.2	84.0	1.1	61.8	415	14
ASH GROVE AGGREGATES INC-MARSHFIELD, BUTLER, MO										
Stockpile #3										
Lab #0130	02-19-04	0.7	49.0	11.2	39.1	87.9	10.6	58.1	408	123
Lab #0738	06-02-04	0.7	49.3	12.9	37.1	88.7	10.7	57.2	406	122

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TABLE 1

AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JANUARY 1 THROUGH JUNE 30, 2004

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-MONTEVALLO, BUTLER, MO										
Stockpile #1										
Lab #0265	03-18-04	4.5	43.3	10.4	41.8	86.6	1.0	58.9	408	12
Lab #0482	04-29-04	4.5	44.5	12.7	38.3	85.6	0.9	57.0	391	10
Lab #0672	05-24-04	4.5	45.1	11.9	38.5	84.9	1.0	56.9	387	11
ASH GROVE AGGREGATES INC-OSCEOLA, BUTLER, MO										
Stockpile #1										
Lab #0254	03-16-04	2.5	45.9	9.5	42.1	83.8	0.3	59.3	397	4
Lab #0475	04-28-04	2.7	46.4	10.5	40.4	86.8	0.5	58.3	405	6
Lab #0617	05-14-04	3.6	47.3	11.5	37.6	92.1	0.6	56.3	415	7
ASH GROVE AGGREGATES INC-PITTSBURG, BUTLER, MO										
Stockpile #1										
Lab #0257	03-16-04	1.4	43.3	12.8	42.5	92.1	0.2	61.0	449	2
Lab #0527	05-05-04	2.1	47.0	13.2	37.7	92.8	0.2	57.4	426	2
ASH GROVE AGGREGATES INC-FT SCOTT, BUTLER, MO										
Stockpile #3										
Lab #0788	06-14-04	3.3	42.3	9.4	45.0	87.8	1.2	61.2	430	15
ASH GROVE AGGREGATES INC.-STOCKTON, BUTLER, MO										
Stockpile #1										
Lab #0137	02-24-04	2.2	45.4	13.4	39.0	92.2	0.2	58.4	431	2
Lab #0243	03-18-04	2.5	45.9	13.5	38.1	93.1	0.2	57.7	430	2
Lab #0476	04-29-04	2.4	42.1	13.7	41.8	92.3	0.1	60.5	447	1
Lab #0673	05-24-04	3.3	46.0	13.3	37.4	90.2	0.2	56.9	410	2
Stockpile #2										
Lab #0138	02-24-04	3.8	49.5	12.9	33.8	94.9	0.2	53.9	409	2
Lab #0244	03-18-04	5.5	52.0	11.6	30.9	95.4	0.2	50.9	388	2
Lab #0477	04-29-04	3.4	50.2	13.6	32.8	94.9	0.1	53.5	406	1
Lab #0674	05-24-04	9.2	44.0	12.4	34.4	97.4	0.1	52.8	412	1
Stockpile #3										
Lab #0139	02-24-04	3.0	48.4	13.3	35.3	91.8	0.2	55.4	407	2
Lab #0245	03-18-04	3.0	47.1	13.6	36.3	92.0	0.3	56.2	414	3
Lab #0478	04-29-04	2.9	48.5	13.4	35.2	90.5	0.2	55.4	401	2
Lab #0675	05-24-04	4.0	50.7	13.2	32.1	94.3	0.1	52.7	398	1
Stockpile #4										
Lab #0140	02-24-04	3.0	46.2	12.5	38.3	93.9	0.1	57.4	431	1
Lab #0246	03-18-04	2.3	48.7	11.7	37.3	93.5	0.2	56.5	423	2
Lab #0479	04-29-04	3.9	45.7	13.4	37.0	95.5	0.1	56.5	431	1
Lab #0676	05-24-04	2.9	48.2	14.7	34.2	88.2	0.1	55.1	389	1
ASH GROVE AGGREGATES INC-WHEATLAND, BUTLER, MO										
Stockpile #2										
Lab #0255	03-16-04	8.0	48.9	9.9	33.2	94.4	0.2	51.4	388	2
Lab #0529	05-05-04	4.6	49.4	10.3	35.7	97.8	0.2	54.2	424	2
ASH GROVE AGGREGATES INC-FT SCOTT E, BUTLER, MO										
ASH GROVE AGGREGATES INC-BOLIVAR, BUTLER, MO										
Stockpile #1										
Lab #0297	03-24-04	1.4	47.6	11.1	39.9	96.3	1.0	58.5	450	12
Lab #0612	05-12-04	0.6	41.4	13.2	44.8	97.7	0.2	63.1	493	3
Lab #0727	06-01-04	1.3	49.8	10.0	38.9	88.2	0.2	57.4	405	2

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TABLE 1

AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JANUARY 1 THROUGH JUNE 30, 2004

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-BOLIVAR, BUTLER, MO (Continued)										
Stockpile #2										
Lab #0613	05-12-04	1.4	51.8	11.0	35.8	96.7	0.2	55.4	428	2
Lab #0728	06-01-04	0.9	49.7	11.4	38.0	93.3	0.1	57.3	427	1
ASH GROVE AGGREGATES INC-BUFFALO, BUTLER, MO										
Stockpile #1										
Lab #0071	02-12-04	0.4	45.4	10.9	43.3	93.3	11.2	61.2	457	137
Lab #0340	03-29-04	1.2	46.8	10.0	42.0	89.1	10.5	59.7	426	125
Lab #0431	04-20-04	1.3	47.8	9.8	41.1	92.7	10.8	58.9	437	127
Lab #0666	05-19-04	0.8	43.8	9.3	46.1	89.3	10.7	62.6	447	134
Stockpile #2										
Lab #0072	02-12-04	0.9	49.7	8.4	41.0	88.6	10.6	58.5	414	124
Lab #0341	03-29-04	0.6	41.8	12.0	45.6	92.4	11.0	63.3	468	139
Lab #0432	04-20-04	0.5	45.6	10.3	43.6	90.5	10.7	61.2	443	131
Lab #0667	05-19-04	0.7	44.6	11.5	43.2	91.5	10.9	61.3	448	134
BAILEY QUARRIES INC-CHESAPEAKE Q., MT VERNON, MO										
Stockpile #4										
Lab #0121	02-16-04	2.3	43.1	9.3	45.3	92.2	11.0	61.7	455	136
Lab #0368	04-05-04	2.0	43.9	9.3	44.8	94.4	11.2	61.4	463	137
Lab #0540	05-05-04	0.8	44.5	11.0	43.7	88.9	10.5	61.4	437	129
BAILEY QUARRIES INC-JANE, JANE, MO										
Stockpile #2										
Lab #0181	02-23-04	6.5	48.4	7.1	38.0	93.3	11.2	54.4	406	122
Lab #0185	02-25-04	0.1	43.3	9.0	47.6	94.3	11.2	63.8	481	143
Lab #0391	04-12-04	0.4	46.5	9.4	43.7	90.0	11.0	61.0	439	134
Lab #0634	05-20-04	0.5	44.9	9.0	45.6	94.8	11.2	62.2	472	139
BAILEY QUARRIES, INC.-MADRY QUARRY, VERONA, MO										
Stockpile #2										
Lab #0213	03-09-04	1.1	53.1	11.4	34.4	82.3	1.0	54.5	359	11
Lab #0396	04-14-04	0.6	54.4	11.3	33.7	87.8	0.8	54.1	380	9
Lab #0605	05-10-04	2.9	52.1	11.2	33.8	87.5	1.1	53.5	375	12
Stockpile #3										
Lab #0606	05-10-04	5.2	46.5	9.0	39.3	85.5	9.3	56.3	385	105
BAILEY QUARRIES INC-STOCKTON, STOCKTON, MO										
Stockpile #1										
Lab #0141	02-24-04	0.2	46.6	16.1	37.1	95.7	0.1	58.4	447	1
Lab #0266	03-18-04	0.4	44.0	15.4	40.2	95.4	0.1	60.4	461	1
Lab #0480	04-29-04	1.4	42.5	16.9	39.2	96.1	0.1	60.0	461	1
Lab #0677	05-24-04	3.4	47.4	13.9	35.3	95.6	0.1	55.5	424	1
Stockpile #2										
Lab #0142	02-24-04	1.2	43.5	15.2	40.1	93.6	0.1	60.1	450	1
Lab #0242	03-18-04	2.4	47.1	14.3	36.2	94.9	0.2	56.6	429	2
Lab #0481	04-29-04	1.7	44.2	15.3	38.8	92.5	0.1	59.0	437	1
Lab #0678	05-24-04	1.3	43.2	15.0	40.5	92.9	0.1	60.3	448	1
BARBER & SONS AGGREGATES, LEE'S SUMMIT, MO										
Stockpile #1										
Lab #0105	02-20-04	8.3	51.3	7.4	33.0	80.7	0.4	50.3	325	4
Lab #0232	03-16-04	4.4	53.5	7.6	34.5	78.7	0.4	52.4	330	4
Lab #0385	04-12-04	7.3	53.2	8.0	31.5	82.7	0.5	49.6	328	5

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TABLE 1

AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JANUARY 1 THROUGH JUNE 30, 2004

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
BARBER & SONS AGGREGATES, LEE'S SUMMIT, MO (Continued)										
Lab #0580	05-13-04	5.6	52.3	9.1	33.0	81.8	1.9	51.5	337	20
Lab #0724	06-02-04	3.0	53.2	9.5	34.3	81.5	1.6	53.3	348	17
BARRETT MATERIALS INC, NEW HAVEN, MO										
Stockpile #2										
Lab #0075	02-10-04	0.3	44.2	9.4	46.1	77.9	9.5	62.8	391	119
Lab #0224	03-09-04	0.8	52.7	8.0	38.5	82.0	9.6	56.5	370	108
Lab #0546	05-06-04	0.1	35.7	11.9	52.3	86.8	10.2	68.4	475	139
BASE ROCK MINERALS, BONNE TERRE, MO										
Stockpile #1										
Lab #0407	04-14-04	0.3	27.4	14.6	57.7	91.4	10.8	73.3	536	158
JAMES ELROD TRUCK SERVICE, BELLE, MO										
Stockpile #1										
Lab #0198	03-01-04	0.2	37.3	13.1	49.4	94.2	2.7	66.6	502	36
Lab #0441	04-20-04	0.1	36.2	12.1	51.6	91.2	3.3	67.9	495	45
Lab #0784	06-10-04	1.1	8.4	12.0	78.5	98.4	0.2	87.8	691	4
BOONE QUARRIES INC - WEST, COLUMBIA, MO										
Stockpile #1										
Lab #0048	02-09-04	1.0	35.7	9.1	54.2	92.7	2.7	68.6	509	37
Lab #0287	03-23-04	0.0	39.7	15.8	44.5	97.4	0.5	63.9	498	6
Lab #0418	04-19-04	0.3	33.7	10.7	55.3	93.7	3.1	70.1	526	43
Lab #0641	05-21-04	0.2	38.0	14.1	47.7	96.7	1.5	65.7	508	20
Stockpile #2										
Lab #0049	02-09-04	0.0	40.3	14.4	45.3	99.4	1.0	64.0	509	13
Lab #0286	03-23-04	0.1	34.1	13.0	52.8	90.5	3.5	69.1	500	48
Lab #0417	04-19-04	0.1	35.5	15.4	49.0	96.7	1.7	67.1	519	23
Lab #0640	05-21-04	0.1	33.4	13.9	52.6	94.1	3.4	69.3	522	47
BOONE QUARRIES - EAST, COLUMBIA, MO										
Stockpile #1										
Lab #0047	02-09-04	3.7	53.8	6.8	35.7	91.3	8.3	53.2	389	88
Lab #0285	03-23-04	9.0	44.3	8.1	38.6	94.1	4.2	54.5	411	46
Lab #0419	04-19-04	8.0	39.3	8.5	44.2	92.3	3.7	59.1	437	44
Lab #0642	05-21-04	11.7*	44.3	10.2	33.8	96.4	1.3	51.0	0	0
BROMLEY QUARRY & ASPHALT INC, ATCHISON, KS										
Stockpile #1										
Lab #0057	02-10-04	0.8	49.1	10.9	39.2	76.0	1.9	58.0	353	22
Lab #0438	04-20-04	0.9	50.8	9.7	38.6	77.4	1.8	57.1	354	21
Lab #0694	05-25-04	1.0	52.0	10.2	36.8	77.4	1.8	55.9	346	20
Lab #0810	06-15-04	0.6	51.6	10.0	37.8	77.0	1.9	56.7	349	22
BURFORDVILLE STONE, LLC, WHITEWATER, MO										
Stockpile #1										
Lab #0009	01-06-04	8.8	57.4	6.2	27.6	88.8	10.4	45.7	324	95
Lab #0553	05-04-04	5.6	53.3	7.0	34.1	84.9	9.8	51.6	351	101
Lab #0832	06-17-04	2.9	53.7	8.3	35.1	84.4	10.0	53.5	361	107
CALCIUM PRODUCTS, INC., GILMORE CITY, IA										
CAPITAL QUARRIES INC-HIGH HILL, HIGH HILL, MO										
Stockpile #1										
Lab #0032	01-26-04	0.9	44.9	9.9	44.3	90.8	5.1	61.5	446	63
Lab #0074	02-09-04	0.9	46.2	11.0	41.9	92.0	6.3	60.1	442	76

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AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JANUARY 1 THROUGH JUNE 30, 2004

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 (Continued)										
Stockpile #1										
Lab #0180	02-23-04	2.6	49.6	9.3	38.5	91.7	4.7	56.5	414	53
Lab #0848	04-19-04	0.2	37.8	12.8	49.2	89.6	5.1	66.3	475	68
Lab #0587	05-12-04	1.5	43.5	10.5	44.5	91.6	5.8	61.7	452	72
CAPITAL QUARRIES, INC-STADIUM WEST, JEFFERSON CITY, MO										
Stockpile #2										
Lab #0197	03-01-04	1.4	43.4	7.3	47.9	83.8	10.3	63.1	423	130
Lab #0582	05-10-04	1.1	37.1	11.4	50.4	87.1	10.4	66.5	463	138
Lab #0743	06-03-04	1.5	43.2	10.7	44.6	83.9	10.3	61.8	415	127
CAPITAL QUARRIES INC-ROLLA Q #4, JEFFERSON CITY, MO										
Stockpile #1										
Lab #0403	04-13-04	10.7*	46.1	8.7	34.5	84.0	10.1	51.2	0	0
Lab #0493	04-29-04	11.4*	46.1	8.5	34.0	85.1	10.2	50.6	0	0
Lab #0819	06-14-04	12.5*	46.9	8.5	32.1	83.8	10.1	48.9	0	0
Stockpile #2										
Lab #0116	02-19-04	0.0	4.2	7.8	88.0	77.5	9.2	93.7	581	172
CAPITAL QUARRIES INC-CALIFORNIA Q#5, JEFFERSON CITY, MO										
Stockpile #1										
Lab #0211	03-10-04	1.1	46.7	10.6	41.6	86.5	3.3	59.6	413	39
Lab #0420	04-19-04	1.8	46.8	12.2	39.2	88.3	2.5	58.2	411	29
Lab #0624	05-17-04	1.0	45.1	12.1	41.8	89.9	2.9	60.3	434	35
CAPITAL QUARRIES INC-SULLIVAN, BOURBON, MO										
Stockpile #1										
Lab #0077	02-11-04	6.8	40.6	15.5	37.1	101.3	12.2	56.6	458	138
Lab #0079	02-12-04	5.3	38.4	16.6	39.7	101.6	12.2	59.3	482	145
Lab #0305	03-24-04	9.9	45.9	10.5	33.7	98.1	11.3	51.5	404	116
Lab #0585	05-12-04	7.9	46.3	11.7	34.1	96.7	11.4	52.7	408	120
CARROLL COUNTY STONE, INC., REPUBLIC, MO										
Stockpile #1										
Lab #0070	02-13-04	0.5	39.0	11.3	49.2	89.4	10.7	65.7	470	141
Lab #0318	03-26-04	0.8	40.7	10.7	47.8	89.7	10.4	64.4	462	134
Lab #0439	04-23-04	1.3	39.7	10.4	48.6	88.8	10.4	64.8	460	135
CARTHAGE CRUSHED LIMESTONE, CARTHAGE, MO										
Stockpile #1										
Lab #0068	02-10-04	3.0	61.0	13.4	22.6	96.6	0.1	45.9	355	1
Lab #0395	04-13-04	1.9	14.4	4.8	78.9	96.1	0.2	85.4	656	3
CENTRAL STONE COMPANY - HUNTINGTON, HANNIBAL, MO										
Stockpile #1										
Lab #0229	03-15-04	7.2	28.2	12.8	51.8	93.9	0.3	66.5	500	4
Lab #0453	04-26-04	5.3	33.0	10.4	51.3	95.1	0.3	65.8	501	4
Lab #0695	05-26-04	8.2	34.6	9.9	47.3	93.3	0.3	61.9	462	4
Stockpile #2										
Lab #0084	02-13-04	1.6	29.1	12.0	57.3	89.7	0.6	71.8	515	9
Lab #0454	04-26-04	0.5	33.2	16.1	50.2	93.3	0.8	68.2	509	11
Lab #0696	05-26-04	1.3	27.7	13.8	57.2	88.8	0.7	72.4	514	10
Stockpile #3										
Lab #0085	02-13-04	5.7	31.6	12.2	50.5	97.2	1.8	65.7	511	24
Lab #0230	03-15-04	1.0	29.9	13.1	56.0	94.8	1.7	71.3	541	24

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JANUARY 1 THROUGH JUNE 30, 2004

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
CENTRAL STONE COMPANY - HUNTINGTON, HANNIBAL, MO (Continued)										
Stockpile #3										
Lab #0455	04-26-04	0.8	29.8	13.0	56.4	93.0	1.3	71.7	533	19
Lab #0697	05-26-04	1.1	29.8	12.8	56.3	96.7	1.8	71.4	553	26
CENTRAL STONE COMPANY-ANTONIA, HANNIBAL, MO										
Stockpile #1										
Lab #0739	06-01-04	37.7*	32.6	4.9	24.8	94.7	1.5	35.9	0	0
Stockpile #2										
Lab #0740	06-01-04	40.5*	34.4	3.8	21.3	96.8	1.2	32.2	0	0
CENTRAL STONE COMPANY - BETHEL, BETHEL, MO										
Stockpile #1										
Lab #0091	02-16-04	5.8	44.1	9.2	40.9	93.3	1.4	57.4	429	16
Lab #0277	03-22-04	3.4	44.9	10.4	41.3	93.4	1.2	58.8	439	14
Lab #0412	04-16-04	4.2	41.4	10.0	44.4	92.4	1.2	60.8	449	15
Lab #0568	05-06-04	4.6	45.3	8.8	41.3	94.0	1.5	57.9	435	17
CENTRAL STONE CO - FORT BELLE - #31, FLORISSANT, MO										
Stockpile #1										
Lab #0150	02-26-04	0.0	0.4	4.2	95.4	85.3	2.1	98.0	669	41
Lab #0338	04-01-04	0.0	0.7	6.2	93.1	83.9	3.7	97.0	651	72
Lab #0639	05-20-04	0.1	1.3	5.9	92.7	86.2	3.3	96.6	666	64
Lab #0787	06-15-04	0.2	0.7	4.5	94.6	82.9	2.8	97.5	646	55
CENTRAL STONE COMPANY - PARIS, PARIS, MO										
Stockpile #1										
Lab #0042	02-06-04	3.7	48.1	12.1	36.1	90.9	0.3	55.4	403	3
Lab #0196	03-03-04	3.5	48.9	11.9	35.7	89.7	0.6	55.1	395	7
Lab #0512	04-29-04	3.7	50.7	11.7	33.9	90.3	0.4	53.6	387	4
Lab #0699	05-28-04	3.0	47.1	13.1	36.8	91.2	0.4	56.4	412	5
CENTRAL STONE COMPANY - CURRYVILLE, CURRYVILLE, MO										
CENTRAL STONE COMPANY - PERRY, HANNIBAL, MO										
Stockpile #1										
Lab #0452	04-26-04	5.9	43.5	8.9	41.7	85.5	1.6	57.9	396	19
Lab #0637	05-17-04	5.6	40.6	10.1	43.7	85.2	1.9	59.9	408	23
CENTRAL STONE COMPANY - EWING, HANNIBAL, MO										
Stockpile #1										
Lab #0416	04-16-04	5.3	35.1	9.8	49.8	84.9	0.5	64.5	438	6
Lab #0636	05-17-04	7.6	36.4	9.7	46.3	82.9	0.9	61.2	406	11
CENTRAL STONE COMPANY-ST. FRANCOIS, HANNIBAL, MO										
CENTRAL STONE COMPANY - TAYLOR, TAYLOR, MO										
Stockpile #1										
Lab #0086	02-13-04	5.6	47.8	11.6	35.0	92.0	0.3	53.9	397	3
Lab #0231	03-15-04	5.5	50.4	9.7	34.4	88.5	0.4	52.8	374	4
Lab #0456	04-26-04	7.3	46.5	11.1	35.1	88.7	0.3	53.4	379	3
Lab #0698	05-26-04	14.4*	46.7	10.5	28.4	91.0	0.6	46.4	0	0
CLEVER STONE CO, CLEVER, MO										
Stockpile #1										
Lab #0317	03-24-04	0.1	50.7	12.7	36.5	95.0	0.2	56.8	432	2
Lab #0816	06-15-04	0.4	52.2	12.5	34.9	95.2	0.2	55.5	422	2

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JANUARY 1 THROUGH JUNE 30, 2004

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
COLONIAL LIMESTONE INC-PRINCETON, MILAN, MO										
Stockpile #1										
Lab #0015	01-13-04	0.3	45.4	12.4	41.9	87.6	0.3	60.7	425	4
Lab #0106	02-16-04	0.2	47.7	11.2	40.9	90.7	0.3	59.5	432	4
Lab #0267	03-16-04	0.1	47.1	12.6	40.2	90.8	0.3	59.5	432	4
Lab #0376	04-12-04	0.0	51.5	11.8	36.7	89.3	0.4	56.7	405	5
Lab #0597	05-12-04	0.5	44.6	11.5	43.4	78.2	0.3	61.5	384	4
Lab #0767	06-07-04	12.2*	47.0	9.4	31.4	90.6	0.3	48.8	0	0
CONCO QUARRIES, SPRINGFIELD, MO										
Stockpile #1										
Lab #0128	02-18-04	0.0	13.1	16.9	70.0	95.7	0.2	83.4	639	3
Lab #0538	05-03-04	1.2	13.8	15.2	69.8	98.5	0.2	82.4	649	3
Lab #0608	05-11-04	0.2	9.6	16.4	73.8	97.9	0.3	86.0	674	5
CONCO QUARRIES INC Q US 160, WILLARD, MO										
Stockpile #1										
Lab #0123	02-18-04	0.0	13.7	16.7	69.6	97.5	0.2	83.0	648	3
Lab #0533	05-03-04	0.0	9.0	14.2	76.8	99.0	0.2	87.6	694	4
Stockpile #4										
Lab #0152	02-18-04	0.1	11.8	15.6	72.5	98.1	0.2	84.8	666	3
Lab #0534	05-03-04	0.1	8.4	14.2	77.3	99.6	0.2	87.9	701	4
COUNTY LINE QUARRY, WELLSVILLE, MO										
Stockpile #1										
Lab #0366	04-08-04	2.0	45.4	10.4	42.2	93.7	3.0	59.8	448	36
Lab #0520	05-05-04	5.2	47.5	8.2	39.1	90.1	3.8	55.9	403	42
Lab #0761	06-07-04	4.6	46.2	10.2	39.0	90.6	3.4	56.7	411	39
CRAWFORD LIME & MATERIAL CO, CUBA, MO										
Stockpile #1										
Lab #0440	04-20-04	3.9	46.3	8.0	41.8	87.0	10.7	58.2	405	124
Lab #0584	05-12-04	5.3	45.0	7.9	41.8	90.1	10.7	57.8	417	124
CRIDER BROTHERS LIME CO, EMINENCE, MO										
Stockpile #1										
Lab #0559	05-05-04	13.6*	51.8	9.9	24.7	93.7	10.6	43.6	0	0
Stockpile #2										
Lab #0683	05-24-04	6.9	50.9	11.1	31.1	98.3	10.8	50.5	397	109
CRIDER BROS LIME CO. INC.-VAN BUREN, EMINENCE, MO										
Stockpile #1										
Lab #0558	05-05-04	5.0	43.6	11.6	39.8	88.5	10.2	57.7	408	118
Lab #0684	05-24-04	4.2	43.8	12.3	39.7	88.6	10.5	58.0	411	122
DOSS & HARPER STONE CO., HOUSTON, MO										
Stockpile #1										
Lab #0215	03-10-04	0.1	55.7	11.6	32.6	95.5	11.5	53.5	409	123
Lab #0705	05-26-04	0.1	43.5	16.3	40.1	95.8	11.2	60.8	466	136
DOSS & HARPER STONE CO, WEST PLAINS, MO										
Stockpile #1										
Lab #0216	03-10-04	0.8	46.1	9.2	43.9	83.1	10.1	60.9	405	123
Lab #0344	03-29-04	0.1	44.5	8.5	46.9	85.2	10.0	63.1	430	126
Lab #0706	05-26-04	0.4	41.9	9.5	48.2	81.7	9.5	64.4	421	122

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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
EVERETT QUARRIES #1-LATHROP, PLATTSBURG, MO										
Stockpile #2										
Lab #0039	02-04-04	0.0	48.8	10.9	40.3	86.4	1.0	59.0	408	12
Lab #0370	04-08-04	0.1	49.1	12.9	37.9	85.6	0.8	57.9	397	9
Lab #0650	05-21-04	0.1	47.9	13.0	39.0	86.4	1.0	58.8	406	12
Lab #0806	06-11-04	0.1	47.7	12.7	39.5	87.4	1.1	59.0	413	13
EVERETT QUARRIES #6-KING, PLATTSBURG, MO										
Stockpile #1										
Lab #0051	02-04-04	0.1	46.0	11.5	42.4	77.6	2.0	60.8	377	24
Lab #0321	03-22-04	0.2	38.0	12.0	49.8	77.8	1.8	66.5	414	24
Lab #0377	04-14-04	0.1	48.4	11.0	40.5	78.4	1.8	59.2	371	21
Lab #0509	05-05-04	2.3	49.0	9.9	38.8	88.4	1.1	57.0	403	13
Lab #0795	06-14-04	1.9	48.6	10.8	38.7	89.3	1.1	57.3	410	13
EVERETT QUARRIES #54-GOWER, PLATTSBURG, MO										
Stockpile #3										
Lab #0059	02-10-04	4.1	50.6	9.4	35.9	81.2	0.9	54.2	352	10
Lab #0300	03-22-04	5.3	52.3	8.8	33.6	81.5	0.9	52.0	339	9
Lab #0651	05-21-04	3.6	52.3	9.8	34.3	83.6	0.9	53.3	356	10
Lab #0809	06-15-04	5.1	54.2	9.7	31.0	82.0	1.1	50.4	330	11
EVERETT QUARRIES #57, PLATTSBURG, MO										
Stockpile #1										
Lab #0133	02-19-04	6.0	52.3	9.0	32.7	71.1	2.3	51.2	291	24
Lab #0298	03-19-04	4.9	50.2	9.0	35.9	71.8	2.1	53.9	309	23
Lab #0649	05-20-04	5.7	51.7	10.5	32.1	70.0	2.2	51.3	287	23
Lab #0807	06-14-04	4.9	51.1	9.7	34.3	70.7	2.2	52.9	299	23
EVERETT QUARRIES #59-STANBERRY, PLATTSBURG, MO										
Stockpile #1										
Lab #0169	02-15-04	5.0	51.5	9.7	33.8	77.5	2.1	52.5	325	22
Lab #0299	03-19-04	3.8	49.5	9.3	37.4	77.1	1.7	55.4	341	19
Lab #0652	05-21-04	3.5	49.2	9.6	37.7	78.6	1.6	55.8	351	18
Lab #0808	06-15-04	17.6*	36.7	8.1	37.6	71.6	2.0	51.6	0	0
FALL VALLEY STONE, INC., MT VERNON, MO										
Stockpile #1										
Lab #0120	02-16-04	0.2	35.3	11.6	52.9	99.7	11.8	68.7	548	162
Lab #0367	04-05-04	0.0	38.7	16.0	45.3	103.5	12.0	64.6	535	155
Lab #0539	05-05-04	0.6	35.9	12.1	51.4	99.5	11.7	67.6	538	158
FARMERS LITTER & LIME, SIKESTON, MO										
Stockpile #1										
Lab #0747	06-07-04	0.8	2.4	1.7	95.1	72.2	0.8	96.7	559	15
FISCHER QUARRIES LLC, HUGHESVILLE, MO										
Stockpile #1										
Lab #0031	01-22-04	7.3	47.7	11.4	33.6	92.0	0.2	52.4	385	2
Stockpile #2										
Lab #0019	01-12-04	7.1	48.2	11.1	33.6	96.8	1.0	52.3	405	10
Lab #0023	01-15-04	8.3	46.9	9.0	35.8	97.2	1.2	52.9	412	13
Lab #0030	01-22-04	10.9*	46.3	9.5	33.3	97.5	1.3	50.6	0	0
Lab #0112	02-19-04	8.3	46.4	11.0	34.3	97.3	1.4	52.5	409	15
Lab #0206	03-09-04	5.7	46.1	11.8	36.4	97.2	1.3	55.0	428	14
Lab #0209	03-11-04	10.2*	46.8	9.6	33.4	96.9	1.1	50.9	0	0

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JANUARY 1 THROUGH JUNE 30, 2004

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
FISCHER QUARRIES LLC, HUGHESVILLE, MO (Continued)										
Stockpile #2										
Lab #0311	03-25-04	4.8	47.8	11.6	35.8	97.5	1.0	54.7	427	11
Lab #0327	03-29-04	4.8	47.9	11.5	35.8	97.8	1.0	54.7	428	11
Lab #0372	04-09-04	4.3	47.1	11.6	37.0	97.1	1.1	55.7	433	12
Lab #0629	05-18-04	9.3	47.0	9.4	34.3	98.6	1.0	51.7	408	10
Stockpile #3										
Lab #0205	03-09-04	7.5	55.9	11.6	25.0	97.9	1.1	45.9	360	10
Lab #0208	03-11-04	11.7*	45.8	9.0	33.5	97.2	1.1	50.4	0	0
Lab #0312	03-25-04	8.8	47.1	9.6	34.5	96.0	1.8	52.0	400	19
Lab #0328	03-29-04	8.5	47.0	9.0	35.5	96.4	1.6	52.7	406	17
Lab #0371	04-09-04	9.7	48.0	9.4	32.9	96.4	1.1	50.5	390	11
Lab #0689	05-26-04	10.4*	46.8	10.1	32.7	97.2	1.3	50.5	0	0
Lab #0804	06-16-04	9.9	46.7	10.0	33.4	98.7	1.0	51.1	403	10
FULLERTON STONE COMPANY INC, GRANBY, MO										
Stockpile #1										
Lab #0183	02-23-04	3.7	49.9	12.2	34.2	90.4	0.2	54.0	390	2
Lab #0399	04-15-04	5.5	49.3	11.7	33.5	86.2	0.2	52.8	364	2
GABEL STONE COMPANY INC., WILLOW SPRINGS, MO										
GLASGOW QUARRIES INC, GLASGOW, MO										
GLASGOW QUARRIES-GILLIAM, GILLIAM, MO										
Stockpile #1										
Lab #0081	02-16-04	3.5	44.7	13.8	38.0	87.6	5.8	57.5	403	67
Lab #0289	03-23-04	4.2	48.5	7.5	39.8	90.2	6.3	56.4	407	71
Lab #0574	05-12-04	2.8	47.1	11.8	38.3	86.7	5.8	57.2	396	66
Lab #0710	06-01-04	3.5	50.0	6.8	39.7	87.4	5.7	56.3	394	64
Stockpile #2										
Lab #0080	02-16-04	2.0	65.1	7.6	25.3	81.9	5.2	46.1	302	48
Lab #0290	03-24-04	4.2	57.1	7.0	31.7	82.8	4.2	50.2	332	42
Lab #0575	05-12-04	5.0	58.1	7.4	29.5	83.8	4.2	48.5	325	41
Lab #0711	06-01-04	2.6	60.7	7.9	28.8	82.1	4.2	48.7	320	41
Stockpile #3										
Lab #0576	05-12-04	8.4	51.4	8.4	31.8	86.4	3.9	49.7	343	39
Lab #0712	06-01-04	8.2	51.5	9.0	31.3	85.9	4.0	49.6	341	40
GLASGOW QUARRIES - MARCELINE, MARCELINE, MO										
Stockpile #4										
Lab #0155	02-23-04	3.4	47.9	8.4	40.3	89.5	6.3	57.3	410	72
Lab #0324	03-29-04	3.3	48.0	7.5	41.2	88.3	6.0	57.7	408	69
Lab #0449	04-27-04	3.7	48.7	7.4	40.2	88.3	5.8	56.8	401	66
Lab #0645	05-18-04	3.3	48.1	9.1	39.5	89.2	6.4	57.0	407	73
Lab #0798	06-15-04	3.1	48.8	8.3	39.8	89.5	6.3	57.0	408	72
HARVEY PRODUCTS INC, BLUE MOUNDS, WI										
HIGGINS - MEEKER QUARRIES LLC, DEEPWATER, MO										
Stockpile #2										
Lab #0308	03-26-04	3.7	48.1	8.3	39.9	76.3	4.1	56.9	347	47
Lab #0435	04-21-04	6.6	52.5	7.8	33.1	78.8	3.9	50.9	321	40
HILTY QUARRIES, INC. - QUARLES, CLINTON, MO										
Stockpile #3										
Lab #0132	02-17-04	0.9	45.1	10.3	43.7	74.3	4.2	61.2	364	51

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JANUARY 1 THROUGH JUNE 30, 2004

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
HILTY QUARRIES, INC. - QUARLES, CLINTON, MO (Continued)										
Stockpile #3										
Lab #0680	05-26-04	0.3	45.9	12.4	41.4	94.9	0.5	60.3	458	6
Stockpile #4										
Lab #0343	04-02-04	0.5	35.7	16.1	47.7	81.3	0.8	66.3	431	11
Lab #0681	05-26-04	6.1	43.5	11.7	38.7	82.6	0.8	56.6	374	9
HILTY QUARRIES, INC. - MONTROSE, CLINTON, MO										
Stockpile #1										
Lab #0532	05-07-04	0.5	54.3	10.5	34.7	85.8	0.9	54.6	375	10
Lab #0682	05-26-04	0.8	63.0	9.0	27.2	88.3	0.3	48.4	342	3
Lab #0734	06-03-04	0.7	58.0	11.9	29.4	87.3	0.5	51.0	356	5
Stockpile #3										
Lab #0201	03-08-04	2.2	40.6	14.4	42.8	93.7	0.5	61.6	462	6
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
Stockpile #2										
Lab #0306	03-26-04	1.7	48.9	13.7	35.7	84.0	0.2	56.1	377	2
Lab #0486	04-30-04	1.2	49.4	13.5	35.9	85.0	0.1	56.4	383	1
Lab #0731	06-02-04	3.0	49.0	13.6	34.4	81.4	0.1	54.8	357	1
Stockpile #3										
Lab #0307	03-26-04	0.5	50.3	12.7	36.5	88.3	0.1	56.7	400	1
Lab #0487	04-30-04	0.3	44.1	15.5	40.1	89.5	0.1	60.4	433	1
Lab #0732	06-02-04	0.7	46.4	14.5	38.4	86.0	0.1	58.7	404	1
HILTY QUARRIES, INC- SOUTH-DELL JCT, CLINTON, MO										
Stockpile #1										
Lab #0055	02-10-04	1.3	51.5	10.4	36.8	95.3	0.6	55.9	426	7
Lab #0247	03-19-04	0.4	50.9	12.4	36.3	91.6	0.8	56.5	414	9
Lab #0484	04-30-04	0.7	48.7	12.1	38.5	91.8	0.6	57.9	425	7
Lab #0729	06-02-04	1.8	48.6	12.1	37.5	93.3	0.3	56.9	425	3
Stockpile #2										
Lab #0056	02-10-04	1.0	49.4	6.6	43.0	75.7	5.0	59.3	359	59
HILTY QUARRIES, INC - TIGHTWAD, CLINTON, MO										
Stockpile #1										
Lab #0248	03-19-04	0.6	42.3	13.5	43.6	92.8	0.2	62.3	462	2
Lab #0485	04-30-04	0.8	44.8	12.6	41.8	94.6	0.3	60.6	458	4
Lab #0730	06-02-04	1.1	48.9	13.1	36.9	93.6	0.2	57.0	427	2
Stockpile #2										
Lab #0249	03-19-04	0.7	42.1	13.6	43.6	93.3	0.5	62.3	465	6
HILTY QUARRIES, INC. - URICH, CLINTON, MO										
Stockpile #4										
Lab #0200	03-08-04	0.4	45.9	12.3	41.4	93.5	0.3	60.3	451	4
Lab #0434	04-21-04	0.9	44.7	12.1	42.3	94.2	0.3	60.7	458	4
Lab #0735	06-03-04	0.7	45.5	14.1	39.7	94.6	0.7	59.5	451	8
HILTY QUARRIES INC.-WARRENSBURG, CLINTON, MO										
Stockpile #4										
Lab #0144	02-24-04	4.0	55.1	12.6	28.3	73.6	1.4	49.6	292	14
Lab #0310	03-25-04	2.0	48.7	11.0	38.3	68.8	1.2	57.1	314	14
Lab #0384	04-12-04	3.8	50.0	11.5	34.7	66.3	1.1	54.1	287	12

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		+8	-8+40	-40+60	-60				ENM	EMg
HILTY QUARRIES INC.-WARRENSBURG, CLINTON, MO (Continued)										
Stockpile #4										
Lab #0581	05-13-04	3.6	54.4	10.5	31.5	68.7	1.6	51.4	282	16
Lab #0725	06-02-04	1.9	52.6	10.2	35.3	69.5	1.5	54.6	303	16
HUNT MIDWEST MINING-BLUE MOUND, DAWN, MO										
Stockpile #2										
Lab #0050	02-03-04	0.5	56.5	11.8	31.2	89.8	1.1	52.4	376	12
Lab #0218	03-08-04	0.3	53.4	10.8	35.5	89.0	1.1	55.3	394	12
Lab #0436	04-23-04	0.6	52.5	11.7	35.2	87.9	1.2	55.3	389	13
Lab #0510	05-05-04	0.7	50.7	11.8	36.8	90.9	1.1	56.6	411	12
Lab #0719	06-01-04	0.6	53.8	11.3	34.3	90.8	0.9	54.5	396	10
HUNT MIDWEST MINING, INC.-TRENTON, EDINBURG, MO										
HUNT MIDWEST MINING - HWY 10 QUARRY, RAYVILLE, MO										
Stockpile #1										
Lab #0092	02-17-04	3.6	59.0	8.7	28.7	87.3	0.4	48.7	340	4
Lab #0288	03-22-04	2.2	53.1	11.7	33.0	85.7	0.7	53.3	365	7
Lab #0541	05-05-04	3.4	54.1	9.7	32.8	82.6	1.4	52.1	345	15
Lab #0770	06-08-04	3.5	57.7	9.7	29.1	85.5	0.4	49.3	338	4
HUNT MIDWEST QUARRY - STET QUARRY, RICHMOND, MO										
Stockpile #1										
Lab #0219	03-08-04	2.1	55.9	9.1	32.9	85.2	0.6	52.3	357	6
Lab #0508	05-04-04	3.0	60.5	8.1	28.4	87.8	0.7	48.4	340	7
Lab #0718	06-01-04	1.8	55.2	11.4	31.6	86.2	0.6	52.2	360	6
Stockpile #2										
Lab #0220	03-08-04	4.9	52.6	9.1	33.4	88.1	0.8	52.0	367	8
Lab #0507	05-04-04	5.6	51.8	8.6	34.0	90.2	0.7	52.1	376	7
Lab #0717	06-01-04	7.4	54.8	8.3	29.5	88.5	0.8	48.2	341	8
HUTCHENS CONSTRUCTION-PURDY, CASSVILLE, MO										
Stockpile #2										
Lab #0184	02-24-04	0.4	42.0	14.0	43.6	83.5	0.1	62.5	418	1
Lab #0607	05-10-04	1.8	45.1	13.5	39.6	88.6	0.2	59.0	418	2
HUTCHENS CONSTRUCTION-EAGLE ROCK, CASSVILLE, MO										
Stockpile #2										
Lab #0131	02-20-04	1.0	40.1	10.3	48.6	88.3	10.6	64.8	458	137
Lab #0400	04-16-04	1.0	44.3	10.7	44.0	87.0	10.7	61.5	428	132
Lab #0610	05-12-04	1.2	43.8	10.4	44.6	88.3	10.8	61.8	436	133
HUTCHENS CONSTRUCTION-WASHBURN, CASSVILLE, MO										
IDEKER INC. - NEW POINT QUARRY, ST JOSEPH, MO										
IDEKER INC. - AMAZONIA, ST JOSEPH, MO										
Stockpile #1										
Lab #0097	02-16-04	0.4	41.5	13.3	44.8	74.4	2.1	63.2	376	27
Lab #0383	04-15-04	0.7	48.7	13.0	37.6	86.2	1.1	57.6	397	13
JENKINS QUARRY, CASSVILLE, MO										
Stockpile #1										
Lab #0212	03-09-04	1.5	48.3	7.6	42.6	89.5	10.7	59.2	424	127
Lab #0397	04-14-04	1.6	45.2	7.9	45.3	88.7	10.7	61.3	435	131
Lab #0603	05-10-04	1.0	40.6	7.1	51.3	89.9	10.8	65.7	473	142
Stockpile #2										
Lab #0604	05-10-04	0.7	47.7	9.3	42.3	79.5	9.4	59.8	380	112

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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
JIMMY SANDERS, INC, LEACHVILLE, AR										
LEO JOURNAGAN CONST CO-GAINESVILLE, SPRINGFIELD, MO										
LEO JOURNAGAN CONST CO-HOLLISTER SO, SPRINGFIELD, MO										
Stockpile #1										
Lab #0275	03-15-04	1.5	49.6	11.9	37.0	93.0	0.5	56.5	421	6
Lab #0496	04-27-04	1.6	51.2	12.2	35.0	93.7	0.6	55.1	413	7
Lab #0814	06-11-04	1.3	52.3	11.6	34.8	93.6	0.5	54.8	411	5
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 #0119	02-20-04	3.8	41.9	7.2	47.1	92.5	11.1	61.9	458	137
Lab #0401	04-16-04	4.1	42.0	7.7	46.2	90.7	11.2	61.3	445	137
Lab #0609	05-12-04	3.0	40.8	8.1	48.1	91.7	11.0	63.2	463	139
JOPLIN STONE CO Q DUENWEG, JOPLIN, MO										
Stockpile #2										
Lab #0069	02-12-04	4.1	30.5	17.1	48.3	96.6	0.1	66.2	511	1
Lab #0398	04-15-04	0.2	18.6	20.2	61.0	95.5	0.2	77.8	594	3
Lab #0611	05-14-04	0.2	22.1	21.2	56.5	96.3	0.2	74.7	576	3
Lab #0815	06-14-04	0.2	19.6	22.3	57.9	96.3	0.1	76.2	587	2
K & D CRUSHING, INC., MINERAL POINT, MO										
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Stockpile #1										
Lab #0088	02-16-04	3.8	39.7	8.5	48.0	91.8	2.0	63.0	463	25
Lab #0278	03-22-04	4.4	42.1	10.3	43.2	92.8	1.0	59.9	445	12
Lab #0413	04-16-04	2.0	41.4	10.0	46.6	90.6	2.0	63.0	456	25
Lab #0569	05-06-04	1.4	42.5	9.7	46.4	87.8	1.9	62.8	441	24
Stockpile #3										
Lab #0089	02-16-04	0.1	0.7	0.6	98.6	97.3	0.7	99.1	772	14
Lab #0279	03-22-04	0.3	0.9	0.7	98.1	97.8	0.7	98.7	773	14
Lab #0414	04-16-04	0.1	0.4	0.5	99.0	97.1	0.8	99.4	772	16
Lab #0570	05-06-04	0.1	0.8	0.6	98.5	97.9	0.7	99.1	776	14
Stockpile #4										
Lab #0090	02-16-04	3.2	16.5	3.7	76.6	92.0	1.2	82.9	610	20
Lab #0280	03-22-04	1.3	16.0	4.2	78.5	91.0	1.1	85.0	619	19
Lab #0415	04-16-04	1.4	17.3	3.9	77.4	90.3	1.2	84.1	607	20
Lab #0571	05-06-04	1.6	17.3	4.1	77.0	92.0	1.1	83.8	617	18
KELLEY QUARRY, CROCKER, MO										
Stockpile #1										
Lab #0542	05-04-04	6.3	48.6	10.8	34.3	88.9	10.6	52.9	376	112
Stockpile #2										
Lab #0114	02-16-04	7.2	45.9	12.2	34.7	84.0	10.2	53.5	359	109
Lab #0227	03-11-04	7.8	46.5	9.9	35.8	86.2	10.1	53.4	368	108
KERFORD LIMESTONE CO, WEEPING WATER, NE										
Stockpile #1										
Lab #0094	02-17-04	0.0	0.2	0.1	99.7	94.4	0.4	99.8	754	8
Lab #0774	06-07-04	0.1	0.6	0.3	99.0	95.1	0.3	99.3	756	6

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		+8	-8+40	-40+60	-60				ENM	EMg
KNOX COUNTY STONE CO, EDINA, MO										
Stockpile #1										
Lab #0146	02-23-04	4.4	42.7	11.3	41.6	89.8	2.4	59.1	424	28
Lab #0335	03-29-04	3.8	40.1	11.6	44.5	79.4	2.9	61.5	391	36
Lab #0457	04-27-04	10.4*	47.2	10.2	32.2	87.5	1.9	50.1	0	0
Lab #0764	06-09-04	3.9	41.0	12.5	42.6	89.7	1.8	60.4	433	22
L & W QUARRIES INC., CENTERVILLE, IA										
Stockpile #1										
Lab #0147	02-24-04	5.4	46.0	9.3	39.3	86.9	1.0	56.4	392	11
Lab #0336	03-30-04	4.6	45.3	9.8	40.3	89.5	0.8	57.5	412	9
Lab #0458	04-28-04	5.0	47.1	9.7	38.2	89.1	0.7	55.8	398	8
Lab #0762	06-08-04	0.3	41.7	12.4	45.6	91.3	0.3	63.5	464	4
Stockpile #2										
Lab #0148	02-24-04	9.4	45.5	9.7	35.4	92.6	0.2	52.6	390	2
Lab #0337	03-30-04	8.1	46.6	10.2	35.1	92.4	0.2	52.9	391	2
Lab #0763	06-08-04	8.3	44.7	10.0	37.0	92.6	0.2	54.2	401	2
LAFARGE QUARRY, SEDALIA, MO										
Stockpile #1										
Lab #0234	03-18-04	0.8	50.3	8.1	40.8	84.6	4.8	58.2	394	56
Lab #0422	03-20-04	3.7	49.3	7.6	39.4	81.1	5.1	56.3	365	57
Lab #0625	05-18-04	3.0	46.9	10.6	39.5	79.9	5.2	57.6	368	60
Stockpile #3										
Lab #0109	02-19-04	7.0	48.2	9.8	35.0	85.8	2.5	52.9	363	26
Lab #0233	03-18-04	6.5	50.7	8.1	34.7	86.2	3.6	52.2	360	38
Lab #0423	04-20-04	1.1	54.3	7.3	37.3	86.9	4.9	55.3	384	54
Lab #0626	05-18-04	0.7	48.7	8.2	42.4	82.6	5.8	59.5	393	69
Lab #0801	06-16-04	1.5	51.7	8.5	38.3	87.6	5.3	56.3	395	60
LAFARGE CORPORATION, SEDALIA, MO										
LEAD BELT MATERIALS CO INC, FLAT RIVER, MO										
Stockpile #2										
Lab #0178	02-25-04	0.0	27.3	13.7	59.0	89.2	10.7	74.0	528	158
Lab #0355	04-01-04	0.2	25.3	13.4	61.1	89.0	10.5	75.5	537	158
Lab #0741	06-02-04	0.2	29.0	13.7	57.1	89.2	10.7	72.6	518	155
LILE QUARRY INC., STRAFFORD, MO										
Stockpile #1										
Lab #0129	02-19-04	0.3	45.8	8.1	45.8	85.5	10.3	62.1	425	128
Lab #0737	06-02-04	0.3	50.1	8.3	41.3	93.1	11.1	58.8	438	131
LIMPUS QUARRIES, INC. (BATES CITY), BATES CITY, MO										
LIMPUS QUARRIES, INC. (GARDEN CITY), HARRISONVILLE, MO										
Stockpile #1										
Lab #0010	01-08-04	7.7	57.6	6.6	28.1	74.9	1.3	46.5	278	12
Lab #0020	01-12-04	7.2	58.2	7.7	26.9	75.6	1.5	46.1	279	14
Lab #0029	01-22-04	5.4	55.4	8.4	30.8	73.8	1.7	49.7	293	17
Lab #0189	03-02-04	7.5	60.1	7.2	25.2	75.2	1.8	44.5	268	16
Lab #0253	03-15-04	6.7	56.6	7.5	29.2	74.8	1.7	47.9	286	16
Lab #0777	06-08-04	3.9	54.5	10.0	31.6	67.7	1.2	51.2	277	12
LIMPUS QUARRIES, INC. (GALLATIN), GALLATIN, MO										
Stockpile #1										
Lab #0033	01-30-04	7.0	50.6	9.2	33.2	72.2	1.4	51.4	297	14

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AGRICULTURAL LIMING MATERIALS SAMPLED FROM
JANUARY 1 THROUGH JUNE 30, 2004

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), GALLATIN, MO (Continued)										
Stockpile #1										
Lab #0166	02-26-04	6.1	50.9	8.3	34.7	74.9	1.5	52.4	314	16
Lab #0364	04-09-04	8.7	53.2	8.0	30.1	77.9	1.1	48.2	300	11
Lab #0658	05-20-04	9.7	58.5	7.4	24.4	82.7	0.6	43.5	288	5
Lab #0793	06-14-04	4.9	47.4	7.3	40.4	72.5	1.0	56.6	328	11
Stockpile #2										
Lab #0034	01-30-04	3.0	35.5	17.7	43.8	66.1	1.4	63.3	335	18
Lab #0165	02-26-04	4.9	46.8	8.5	39.8	64.7*	1.8	56.6	0	0
Lab #0363	04-09-04	5.7	47.4	7.6	39.3	66.3	1.7	55.7	295	19
Lab #0657	05-20-04	3.2	53.8	11.0	32.0	71.0	0.7	52.1	296	7
Lab #0792	06-14-04	5.5	51.9	8.4	34.2	71.2	0.7	52.2	297	7
LIMPUS QUARRIES, INC. (HARRISONVILLE), HARRISONVILLE, MO										
Stockpile #1										
Lab #0187	03-02-04	6.1	45.6	13.9	34.4	87.7	0.5	54.1	380	5
Lab #0665	05-18-04	8.1	50.9	7.7	33.3	86.6	1.0	50.6	351	10
LIMPUS QUARRIES, INC. (HOLDEN), HARRISONVILLE, MO										
Stockpile #2										
Lab #0145	02-24-03	3.9	52.8	8.8	34.5	74.2	2.5	53.0	314	26
Lab #0309	03-25-04	2.5	51.4	7.0	39.1	73.9	2.6	56.2	332	29
LIMPUS QUARRIES, INC.-(SUGAR CREEK), HARRISONVILLE, MO										
Stockpile #1										
Lab #0445	04-26-04	5.6	54.5	8.9	31.0	87.4	0.6	50.0	349	6
Lab #0648	05-20-04	11.7*	49.5	8.4	30.4	88.3	0.9	47.8	0	0
Lab #0771	06-08-04	13.6*	50.2	7.4	28.8	89.0	0.7	45.8	0	0
MAGRUDER LIMESTONE CO-ASHLEY, BOWLING GREEN, MO										
Stockpile #1										
Lab #0135	02-17-04	0.4	45.7	7.7	46.2	81.0	2.2	62.2	403	27
Lab #0314	03-24-04	0.4	45.6	8.3	45.7	84.5	2.1	62.1	420	26
Lab #0517	04-30-04	0.1	43.9	14.3	41.7	98.1	0.8	61.3	481	10
Lab #0758	06-04-04	0.3	49.7	9.3	40.7	81.8	2.0	58.7	384	23
MAGRUDER LIMESTONE CO, INC.-BOWLING, BOWLING GREEN, MO										
Stockpile #1										
Lab #0313	03-24-04	1.0	45.0	11.0	43.0	94.5	1.1	60.9	460	13
Lab #0516	04-30-04	0.3	45.3	11.4	43.0	93.5	1.2	61.2	458	15
Lab #0757	06-04-04	0.7	51.0	10.2	38.1	97.1	0.9	57.0	443	10
MAGRUDER LIMESTONE CO-FRANKFORD, BOWLING GREEN, MO										
Stockpile #1										
Lab #0040	02-04-04	0.4	39.6	11.8	48.2	98.6	1.7	65.2	514	22
Lab #0193	03-01-04	0.3	40.4	13.2	46.1	97.1	1.3	64.1	498	17
Lab #0409	04-15-04	0.1	38.4	13.5	48.0	97.6	1.5	65.7	513	20
Lab #0572	05-07-04	1.3	41.8	12.4	44.5	98.0	1.6	62.4	489	20
MAGRUDER LIMESTONE - SILEX QUARRY, TROY, MO										
Stockpile #2										
Lab #0082	02-11-04	6.4	52.8	7.7	33.1	87.0	3.3	50.9	354	34
Lab #0195	03-02-04	6.0	50.7	7.9	35.4	87.8	3.0	52.8	371	32
Lab #0518	04-30-04	5.1	51.7	8.0	35.2	92.3	2.7	52.9	391	29
Lab #0759	06-04-04	4.6	52.5	8.5	34.4	91.6	2.6	52.6	386	27

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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
MAGRUDER LIMESTONE CO Q TROY, TROY, MO										
Stockpile #1										
Lab #0083	02-11-04	7.0	56.4	5.8	30.8	85.3	3.2	48.4	330	31
Lab #0315	03-24-04	6.1	46.8	8.5	38.6	91.0	2.0	55.4	403	22
Lab #0519	04-30-04	2.3	47.0	11.1	39.6	97.0	1.5	58.0	450	17
Lab #0760	06-04-04	5.1	45.6	9.6	39.7	92.3	2.2	56.9	420	25
MANSFIELD LIME & STONE, MANSFIELD, MO										
Stockpile #2										
Lab #0346	03-31-04	0.1	49.6	8.2	42.1	82.7	9.6	59.4	393	114
Lab #0497	04-28-04	0.1	48.4	10.2	41.3	80.6	9.6	59.5	384	114
MARTIN MARIETTA AGGREGATES-JEFFRIES, DAVIS CITY, IA										
MARTIN MARIETTA MATERIALS-WATTERSON, MT AYR, IA										
MARTIN MARIETTA AGG - APPLETON, PERRYVILLE, MO										
Stockpile #1										
Lab #0564	05-02-04	1.1	64.6	8.5	25.8	94.5	1.5	47.1	356	14
Lab #0687	05-27-04	1.3	60.2	10.5	28.0	88.1	1.6	49.4	348	16
Lab #0824	06-14-04	0.9	56.2	12.8	30.1	88.7	1.8	51.8	368	19
MARTIN MARIETTA AGGREGATE-FREDONIA, FREDONIA, KY										
MARTIN MARIETTA-GREENWOOD, GREENWOOD, MO										
MARTIN MARIETTA MATERIALS-PECULIAR, PECULIAR, MO										
Stockpile #1										
Lab #0188	03-02-04	8.7	52.9	8.7	29.7	89.9	0.8	48.1	346	8
Lab #0664	05-18-04	7.3	56.3	8.3	28.1	91.9	0.8	47.2	347	8
MARTIN MARIETTA AGG-PERRYVILLE, PERRYVILLE, MO										
Stockpile #1										
Lab #0176	02-26-04	0.0	11.2	8.4	80.4	94.0	1.8	88.2	664	32
Lab #0354	03-31-04	0.1	6.7	5.7	87.5	94.3	1.7	92.6	699	31
Lab #0408	04-15-04	0.3	15.4	11.2	73.1	93.5	2.2	83.7	626	37
Lab #0823	06-15-04	0.3	10.2	10.7	78.8	95.3	2.2	87.8	669	39
MARTIN MARIETTA AGGREGATES INC, WEEPING WATER, NE										
Stockpile #1										
Lab #0095	02-17-04	2.1	54.1	9.7	34.1	87.9	0.9	53.4	376	10
Lab #0775	06-07-04	3.6	51.7	9.3	35.4	89.0	0.5	53.9	384	5
MERTENS CONST CO-AUXVASSE, KINGDOM CITY, MO										
Stockpile #1										
Lab #0151	02-27-04	5.0	51.6	8.7	34.7	99.0	6.7	52.8	418	71
Lab #0281	03-23-04	5.8	52.3	7.6	34.3	100.3	8.4	51.9	417	87
Lab #0521	05-05-04	2.8	50.5	8.5	38.2	96.9	6.9	55.9	434	77
Lab #0755	06-03-04	4.3	50.3	8.1	37.3	96.9	6.7	54.7	424	73
Stockpile #3										
Lab #0043	02-09-04	6.0	41.9	9.8	42.3	93.1	1.3	58.7	437	15
Lab #0282	03-23-04	5.6	41.0	9.5	43.9	94.4	1.6	59.9	452	19
Lab #0522	05-05-04	5.1	42.0	9.9	43.0	94.9	1.6	59.4	451	19
Lab #0756	06-03-04	5.4	42.3	9.5	42.8	95.7	1.4	59.1	452	17
MERTENS CONST CO-Q-REFORM, KINGDOM CITY, MO										
Stockpile #1										
Lab #0118	02-20-04	10.2*	54.8	7.5	27.5	90.0	2.1	45.7	0	0
Lab #0251	03-15-04	1.4	49.2	11.9	37.5	87.3	1.4	56.9	398	16
Lab #0252	03-16-04	3.0	51.1	11.4	34.5	88.6	1.0	54.1	384	11

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		+8	-8+40	-40+60	-60				ENM	EMg
MERTENS CONST CO-Q-REFORM, KINGDOM CITY, MO (Continued)										
Stockpile #1										
Lab #0402	04-12-04	2.7	57.5	8.7	31.1	88.6	0.9	50.7	359	9
Lab #0549	05-07-04	6.9	63.1	7.4	22.6	91.9	1.3	42.8	315	11
Lab #0785	06-11-04	6.0	64.2	8.6	21.2	90.9	1.9	42.4	308	16
MFA INC, COLUMBIA, MO										
MID-MISSOURI LIMESTONE INC-MBQ, KINGDOM CITY, MO										
Stockpile #1										
Lab #0038	02-06-04	5.1	51.3	10.1	33.5	96.0	2.5	52.4	402	26
Lab #0347	03-29-04	3.2	49.5	11.7	35.6	91.6	2.0	55.0	403	22
Lab #0491	04-28-04	3.8	50.6	10.7	34.9	96.2	3.1	54.0	415	33
Lab #0708	05-26-04	3.8	50.9	11.5	33.8	92.2	2.2	53.4	394	24
Stockpile #2										
Lab #0709	05-26-04	4.3	50.7	10.5	34.5	94.6	2.8	53.5	405	30
MID-MISSOURI LIMESTONE, INC.-HOUSTO, KINGDOM CITY, MO										
Stockpile #1										
Lab #0021	01-13-04	7.8	48.0	10.4	33.8	90.7	0.2	52.0	378	2
Lab #0022	01-15-04	7.7	47.8	11.0	33.5	91.7	0.2	52.1	382	2
Lab #0111	02-19-04	6.0	48.9	12.4	32.7	93.3	0.1	52.4	391	1
Lab #0236	03-18-04	5.7	47.6	11.3	35.4	88.7	0.2	54.1	384	2
Lab #0425	04-20-04	3.1	38.2	15.0	43.7	89.6	0.1	62.3	446	1
Lab #0628	05-18-04	4.6	40.9	16.4	38.1	92.0	0.3	58.2	428	3
Lab #0803	06-16-04	5.5	49.2	12.6	32.7	93.0	0.4	52.6	391	4
MID-MISSOURI LIMESTONE-RIGGS, KINGDOM CITY, MO										
Stockpile #1										
Lab #0044	02-09-04	3.7	53.8	6.8	35.7	91.3	8.3	53.2	389	88
Lab #0284	03-23-04	2.8	40.2	9.0	48.0	96.3	3.5	63.5	489	44
Lab #0515	04-29-04	2.7	40.3	9.0	48.0	96.0	3.7	63.5	487	47
Stockpile #2										
Lab #0045	02-09-04	2.1	39.3	8.8	49.8	96.8	4.1	64.9	503	53
Lab #0283	03-23-04	3.5	52.1	7.2	37.2	88.2	8.1	54.5	385	88
Lab #0514	04-29-04	4.0	50.7	8.1	37.2	86.7	7.9	54.7	380	86
Lab #0643	05-21-04	7.3	48.8	9.6	34.3	94.8	1.1	52.3	396	11
Stockpile #3										
Lab #0046	02-09-04	9.8	42.4	8.3	39.5	96.0	5.4	55.1	423	59
MIDWEST MINERALS INC - JASPER, PITTSBURG, KS										
Stockpile #1										
Lab #0066	02-10-04	4.0	31.0	15.2	49.8	98.0	0.2	66.7	523	3
Lab #0393	04-13-04	3.3	32.2	15.2	49.3	97.6	0.1	66.5	519	1
MISSISSIPPI LIME COMPANY, STE GENEVIEVE, MO										
Stockpile #1										
Lab #0174	02-25-04	0.0	0.2	0.5	99.3	98.9	0.2	99.7	788	4
Lab #0352	03-31-04	0.0	0.4	0.5	99.1	98.8	0.2	99.5	786	4
Lab #0821	06-15-04	0.0	0.3	0.5	99.2	99.5	0.2	99.6	793	4
Stockpile #3										
Lab #0175	02-25-04	0.0	43.1	28.9	28.0	98.8	0.3	56.1	444	3
Lab #0353	03-31-04	0.0	44.8	28.5	26.7	99.2	0.2	55.0	436	2
Lab #0822	06-15-04	0.2	43.4	32.2	24.2	99.5	0.2	54.4	433	2

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		+8	-8+40	-40+60	-60				ENM	EMg
MISSOURI LIME AND MATERIAL CO., INC, EUREKA, MO										
Stockpile #2										
Lab #0171	02-23-04	0.0	0.3	4.0	95.7	97.4	5.8	98.2	765	114
Lab #0349	03-30-04	0.0	0.5	4.1	95.4	96.2	4.2	98.0	754	82
Lab #0545	05-05-04	0.0	0.4	2.5	97.1	97.8	4.7	98.7	772	93
MISSOURI VALLEY MATERIALS, RHINELAND, MO										
Stockpile #1										
Lab #0494	04-30-04	4.1	45.6	9.0	41.3	84.1	10.1	58.1	391	117
Lab #0547	05-06-04	18.2*	41.0	6.6	34.2	82.8	9.7	48.4	0	0
Lab #0548	05-07-04	18.0*	38.6	7.8	35.6	80.2	9.5	49.9	0	0
Lab #0744	05-24-04	10.8*	34.4	13.0	41.8	56.8*	6.9	58.2	0	0
MK MINERALS INC., MANHATTAN, KS										
Stockpile #1										
Lab #0098	02-16-04	0.0	0.3	1.1	98.6	80.3	1.2	99.3	638	24
Lab #0301	03-23-04	0.0	0.6	1.3	98.1	83.1	1.0	99.0	658	20
Lab #0716	06-03-04	0.6	1.0	1.0	97.4	88.5	0.7	98.3	696	14
MO VALLEY GRAIN & PELLETIZING, MISSOURI VALLEY, IA										
MORRIS ROCK, DEERFIELD, MO										
Stockpile #1										
Lab #0291	03-22-04	3.7	56.7	10.4	29.2	92.4	1.0	49.6	367	10
Lab #0483	04-29-04	3.6	53.4	11.1	31.9	92.8	0.9	51.9	385	9
MOUNTAIN GROVE QUARRY, MOUNTAIN GROVE, MO										
Stockpile #1										
Lab #0632	05-19-04	0.1	41.1	9.0	49.8	91.6	10.6	65.5	480	139
MUEKNS BROTHERS QUARRIES, INC-WEST, LOOSE CREEK, MO										
Stockpile #1										
Lab #0250	03-15-04	6.8	39.4	9.8	44.0	90.2	10.9	59.7	431	130
Lab #0443	04-22-04	7.7	42.8	7.2	42.3	91.9	11.1	57.3	421	127
Lab #0671	05-17-04	7.1	43.8	8.7	40.4	89.8	10.6	56.6	406	120
MUEKNS BROS. QUARRY, LOOSE CREEK, MO										
Stockpile #2										
Lab #0117	02-19-04	1.5	51.5	8.2	38.8	92.7	11.1	56.6	420	126
Lab #0369	04-07-04	0.8	48.1	9.2	41.9	93.0	11.1	59.4	442	132
Lab #0589	05-13-04	1.3	52.0	9.6	37.1	87.2	10.4	55.9	390	116
KEITH MURRAY, PLATO, MO										
Stockpile #1										
Lab #0631	05-19-04	5.5	16.0	3.4	75.1	111.3	0.1	81.1	722	2
NELSON BROS. QUARRIES, JASPER, MO										
Stockpile #1										
Lab #1032	08-11-03	3.7	45.4	13.7	37.2	96.1	0.3	56.8	436	3
Lab #1492	10-22-03	4.1	50.3	12.9	32.7	97.1	0.3	53.0	412	3
Lab #0067	02-10-04	3.1	47.6	13.6	35.7	97.9	0.2	55.8	437	2
Lab #0394	04-13-04	4.6	50.5	12.3	32.6	96.6	0.5	52.6	407	5
NEMO SAND & GRAVEL QUARRY - BUFFALO, HERMITAGE, MO										
NEMO SAND & GRAVEL, QUARRY, HERMITAGE, MO										
Stockpile #1										
Lab #0256	03-16-04	1.5	41.1	7.8	49.6	87.2	10.5	64.6	450	136
Lab #0528	05-05-04	2.6	41.3	9.1	47.0	87.7	10.5	62.8	440	132

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NORRIS AGGREGATE PROD. CO.-BARNARD, SAVANNAH, MO										
Stockpile #1										
Lab #0061	02-11-04	3.0	50.8	10.0	36.2	85.1	1.5	54.9	374	16
Lab #0238	03-15-04	3.8	50.7	9.4	36.1	84.0	1.6	54.4	366	17
Lab #0381	04-14-04	3.8	50.7	8.8	36.7	83.9	1.5	54.7	367	16
Lab #0600	05-12-04	3.1	51.6	9.8	35.5	84.1	1.5	54.3	365	16
NORRIS AGGREGATES PROD. CO.-BETHANY, SAVANNAH, MO										
Stockpile #3										
Lab #0054	02-11-04	9.6	49.2	8.4	32.8	72.6	1.6	50.1	291	16
Lab #0223	03-11-04	8.7	49.6	8.5	33.2	79.7	1.4	50.7	323	14
Lab #0429	04-21-04	1.6	49.7	9.4	39.3	86.1	1.3	57.4	395	15
Lab #0592	05-11-04	1.6	49.1	10.6	38.7	84.7	1.4	57.3	389	16
Lab #0720	06-02-04	1.3	49.3	11.4	38.0	80.9	1.2	57.2	370	14
NORRIS AGGREGATE PROD. CO. - BREIT, SAVANNAH, MO										
Stockpile #1										
Lab #0096	02-16-04	5.5	52.1	10.1	32.3	87.9	0.6	51.4	361	6
Lab #0241	03-15-04	5.8	53.9	9.3	31.0	86.7	0.9	50.1	347	9
Lab #0380	04-12-04	4.2	52.0	10.0	33.8	73.9	2.0	52.8	312	21
Lab #0692	05-26-04	6.0	56.5	10.1	27.4	83.3	1.1	47.6	317	10
NORRIS AGGREGATE PROD. CO.-GALLATIN, SAVANNAH, MO										
Stockpile #1										
Lab #0035	01-30-04	5.0	49.1	8.7	37.2	77.3	1.7	54.7	338	19
Lab #0164	02-26-04	6.4	48.8	9.3	35.5	77.1	1.7	53.3	329	18
Lab #0325	03-30-04	5.1	49.2	9.1	36.6	77.5	1.6	54.4	337	17
Lab #0490	04-28-04	5.5	48.0	9.9	36.6	77.7	1.7	54.5	339	19
Lab #0659	05-20-04	5.6	50.3	9.6	34.5	76.5	1.6	52.8	323	17
Lab #0791	06-14-04	5.8	50.4	8.7	35.1	77.4	1.7	52.9	328	18
NORRIS AGGREGATE PROD. CO.- GOODEN, SAVANNAH, MO										
Stockpile #1										
Lab #0168	02-23-04	2.7	47.2	8.7	41.4	82.3	1.7	58.4	385	20
Lab #0320	03-25-04	4.6	50.6	8.8	36.0	80.5	1.8	53.9	347	19
Lab #0474	04-30-04	2.4	45.3	9.6	42.7	81.5	1.8	59.8	390	22
Lab #0714	06-01-04	3.6	48.5	8.1	39.8	81.2	1.9	56.8	369	22
NORRIS AGGREGATE PRODUCTS CO - EAST, HUNTSVILLE, MO										
Stockpile #3										
Lab #0014	01-12-04	0.7	47.7	13.5	38.1	94.2	1.4	58.1	438	16
Lab #0159	02-24-04	0.4	45.0	16.3	38.3	96.6	0.9	59.3	459	11
Lab #0323	03-29-04	0.6	45.1	15.9	38.4	95.8	1.9	59.2	454	23
Lab #0451	04-27-04	3.0	47.6	12.7	36.7	91.7	1.4	56.2	412	16
Lab #0662	05-19-04	1.9	51.1	12.5	34.5	91.3	0.7	54.8	400	8
NORRIS AGGREGATE PRODUCTS CO - WEST, HUNTSVILLE, MO										
Stockpile #1										
Lab #0013	01-12-04	4.1	48.7	11.7	35.5	86.1	0.2	54.7	377	2
Lab #0158	02-24-04	4.2	51.1	10.8	33.9	87.4	0.2	53.2	372	2
Lab #0322	03-29-04	4.8	51.2	11.2	32.8	86.9	0.2	52.3	364	2
Lab #0450	04-27-04	3.9	49.2	13.4	33.5	86.1	0.2	53.8	371	2
Lab #0663	05-19-04	4.3	50.5	13.5	31.7	86.2	0.2	52.4	362	2

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TABLE 1
AGRICULTURAL LIMING MATERIALS SAMPLED FROM
JANUARY 1 THROUGH JUNE 30, 2004

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.-JEFFRIES, SAVANNAH, MO										
Stockpile #1										
Lab #0052	02-10-04	3.6	55.2	9.6	31.6	88.4	0.8	51.2	362	8
Stockpile #3										
Lab #0053	02-10-04	5.4	38.3	20.0	36.3	87.6	1.1	57.9	406	13
Lab #0360	04-05-04	4.8	48.8	8.9	37.5	87.6	1.0	55.0	386	11
Lab #0595	05-11-04	6.7	52.5	8.7	32.1	89.6	0.9	50.4	362	9
Lab #0723	06-02-04	6.1	49.0	8.7	36.2	88.0	1.0	53.7	378	11
Stockpile #4										
Lab #0361	04-05-04	4.5	56.3	8.7	30.5	87.5	1.0	49.8	349	10
Lab #0594	05-11-04	3.1	48.6	10.0	38.3	88.1	0.9	56.5	398	10
Lab #0722	06-02-04	5.3	50.1	9.8	34.8	88.3	0.9	53.2	376	10
NORRIS AGGREGATE PROD. CO.-MAITLAND, SAVANNAH, MO										
Stockpile #2										
Lab #0240	03-15-04	8.4	46.1	9.4	36.1	82.9	1.5	53.3	353	16
Lab #0602	05-12-04	7.4	40.1	7.1	45.4	82.2	1.8	59.7	392	21
Lab #0776	06-09-04	8.3	42.8	9.3	39.6	81.8	1.6	55.9	366	18
NORRIS AGGREGATE PROD. CO.- MERCER, SAVANNAH, MO										
Stockpile #1										
Lab #0016	01-13-04	4.8	43.7	9.6	41.9	87.4	1.1	58.6	410	13
Lab #0107	02-16-04	7.8	45.3	8.8	38.1	86.9	0.7	54.7	380	8
Stockpile #2										
Lab #0017	01-13-04	10.7*	49.3	8.3	31.7	86.6	0.5	49.0	0	0
Lab #0108	02-16-04	12.4*	48.6	8.1	30.9	86.0	0.5	47.9	0	0
Lab #0268	03-16-04	12.2*	50.2	7.6	30.0	86.6	0.5	47.1	0	0
NORRIS AGGREGATE PROD. CO. -ROUTE C, SAVANNAH, MO										
NORRIS AGGREGATE PROD CO-PRINCETON, SAVANNAH, MO										
NORRIS AGGREGATE PROD. CO.- TRENTON, SAVANNAH, MO										
Stockpile #1										
Lab #0222	03-11-04	8.4	54.6	8.1	28.9	77.5	1.3	47.4	294	12
Lab #0326	03-30-04	1.9	46.9	13.0	38.2	76.5	1.2	57.7	353	14
Lab #0489	04-28-04	5.6	53.8	9.0	31.6	77.8	1.0	50.5	314	10
Lab #0655	05-20-04	3.2	51.0	11.2	34.6	78.4	1.1	54.1	339	12
Lab #0790	06-14-04	2.5	53.4	9.8	34.3	79.4	1.0	53.5	340	11
Stockpile #3										
Lab #0018	01-13-04	5.2	55.3	6.4	33.1	88.1	0.8	50.8	358	8
Lab #0163	02-26-04	3.5	53.0	8.8	34.7	84.1	1.0	53.2	358	11
Lab #0488	04-28-04	7.3	59.7	5.7	27.3	85.9	1.2	45.6	314	11
Lab #0654	05-20-04	3.4	50.8	8.4	37.4	82.1	1.3	55.1	362	14
Lab #0789	06-14-04	4.1	50.7	7.6	37.6	78.2	1.2	54.8	343	13
NORRIS AGGREGATE PRODUCT CO-AMAZONI, SAVANNAH, MO										
Stockpile #1										
Lab #0691	05-26-04	1.5	45.2	11.1	42.2	78.5	2.0	60.2	378	24
NUTRI JECT - QUINCY, HUDSON, IA										
NUTRI-JECT SYSTEMS INC. - TRENTON, HUDSON, IA										
LEO O'LAUGHLIN INC, SHELBYNA, MO										
Stockpile #1										
Lab #0087	02-16-04	7.9	46.7	8.8	36.6	88.8	1.6	53.6	380	17
Lab #0276	03-22-04	4.9	46.5	9.2	39.4	85.2	1.3	56.5	385	15

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TABLE 1

AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JANUARY 1 THROUGH JUNE 30, 2004

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
LEO O'LAUGHLIN INC, SHELBINA, MO (Continued)										
Stockpile #1										
Lab #0411	04-16-04	7.2	46.2	10.9	35.7	75.8	1.3	53.8	326	14
Lab #0567	05-06-04	7.8	47.1	8.6	36.5	78.4	1.4	53.4	335	15
PHENIX ROCK, ASH GROVE, MO										
PRESTAGE QUARRIES INC, TIPTON, MO										
Stockpile #1										
Lab #0073	02-10-04	0.1	37.8	9.8	52.3	67.2	6.6	67.6	364	89
Lab #0210	03-10-04	0.1	43.7	9.6	46.6	71.7	6.4	63.3	363	81
Lab #0623	05-17-04	0.2	42.7	11.2	45.9	74.7	5.8	63.3	378	73
BARRY REID - MENDOTA QUARRY, GREEN CITY, MO										
ROCK QUARRIES, LLC, MOUNTAIN GROVE, MO										
ROCK QUARRIES, LLC, MOUNTAIN GROVE, MO										
RUBLE ROCK & LIME INC, PATTERSON, MO										
Stockpile #1										
Lab #0468	04-28-04	4.6	10.2	22.8	62.4	101.2	12.5	78.6	637	197
Lab #0618	05-17-04	6.8	12.4	24.3	56.5	101.8	11.9	74.2	604	177
Lab #0828	06-15-04	6.6	12.2	21.9	59.3	101.0	12.1	75.5	610	183
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 #0167	02-23-04	1.2	44.9	10.1	43.8	70.2	1.3	61.1	343	16
Lab #0319	03-25-04	0.3	56.2	10.7	32.8	84.0	3.2	53.3	358	34
Lab #0550	05-03-04	1.4	50.2	9.9	38.5	65.0	1.3	57.0	296	15
SCHILDBERG CONST. CO.-BEDFORD Q., GREENFIELD, IA										
SCHILDBERG CONST. CO.-GRAHAM MO Q, GREENFIELD, IA										
Stockpile #1										
Lab #0060	02-11-04	3.3	50.3	10.3	36.1	85.4	0.6	54.9	375	7
Lab #0239	03-15-04	0.9	51.0	11.4	36.7	88.7	0.7	56.3	399	8
Lab #0382	04-14-04	1.2	52.5	10.4	35.9	87.2	0.6	55.3	386	7
Lab #0601	05-12-04	1.3	54.2	11.2	33.3	89.1	0.6	53.6	382	6
SCHILDBERG CONST. CO.-SHAMBAUGH Q, GREENFIELD, IA										
Stockpile #1										
Lab #0104	02-09-04	1.5	43.7	9.3	45.5	83.3	1.0	62.0	413	12
Lab #0334	03-31-04	1.0	42.2	11.2	45.6	82.1	1.3	62.9	413	16
Lab #0473	04-30-04	2.0	48.0	11.9	38.1	83.8	1.1	57.2	384	13
Lab #0715	06-02-04	0.8	45.0	10.2	44.0	84.0	1.5	61.4	412	18
SCHILDBERG CONST. CO.-THURMAN, GREENFIELD, IA										
Stockpile #1										
Lab #0773	06-07-04	2.1	45.1	14.4	38.4	82.2	0.7	58.3	383	8
SIEGEL GRAVEL & EXCAVATING, VERSAILLES, MO										
Stockpile #1										
Lab #0373	04-09-04	0.5	36.8	9.2	53.5	82.6	10.0	68.2	451	136
Lab #0374	04-13-04	0.6	34.6	9.4	55.4	83.6	10.2	69.7	466	142
Lab #0421	04-19-04	0.7	40.8	8.6	49.9	84.0	10.1	65.3	439	132
Lab #0621	05-17-04	0.7	39.0	6.8	53.5	83.6	9.9	67.3	450	133
Stockpile #2										
Lab #0622	05-17-04	0.4	35.4	7.9	56.3	81.7	9.9	69.9	457	138

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JANUARY 1 THROUGH JUNE 30, 2004

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
SOUTHWEST QUARRY & MATERIAL INC, ROLLA, MO										
SPRINGFIELD UNDERGROUND, INC., SPRINGFIELD, MO										
Stockpile #1										
Lab #0125	02-18-04	0.1	9.5	13.8	76.6	98.3	0.2	87.3	686	3
Lab #0535	05-03-04	0.0	10.0	13.8	76.2	99.0	0.2	87.0	689	3
Stockpile #2										
Lab #0126	02-18-04	0.7	6.2	6.7	86.4	98.5	0.2	92.0	725	4
Lab #0536	05-03-04	0.8	6.5	6.1	86.6	98.7	0.2	91.9	726	4
Stockpile #3										
Lab #0127	02-18-04	2.1	13.3	10.3	74.3	97.8	0.2	83.8	656	3
Lab #0537	05-03-04	1.4	14.5	12.0	72.1	98.0	0.2	82.9	650	3
S-S-S INC, LOUISIANA, MO										
Stockpile #1										
Lab #0041	02-04-04	6.0	47.9	10.7	35.4	97.9	0.2	53.8	421	2
Lab #0194	03-01-04	6.0	46.9	10.4	36.7	98.5	0.2	54.7	431	2
Lab #0410	04-15-04	6.0	44.9	10.1	39.0	96.6	0.5	56.3	435	6
Lab #0573	05-07-04	5.1	47.9	10.5	36.5	98.2	0.3	54.8	430	3
T & M STONE LLC, FAIR PLAY, MO										
Stockpile #2										
Lab #0036	02-03-04	0.1	37.5	17.6	44.8	96.4	0.1	64.7	499	1
Lab #0296	03-24-04	0.1	34.9	20.7	44.3	96.2	0.1	65.4	504	1
Lab #0616	05-12-04	0.1	46.8	17.4	35.7	97.2	0.1	57.8	450	1
TABLE ROCK ASPHALT CONST CO INC, BRANSON, MO										
Stockpile #1										
Lab #0272	03-15-04	8.5	42.3	7.2	42.0	85.6	9.7	56.9	390	110
Lab #0499	04-27-04	8.4	44.8	6.8	40.0	85.7	10.2	55.3	379	113
Lab #0811	06-11-04	0.7	43.2	8.8	47.3	84.1	10.0	63.4	426	127
TABLE ROCK ASPHALT CONST CO INC-KIM, BRANSON, MO										
TAYLOR QUARRIES, LOCKWOOD, MO										
Stockpile #1										
Lab #0199	03-01-04	3.4	50.0	12.5	34.1	93.8	0.8	54.1	406	9
Lab #0630	05-17-04	5.8	43.9	13.3	37.0	91.2	0.8	56.0	408	9
TOWER ROCK STONE CO, SCOTT CITY, MO										
Stockpile #2										
Lab #0552	05-03-04	1.8	43.0	12.8	42.4	96.9	1.6	60.8	472	19
Stockpile #3										
Lab #0551	05-03-04	0.8	41.5	14.1	43.6	96.3	1.3	62.4	481	16
Lab #0754	06-09-04	0.5	42.2	14.4	42.9	96.6	0.8	62.1	480	10
Lab #0847	07-01-04	0.6	42.5	14.5	42.4	96.0	0.9	61.7	474	11
TOWER ROCK STONE CO, STE GENEVIEVE, MO										
Stockpile #1										
Lab #0172	02-25-04	2.3	47.0	15.9	34.8	98.5	0.2	56.1	442	2
Lab #0350	03-31-04	0.9	42.4	13.9	42.8	96.4	0.9	61.7	476	11
Lab #0820	06-15-04	2.0	42.6	15.5	39.9	97.9	0.7	59.9	469	8
Stockpile #2										
Lab #0173	02-25-04	0.7	42.9	12.8	43.6	98.3	7.9	62.0	488	98
Lab #0351	03-31-04	0.4	44.9	10.9	43.8	97.6	7.9	61.6	481	97

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AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JANUARY 1 THROUGH JUNE 30, 2004

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										
Stockpile #1										
Lab #0221	03-08-04	0.2	53.0	9.9	36.9	77.7	0.7	56.1	349	8
Lab #0365	04-09-04	0.1	55.8	10.2	33.9	82.4	0.9	54.0	356	10
Lab #0656	05-20-04	0.2	51.4	11.6	36.8	79.3	1.0	56.6	359	11
Lab #0794	06-14-04	0.3	56.3	10.9	32.5	86.0	0.4	53.1	365	4
TWIN LAKES QUARRIES INC, MOUNTAIN HOME, AR										
UEHLIN QUARRY, AMAZONIA, MO										
Stockpile #1										
Lab #0437	04-20-04	0.6	9.6	9.0	80.8	73.2	2.5	88.6	519	44
Lab #0693	05-26-04	0.1	15.7	12.2	72.0	75.2	2.1	83.2	501	35
UNITED SUPPLIERS, ELDORA, IA										
VULCAN MATERIALS, JONESBORO, IL										
Stockpile #1										
Lab #0688	05-27-04	3.3	43.8	12.4	40.5	98.8	0.5	58.9	465	6
Lab #0825	06-14-04	3.5	41.9	11.9	42.7	98.8	0.5	60.3	477	6
WADE AG PRODUCTS-MAIN OFC, LACYGNE, KS										
Stockpile #2										
Lab #0262	03-17-04	3.0	47.0	9.1	40.9	81.0	1.3	58.1	377	15
WADE AG PRODUCTS Q DREXEL, LACYGNE, KS										
Stockpile #1										
Lab #0204	03-10-04	2.7	46.8	8.2	42.3	79.5	1.2	58.9	375	14
Lab #0524	05-04-04	3.2	44.9	9.1	42.8	81.4	1.2	59.5	387	14
WADE AG PRODUCTS Q PLEASANTON, LACYGNE, KS										
Stockpile #1										
Lab #0263	03-17-04	4.2	49.3	7.9	38.6	79.3	0.7	55.7	353	8
FRED WEBER INC.-AUBURN QUARRY, ELSBERRY, MO										
FRED WEBER INC.-BLUFF CITY MINERALS, ALTON, IL										
Stockpile #1										
Lab #0430	04-20-04	0.0	3.1	3.5	93.4	91.0	2.4	96.3	701	46
Lab #0638	05-20-04	0.1	4.3	6.4	89.2	90.8	2.8	94.1	684	53
FRED WEBER, INC - FOLEY QUARRY, FOLEY, MO										
FRED WEBER INC-NORTH QUARRY, MARYLAND HEIGHTS, MO										
Stockpile #1										
Lab #0170	02-23-04	1.1	1.8	2.4	94.7	92.9	1.6	96.6	718	31
Lab #0348	03-30-04	0.3	8.4	14.2	77.1	92.5	1.4	87.7	649	25
Lab #0544	05-05-04	0.3	6.6	13.4	79.7	88.0	0.3	89.4	629	5
WIELAND HAULING INC - PRINCETON, BETHANY, MO										
Stockpile #1										
Lab #0766	06-07-04	6.6	46.0	9.2	38.2	79.3	1.2	55.2	350	13
WILKERSON BROS QUARRY, PARIS, MO										
Stockpile #1										
Lab #0149	02-25-04	5.7	48.2	12.4	33.7	84.4	0.3	53.2	359	3
Lab #0316	03-25-04	7.3	49.4	11.5	31.8	83.4	0.2	51.1	341	2
Lab #0513	04-29-04	8.3	49.6	10.6	31.5	83.9	0.1	50.3	337	1
Lab #0700	05-28-04	9.8	47.4	11.0	31.8	86.0	0.1	50.3	346	1

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**AGRICULTURAL LIMING MATERIALS SAMPLED FROM
JANUARY 1 THROUGH JUNE 30, 2004**

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
WILLIAMSVILLE STONE CO, POPLAR BLUFF, MO										
Stockpile #1										
Lab #0467	04-28-04	1.2	39.9	12.7	46.2	94.9	11.2	63.8	484	143
Lab #0557	05-04-04	1.2	41.0	13.0	44.8	94.6	11.1	62.9	476	140
Lab #0578	05-12-04	1.1	41.5	13.0	44.4	95.2	11.4	62.6	477	143
Lab #0685	05-24-04	0.2	33.6	16.1	50.1	94.8	11.2	68.2	517	153
Lab #0829	06-16-04	0.2	32.6	16.9	50.3	94.3	11.5	68.6	517	158

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TABLE 2

AGRICULTURAL LIMING MATERIALS SAMPLED FROM
JANUARY 1 THROUGH JUNE 30, 2004

Dealer and Producer	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
AG DISTRIBUTORS, CATRON, MO										
VULCAN MATERIALS, JONESBORO, IL										
Lab #0471	04-29-04	3.5	42.4	12.9	41.2	98.1	0.8	59.5	467	10
Lab #0834	06-22-04	3.5	43.9	11.9	40.8	97.7	0.5	58.9	460	6
RUBLE ROCK & LIME, INC, PATTERSON, MO										
Lab #0470	04-29-04	5.5	13.1	22.3	59.1	101.6	12.1	75.8	616	183
AGRI ENTERPRISES, LICKING, MO										
SPRINGFIELD UNDERGROUND, INC., SPRINGFIELD, MO										
Lab #0217	03-10-04	0.1	3.4	9.9	86.6	98.1	0.3	93.4	733	6
Lab #0704	05-26-04	1.1	10.8	9.5	78.6	98.3	0.2	87.0	684	3
AGRI SERVICES OF LEBANON, LEBANON, MO										
CONCO QUARRIES INC Q US 160, WILLARD, MO										
Lab #0143	02-25-04	0.1	11.7	14.5	73.7	97.3	0.2	85.3	664	3
Lab #0390	04-14-04	0.1	9.3	15.0	75.6	98.4	0.1	86.9	684	2
BLAIR FEED & GRAIN INC, NEW MELLE, MO										
MAGRUDER LIMESTONE CO Q TROY, TROY, MO										
Lab #0707	05-25-04	6.6	45.1	10.0	38.3	91.9	2.1	55.6	409	23
BOYLES FARM SUPPLY, FISK, MO										
MIDWEST AGRI-CHEMICO, CAPE GIRARDEAU, MO										
Lab #0619	05-17-04	0.6	9.9	9.5	80.0	91.0	4.0	88.2	642	71
BOLIVAR FARMERS EXCHANGE, BOLIVAR, MO										
CONCO QUARRIES INC Q US 160, WILLARD, MO										
Lab #0295	03-24-04	0.1	14.3	16.5	69.1	96.9	0.2	82.6	640	3
Lab #0615	05-12-04	0.3	14.9	17.3	67.5	97.3	0.2	81.6	635	3
BOLLINGER COUNTY COOP, MARBLE HILL, MO										
FRED WEBER INC.-BLUFF CITY MINERALS, ALTON, IL										
Lab #0554	05-04-04	0.2	8.3	10.0	81.5	91.5	3.8	89.6	656	68
BOOTHEEL LIMESTONE, KENNETT, MO										
ARKANSAS LIME COMPANY, INC., BATESVILLE, AR										
Lab #0778	06-10-04	4.6	42.0	14.0	39.4	94.4	0.8	58.3	440	9
BOOTHEEL LIMESTONE - SENATH, KENNETT, MO										
RUBLE ROCK & LIME INC, PATTERSON, MO										
Lab #0779	06-10-04	5.0	12.9	22.4	59.7	101.4	12.1	76.4	619	185
CENTRAL MISSOURI AGRISERVICE LLC, SLATER, MO										
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Lab #0379	04-15-04	1.6	19.0	3.7	75.7	91.0	1.2	82.7	602	20
DOUG CHILDERS, GREEN CITY, MO										
KNOX COUNTY STONE CO, EDINA, MO										
Lab #0191	03-01-04	9.0	37.6	12.7	40.7	90.5	2.8	57.7	418	32
DELTA GROWERS ASSN-EAST PRAIRIE, CHARLESTON, MO										
VULCAN MATERIALS, JONESBORO, IL										
Lab #0460	04-27-04	1.6	42.7	13.3	42.4	95.7	1.4	61.1	467	17
RUBLE ROCK & LIME INC, PATTERSON, MO										
Lab #0461	04-27-04	5.2	13.5	22.8	58.5	101.1	12.1	75.6	611	183
Lab #0830	06-17-04	6.3	12.4	22.9	58.4	100.1	11.8	75.2	603	178
TOWER ROCK STONE CO, SCOTT CITY, MO										
Lab #0831	06-17-04	2.7	41.6	13.3	42.4	95.2	1.0	60.8	463	12

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JANUARY 1 THROUGH JUNE 30, 2004

Dealer and Producer	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
DELTA GROWERS ASSOCIATION, MCMULLIN, MO										
FRED WEBER INC.-BLUFF CITY MINERALS, ALTON, IL										
Lab #0566	05-11-04	0.2	5.3	6.5	88.0	90.8	2.7	93.2	677	50
EAKIN LIME SERVICE, BELL CITY, MO										
TOWER ROCK STONE CO, SCOTT CITY, MO										
Lab #0620	05-17-04	1.6	43.6	13.7	41.1	96.8	1.7	60.2	466	20
FARMERS COOPERATIVE ASSN #301, SULLIVAN, MO										
MISSOURI LIME AND MATERIAL CO. ANTIRE QUARRY, EUREKA, MO										
Lab #0076	02-11-04	0.0	0.4	3.9	95.7	97.5	5.7	98.1	765	112
FARMERS PRODUCERS EXCHANGE-CONWAY, LEBANON, MO										
CONCO QUARRIES INC Q US 160, WILLARD, MO										
Lab #0339	03-29-04	0.2	11.8	14.8	73.2	98.2	0.2	85.0	668	3
FOWLER ELEVATOR, UNIONVILLE, MO										
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Lab #0025	01-14-04	1.3	14.3	4.1	80.3	90.7	1.1	86.3	626	19
GAGE'S FERTILIZER & GRAIN INC, BETHANY, MO										
MK MINERALS INC., MANHATTAN, KS										
Lab #0359	04-05-04	0.0	0.5	0.6	98.9	87.7	0.4	99.4	697	8
Lab #0593	05-11-04	0.0	0.5	1.1	98.4	88.4	0.8	99.2	701	16
GIBSON LIME CO-DEXTER, DEXTER, MO										
RUBLE ROCK & LIME INC, PATTERSON, MO										
Lab #0466	04-28-04	4.6	15.1	23.1	57.2	101.4	12.1	74.8	607	181
Lab #0750	06-08-04	8.0	14.7	19.5	57.8	100.1	12.2	73.2	586	179
TOWER ROCK STONE CO, SCOTT CITY, MO										
Lab #0465	04-28-04	4.7	43.5	13.2	38.6	97.3	1.1	57.4	447	13
Lab #0748	06-08-04	2.8	42.8	12.8	41.6	94.9	1.2	60.0	455	14
WILLIAMSVILLE STONE CO, POPLAR BLUFF, MO										
Lab #0464	04-28-04	1.4	38.4	13.4	46.8	94.1	10.8	64.4	485	139
Lab #0749	06-08-04	1.0	39.5	13.5	46.0	95.1	10.4	64.0	487	133
GRAY'S FARM SERVICE, NAYLOR, MO										
RUBLE ROCK & LIME INC, PATTERSON, MO										
Lab #0713	06-01-04	7.4	12.9	22.6	57.1	102.1	12.0	73.9	603	177
Lab #0840	06-28-04	7.0	14.7	22.3	56.0	97.3	12.2	73.1	569	178
MIDWEST AGRI-CHEMICO, CAPE GIRARDEAU, MO										
Lab #0841	06-28-04	1.2	8.4	7.6	82.8	88.4	3.5	89.5	633	63
HAWK FERTILIZER, BOLIVAR, MO										
CONCO QUARRIES INC Q US 160, WILLARD, MO										
Lab #0294	03-24-04	0.1	14.9	17.2	67.8	98.0	0.2	81.8	642	3
Lab #0614	05-12-04	0.0	14.9	18.2	66.9	98.5	0.2	81.5	643	3
HEARTLAND APPLICATION, SIKESTON, MO										
TOWER ROCK STONE CO, SCOTT CITY, MO										
Lab #0781	06-11-04	0.6	44.8	11.5	43.1	96.3	2.1	61.2	471	26
HEIMSOOTH AG SERVICE, CORDER, MO										
MID-MISSOURI LIMESTONE, INC.-HOUSTO, KINGDOM CITY, MO										
Lab #0190	03-02-04	6.1	48.8	10.5	34.6	89.0	0.2	53.1	378	2
Lab #0302	03-24-04	6.7	49.1	11.0	33.2	92.3	0.2	52.1	385	2

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JANUARY 1 THROUGH JUNE 30, 2004

Dealer and Producer	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
LOUIS HERZTING JR, FREEBURG, MO										
SPRINGFIELD UNDERGROUND, INC., SPRINGFIELD, MO										
Lab #0427	04-13-04	0.2	6.0	10.3	83.5	98.5	0.2	91.2	718	4
Lab #0588	05-13-04	0.6	16.0	11.7	71.7	98.1	0.2	82.7	649	3
Lab #0745	06-03-04	0.5	7.1	6.7	85.7	98.0	0.2	91.5	717	4
HOFFMAN & REED INC, TRENTON, MO										
MK MINERALS INC., MANHATTAN, KS										
Lab #0428	04-20-04	0.3	0.3	0.8	98.6	88.1	0.5	99.2	699	10
Lab #0653	05-20-04	0.0	0.7	1.0	98.3	87.4	0.8	99.1	693	16
KELLY LIME & ROCK, LA PLATA, MO										
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Lab #0162	02-25-04	2.7	42.0	9.5	45.8	91.5	1.5	62.0	454	19
Lab #0375	04-12-04	2.3	38.7	9.8	49.2	91.2	1.8	64.8	472	23
Lab #0660	05-21-04	2.4	41.0	10.3	46.3	91.1	1.8	62.7	457	23
Lab #0799	06-15-04	2.8	42.1	9.2	45.9	91.2	1.9	61.9	452	24
KEN MO AG CENTER, KENNETT, MO										
RUBLE ROCK & LIME INC, PATTERSON, MO										
Lab #0686	05-25-04	4.3	10.6	24.4	60.7	100.6	11.8	78.0	628	184
KEN MO AG CENTER - (WHITE OAK), KENNETT, MO										
RUBLE ROCK & LIME INC, PATTERSON, MO										
Lab #0472	04-29-04	4.7	13.0	23.2	59.1	99.7	12.0	76.3	608	183
Lab #0780	06-10-04	6.3	12.4	22.6	58.7	100.5	12.3	75.4	606	185
KINDER PLANT FOOD, LICKING, MO										
RUBLE ROCK & LIME INC, PATTERSON, MO										
Lab #0214	03-10-04	2.8	11.5	24.1	61.6	98.3	12.0	78.9	621	189
Lab #0703	05-26-04	2.9	11.9	26.0	59.2	100.4	11.7	77.8	625	182
LEGRAND FERTILIZER, POPLAR BLUFF, MO										
VULCAN MATERIALS, JONESBORO, IL										
Lab #0839	06-28-04	6.1	41.4	12.1	40.4	94.3	1.0	58.0	438	12
LINNEMAN LIME & FERT, SALISBURY, MO										
NORRIS AGGREGATE PRODUCTS CO - WEST, HUNTSVILLE, MO										
Lab #0358	04-05-04	0.8	40.6	16.2	42.4	97.6	1.9	62.3	486	24
MFA AGRI SERVICE, BENTON, MO										
TOWER ROCK STONE CO, SCOTT CITY, MO										
Lab #0459	04-27-04	2.9	42.6	14.1	40.4	93.7	1.1	59.5	446	13
Lab #0842	06-30-04	2.1	44.6	12.0	41.3	91.7	1.3	59.7	438	16
MFA AGRI SERVICE, BERNIE, MO										
VULCAN MATERIALS, JONESBORO, IL										
Lab #0563	05-06-04	6.2	42.4	10.8	40.6	99.1	0.9	57.7	457	10
RUBLE ROCK & LIME INC, PATTERSON, MO										
Lab #0562	05-06-04	6.3	18.3	20.4	55.0	100.7	12.0	71.8	579	172
MFA AGRI SERVICE, BETHANY, MO										
MK MINERALS INC., MANHATTAN, KS										
Lab #0063	02-11-04	0.0	0.5	1.8	97.7	85.4	0.9	98.9	676	18
Lab #0362	04-05-04	0.1	1.2	2.9	95.8	85.4	0.6	97.8	668	12
Lab #0721	06-02-04	0.0	1.2	3.4	95.4	83.8	0.7	97.7	655	14

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		+8	-8+40	-40+60	-60				ENM	EMg
MFA AGRI SERVICE, BROOKFIELD, MO										
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Lab #0011	01-08-04	2.9	16.5	3.9	76.7	90.6	1.3	83.2	603	22
Lab #0065	02-13-04	2.6	17.4	4.1	75.9	90.8	1.3	82.7	601	22
Lab #0646	05-18-04	1.7	16.4	4.8	77.1	91.5	1.2	84.1	615	20
Lab #0726	06-04-04	0.9	16.3	5.2	77.6	90.4	1.2	84.8	613	20
MFA AGRI SERVICE, BROWNING, MO										
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Lab #0064	02-13-04	1.8	16.8	4.5	76.9	90.3	1.1	83.8	605	18
Lab #0661	05-21-04	1.5	17.2	5.0	76.3	90.9	1.2	83.6	608	20
Lab #0800	06-16-04	1.9	17.9	4.6	75.6	91.0	1.2	82.8	603	20
MFA AGRI SERVICE-WEST, HALE, MO										
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Lab #0511	05-07-04	1.4	20.0	4.2	74.4	91.0	1.3	81.9	596	21
MFA AGRI SERVICE, KIRKSVILLE, MO										
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Lab #0027	01-15-04	1.8	21.0	3.2	74.0	91.9	1.2	81.2	597	19
Lab #0330	03-31-04	2.0	17.8	4.0	76.2	91.3	1.2	83.1	607	20
Lab #0701	05-25-04	1.4	18.3	4.7	75.6	91.0	1.6	83.0	604	27
MFA AGRI SERVICE, LANCASTER, MO										
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Lab #0329	03-31-04	1.9	20.1	3.7	74.3	91.6	1.2	81.5	598	20
MFA AGRI SERVICE, MACON, MO										
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Lab #0161	02-25-04	0.1	3.9	6.1	89.9	88.7	1.8	94.5	671	34
Lab #0333	04-01-04	2.0	18.3	3.6	76.1	89.1	1.2	82.8	590	20
Lab #0501	05-05-04	1.9	20.0	4.1	74.0	89.7	1.3	81.5	585	21
MFA AGRI SERVICE, MILAN, MO										
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Lab #0024	01-14-04	1.5	16.2	4.3	78.0	91.1	1.2	84.6	617	20
Lab #0192	03-01-04	1.7	15.1	4.4	78.8	90.9	1.1	85.2	620	19
Lab #0702	05-25-04	1.4	18.7	5.6	74.3	91.2	1.1	82.3	601	18
MFA AGRI SERVICE, MOBERLY, MO										
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Lab #0012	01-12-04	2.2	19.3	3.8	74.7	91.4	1.2	81.8	598	20
Lab #0156	02-24-04	2.0	19.2	3.7	75.1	90.6	1.2	82.1	595	20
Lab #0647	05-19-04	3.1	16.8	4.7	75.4	91.2	1.1	82.4	601	18
MFA AGRI SERVICE, NEW CAMBRIA, MO										
FRED WEBER INC.-BLUFF CITY MINERALS, ALTON, IL										
Lab #0504	05-05-04	1.7	19.6	3.9	74.8	91.8	1.2	82.0	603	20
MFA AGRI SERVICE, ODESSA, MO										
MK MINERALS INC., MANHATTAN, KS										
Lab #0444	04-26-04	0.0	0.5	0.7	98.8	87.8	0.6	99.3	698	12
Lab #0786	06-11-04	1.1	20.1	4.0	74.8	92.1	1.0	82.2	606	16
MFA AGRI SERVICE, OWENSVILLE, MO										
CRAWFORD LIME & MATERIAL CO, CUBA, MO										
Lab #0583	05-12-04	8.0	44.3	7.9	39.8	87.9	10.5	55.6	391	117

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		+8	-8+40	-40+60	-60				ENM	EMg
MFA AGRI SERVICE, ST CLAIR, MO										
MMISSOURI LIME AND MATERIAL CO., EUREKA, MO										
Lab #0586	05-12-04	0.1	5.4	6.6	87.9	91.3	2.6	93.2	681	48
MFA EXCHANGE, SALEM, MO										
RUBLE ROCK & LIME INC, PATTERSON, MO										
Lab #0225	03-10-04	7.5	19.9	21.2	51.4	102.4	12.1	69.1	566	167
Lab #0492	04-27-04	4.5	16.8	24.4	54.3	99.3	11.8	73.1	581	173
Lab #0818	06-14-04	8.8	16.5	21.0	53.7	98.9	12.0	70.4	557	169
MFA AGRI SERVICE, TRENTON, MO										
MK MINERALS INC., MANHATTAN, KS										
Lab #0596	05-12-04	0.0	0.8	3.0	96.2	86.6	0.5	98.2	680	10
MFA AGRI SERVICE, UNIONVILLE, MO										
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Lab #0026	01-14-04	2.4	16.7	4.0	76.9	91.3	1.2	83.5	610	20
Lab #0599	05-13-04	1.3	14.9	4.7	79.1	91.4	1.1	85.6	626	19
Lab #0765	06-07-04	1.0	21.6	4.6	72.8	90.2	1.2	81.0	584	19
MADISON FARM SUPPLY, FREDERICKTOWN, MO										
ASC MINERALS PROCESSING, ALLERTON, IL										
Lab #0469	04-28-04	0.1	1.0	2.1	96.8	88.1	0.4	98.3	693	8
MRM AG SERVICE INC, EAST PRAIRIE, MO										
RUBLE ROCK & LIME INC, PATTERSON, MO										
Lab #0463	04-27-04	5.2	10.8	26.8	57.2	100.4	12.2	76.0	610	185
Lab #0843	06-30-04	8.6	16.2	20.2	55.0	97.6	12.0	71.2	556	171
VULCAN MATERIALS, JONESBORO, IL										
Lab #0462	04-27-04	4.8	41.4	13.5	40.3	94.1	1.1	58.8	442	13
Lab #0844	06-30-04	0.9	34.1	14.0	51.0	93.9	11.3	67.9	510	154
WILLIAMSVILLE STONE CO, POPLAR BLUFF, MO										
Lab #0845	06-30-04	0.3	37.4	14.2	48.1	94.8	11.5	66.0	500	152
MYRTLE FERTILIZER, MYRTLE, MO										
HELM FERTILIZER, MEMPHIS, TN										
Lab #0827	06-15-04	0.6	9.0	9.3	81.1	91.8	3.8	88.9	653	68
CONCO QUARRIES INC Q US 160, WILLARD, MO										
Lab #0561	05-05-04	0.8	10.5	10.9	77.8	96.8	0.2	87.0	673	3
LEO O'LAUGHLIN, MACON, MO										
CENTRAL STONE COMPANY - HUNTINGTON, HANNIBAL, MO										
Lab #0157	02-25-04	1.9	31.1	13.2	53.8	94.0	0.8	69.5	523	11
Lab #0269	03-17-04	6.0	31.2	11.8	51.0	96.2	1.5	65.9	507	20
Lab #0447	04-26-04	2.2	31.5	12.2	54.1	93.5	1.0	69.3	518	14
Lab #0503	05-05-04	3.5	32.6	10.2	53.7	94.6	1.2	68.0	514	16
Lab #0768	06-08-04	2.0	31.1	13.1	53.8	93.1	0.7	69.4	517	10
LEO O'LAUGHLIN INC, QUARRY DIVISION, SHELBINA, MO										
Lab #0160	02-25-04	8.1	44.9	8.9	38.1	90.1	1.5	54.7	394	16
Lab #0270	03-17-04	8.2	46.8	8.8	36.2	90.8	1.4	53.2	386	15
Lab #0448	04-26-04	7.6	47.1	8.4	36.9	90.4	1.5	53.7	388	16
Lab #0502	05-05-04	6.7	46.9	9.2	37.2	90.7	1.6	54.4	395	17
Lab #0769	06-08-04	8.6	46.4	9.0	36.0	90.0	1.6	53.0	382	17

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		+8	-8+40	-40+60	-60				ENM	EMg
LEO O'LAUGHLIN INC, MARCELINE, MO										
CENTRAL STONE COMPANY - HUNTINGTON, HANNIBAL, MO										
Lab #0154	02-23-04	3.4	31.0	11.9	53.7	92.6	1.1	68.6	508	15
Lab #0331	04-01-04	4.7	31.5	12.9	51.3	95.2	1.4	66.7	508	19
Lab #0505	05-05-04	3.6	32.3	12.5	51.6	93.6	1.3	67.2	503	17
Lab #0796	06-15-04	4.7	31.7	11.4	52.2	94.2	1.2	67.0	505	16
LEO O'LAUGHLIN INC, QUARRY DIVISION, SHELBINA, MO										
Lab #0153	02-23-04	9.4	46.3	8.1	36.2	90.9	1.6	52.6	383	17
Lab #0332	04-01-04	8.5	46.3	8.4	36.8	90.5	1.3	53.4	387	14
Lab #0506	05-05-04	6.0	45.3	9.8	38.9	90.6	1.7	56.1	407	19
Lab #0797	06-15-04	5.3	44.9	10.2	39.6	89.3	1.4	56.9	407	16
OLD MILL GRAIN & SEED CO, HARRISONVILLE, MO										
MK MINERALS INC., MANHATTAN, KS										
Lab #0186	03-02-04	0.1	1.6	3.7	94.6	83.9	0.9	97.2	653	17
RAY CARROLL CO-CARROLLTON, RICHMOND, MO										
MK MINERALS INC., MANHATTAN, KS										
Lab #0207	03-11-04	0.1	0.4	1.0	98.5	82.7	1.1	99.2	656	22
REIDLINGER LIME & GRAVEL, CONCEPTION JUNCTION, MO										
REIDLINGER LIME & GRAVEL, CONCEPTION JUNCTION, MO										
Lab #0062	02-12-04	5.8	41.8	8.8	43.6	83.1	2.6	59.3	394	31
JP ROSS COTTON CO-FRISCO, ESSEX, MO										
RUBLE ROCK & LIME INC, PATTERSON, MO										
Lab #0644	05-19-04	5.3	12.6	22.2	59.9	101.8	12.0	76.4	622	183
Lab #0833	06-22-04	5.6	13.4	26.2	54.8	100.3	11.9	73.9	593	176
SCHAEPERKOETTER STORE, MT STERLING, MO										
MID-MISSOURI LIMESTONE INC-MBQ, KINGDOM CITY, MO										
Lab #0304	03-23-04	4.1	49.4	11.5	35.0	96.4	2.5	54.3	418	27
Lab #0590	05-11-04	3.7	43.7	12.1	40.5	92.5	2.9	58.7	434	34
Lab #0782	06-07-04	6.1	46.1	9.8	38.0	96.0	1.7	55.4	426	19
S & S BEGGS LIME SERVICE-JACKSON, JACKSON, MO										
RUBLE ROCK & LIME INC, PATTERSON, MO										
Lab #0837	06-23-04	5.4	15.1	21.6	57.9	101.6	12.1	74.6	607	181
TOWER ROCK STONE CO, SCOTT CITY, MO										
Lab #0836	06-23-04	1.9	42.7	11.7	43.7	96.8	1.2	61.4	475	15
SEHLKE TRUCK SERVICE, KEYTESVILLE, MO										
NORRIS AGGREGATE PRODUCTS CO - EAST, HUNTSVILLE, MO										
Lab #0136	02-23-04	0.3	45.4	13.1	41.2	93.5	0.8	60.4	452	10
Lab #0357	04-05-04	0.3	44.8	14.2	40.7	94.0	0.8	60.4	454	10
Lab #0446	04-27-04	0.4	45.6	14.7	39.3	92.8	0.8	59.5	442	10
SOUTHEAST COOPERATIVE SERVICE, ADVANCE, MO										
MIDWEST AGRI-CHEMICO, CAPE GIRARDEAU, MO										
Lab #0835	06-23-04	0.2	8.0	8.0	83.8	91.6	2.7	90.6	664	49
SOUTHEAST COOPERATIVE SERVICE, BERTRAND, MO										
FRED WEBER INC.-BLUFF CITY MINERALS, ALTON, IL										
Lab #0746	06-02-04	0.1	7.6	8.2	84.1	91.6	2.9	90.9	666	53
SOUTHEAST COOPERATIVE SERVICE CO, DEXTER, MO										
FRED WEBER INC.-BLUFF CITY MINERALS, ALTON, IL										
Lab #0751	06-08-04	0.3	2.1	2.6	95.0	87.5	0.7	97.1	680	14

* Does not meet minimum specification for Agricultural Liming Material.

TABLE 2

AGRICULTURAL LIMING MATERIALS SAMPLED FROM
JANUARY 1 THROUGH JUNE 30, 2004

Dealer and Producer	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
SOUTHEAST COOPERATIVE SERVICE CO, MOREHOUSE, MO										
RUBLE ROCK & LIME INC, PATTERSON, MO										
Lab #0577	05-11-04	4.6	13.2	24.8	57.4	101.2	12.0	75.6	612	181
SOUTHEAST COOPERATIVE SERVICE, ORAN, MO										
FRED WEBER INC.-BLUFF CITY MINERALS, ALTON, IL										
Lab #0752	06-09-04	0.6	11.9	11.5	76.0	90.6	3.2	85.9	622	55
SOUTHEAST COOP SERVICE, PUXICO, MO										
RUBLE ROCK & LIME INC, PATTERSON, MO										
Lab #0555	05-04-04	5.1	12.3	24.0	58.6	100.6	12.2	76.1	612	186
TOWER ROCK STONE CO, SCOTT CITY, MO										
Lab #0556	05-04-04	2.2	41.9	14.5	41.4	97.6	1.4	60.6	471	17
STOVER MILLING, STOVER, MO										
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Lab #0203	03-09-04	4.0	15.5	3.5	77.0	91.3	1.3	83.0	606	22
SUR-GRO PLANT FOOD, KING CITY, MO										
SUR-GRO PLANT FOOD, KING CITY, MO										
Lab #0134	02-19-04	3.9	27.9	8.2	60.0	87.1	6.0	71.9	501	86
SUR-GRO PLANT FOOD, WESTON, MO										
MK MINERALS INC., MANHATTAN, KS										
Lab #0058	02-10-04	3.4	21.4	10.2	65.0	83.8	3.4	76.5	513	52
T & N INC, FORISTELL, MO										
T & N INC, FORISTELL, MO										
Lab #0078	02-13-04	0.1	2.5	4.9	92.5	87.8	0.7	96.1	675	13
WEST LIME & FERTILIZER, STEELVILLE, MO										
RUBLE ROCK & LIME INC, PATTERSON, MO										
Lab #0817	06-14-04	9.8	16.3	21.5	52.4	100.4	12.2	69.4	557	169
WOODY BOGLER LIME-ROSEBUD, ROSEBUD, MO										
MID-MISSOURI LIMESTONE INC-MBQ, KINGDOM CITY, MO										
Lab #0115	02-18-04	4.2	51.8	10.9	33.1	96.1	2.8	52.6	404	29
Lab #0303	03-23-04	3.9	49.4	10.6	36.1	96.3	3.3	54.8	422	36
Lab #0442	04-21-04	4.0	49.9	10.3	35.8	95.5	2.9	54.5	416	32
Lab #0591	05-11-04	4.9	44.3	10.1	40.7	91.9	3.0	57.8	425	35
Lab #0783	06-07-04	5.9	47.7	10.8	35.6	96.1	1.7	54.0	415	18
WORTHINGTON AG SERVICE, WORTHINGTON, MO										
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Lab #0028	01-15-04	2.4	18.4	3.3	75.9	91.5	1.3	82.5	604	21
YOUNGS PRODUCE, ALTON, MO										
FRED WEBER INC.-BLUFF CITY MINERALS, ALTON, IL										
Lab #0560	05-05-04	0.1	4.5	6.0	89.4	90.6	1.9	94.1	682	36

* 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

Ag Liming Material Costs at the Quarry

By

Joseph V. Slater

An Ag Liming Material Advisory Council Member asked last year at the end of our annual meeting why don't you regulate based on cost of ENM? The question was interesting and I decided to take a snapshot in time on the actual cost of ag lime priced at the quarry. I had our inspectors check the board price on their next normal inspection visit while securing their samples and record it on the ticket. I have compiled the information from around the state and it appears that based on per pound of ENM that can be guaranteed, the price is relatively and unexpectedly uniform. That price ranged from a high of 1.9 cents per pound of ENM to the low of .3 cents per pound, with the average cost being highest at 1.6 cents per pound and the low being .8 cents per pound. You might wonder how this equates to actual prices. The maximum price per ton was \$8.00 the lowest was \$1.30 overall and the means ran from a high of \$5.81 to the low of \$3.28. The data presented in the accompanying table is compiled from data around the state by inspector territory with the exception of the Southeast portion of the state which has too few quarries to be able to present the data without giving up someone's production numbers.

Territory	ENM			EMG			Cost/Ton Ag Lime			Cost/pound ENM		
	Min.	Ave.	Max.	Min.	Ave.	Max.	Min.	Ave.	Max.	Min.	Ave.	Max.
Northwest ¹	311	361	389	8	16	22	\$4.90	\$5.81	\$7.20	\$0.013	\$0.016	\$0.019
North Central ²	295	379	433	2	14	69	\$3.00	\$4.71	\$6.61	\$0.007	\$0.012	\$0.017
Northeast ³	279	439	657	2	29	94	\$2.34	\$3.28	\$5.15	\$0.005	\$0.008	\$0.014
Westcentral North ⁴	272	363	437	1	22	71	\$2.06	\$3.34	\$4.50	\$0.005	\$0.009	\$0.013
East Central ⁵	360	538	776	17	90	158	\$2.56	\$3.89	\$5.00	\$0.004	\$0.008	\$0.011
Westcentral South ⁶	283	392	502	1	27	135	\$1.30	\$4.63	\$5.26	\$0.003	\$0.012	\$0.018
Southwest ⁷	363	476	699	1	75	159	\$2.00	\$5.27	\$8.00	\$0.003	\$0.012	\$0.019
Average	309	421	556	4.5	39	101	\$2.59	\$4.42	\$5.96	\$0.006	\$0.011	\$0.016

¹ Burton Wilson

² Rodny Head

³ Virgil Hobbs

⁴ Allen Boehmer

⁵ Brad Vandeloecht

⁶ David Price

⁷ Jerry Ennis

What these results do not reflect is that the highest priced ag lime in the territory was not always the highest quality based on ENM content and the lowest price usually did not reflect the lowest quality by the same standard. Ag Lime is still a very cost effective for Missouri agricultural producers, but some areas are slightly more cost effective than others based on the price direct from the quarry.

It is my hope that producers continue to place emphasis on producing this high quality, valuable resource for the agricultural producers of the state. Producers do realize that this is not a waste by-product.

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This report also available on the web at:

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

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