

**Missouri
Agricultural Liming
Materials Report**

January 1 to June 30, 2013

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 January 1 through June 30, 2013. There were 496 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. Thirteen deficient samples are reported, all for excessive coarseness. There were three "stop sale" order's issued against producer stockpiles: all for excessive coarseness; two of the issued stop sale orders for coarseness were released.

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	748,503	1,378,145
2005	667,212	659,215	1,326,427
2006	839,305	774,665	1,613,969
2007	481,973	1,085,571	1,567,544
2008	373,490	727,861	1,101,351
2009	681,600	583,025	1,264,626
2010	446,530	1,321,861	1,768,392
2011	377,505	1,092,184	1,469,689
2012	748,274	1,962,906	2,711,180
2013	300,000*	1,700,000*	2,000,000*

* PRELIMINARY ESTIMATE

TABLE 1

AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JANUARY 1 THROUGH JUNE 30, 2013

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										
ADRIAN QUARRY LLC, CLINTON, MO										
ALBY QUARRY, CARLINVILLE, IL										
ALLEN QUARRIES INC, LOCKWOOD, MO										
Stockpile #1										
Lab #0223	04-01-13	0.9	50.6	15.5	33.0	92.9	0.2	55.0	408	2
AMERICAN ROCK, LLC, BRANSON, MO										
APAC - KANSAS, INC. - CAMERON, PLATTSBURG, MO										
Stockpile #1										
Lab #0079	02-13-13	1.4	42.2	9.5	46.9	77.7	1.7	63.2	393	21
Lab #0153	03-14-13	2.7	50.1	10.5	36.7	79.9	1.4	55.5	355	16
Lab #0256	04-15-13	2.0	46.2	9.5	42.3	79.2	1.4	59.6	377	17
APAC - KANSAS, INC. - GOWER, PLATTSBURG, MO										
Stockpile #3										
Lab #0080	02-13-13	4.5	47.9	9.6	38.0	81.9	0.9	55.7	365	10
Lab #0150	03-13-13	2.1	48.2	9.7	40.0	82.1	0.7	57.9	380	8
Lab #0257	04-15-13	2.4	47.7	9.6	40.3	81.6	0.9	58.0	379	10
APAC - KANSAS, INC. - KINGSTON, PLATTSBURG, MO										
Stockpile #1										
Lab #0045	02-05-13	2.7	45.7	10.4	41.2	86.7	0.7	58.9	408	8
Lab #0142	03-14-13	3.7	44.3	10.2	41.8	86.7	0.7	59.0	409	8
Lab #0423	05-29-13	2.5	46.5	10.2	40.8	88.3	1.0	58.5	414	12
Stockpile #2										
Lab #0206	03-27-13	2.1	52.5	10.3	35.1	87.3	0.4	54.4	380	4
Lab #0207	03-28-13	2.8	55.7	9.9	31.6	87.1	0.5	51.5	359	5
Lab #0208	03-29-13	2.6	55.2	9.3	32.9	84.8	0.6	52.3	355	6
Lab #0422	05-29-13	0.6	41.7	13.0	44.7	83.3	0.6	62.9	419	8
Stockpile #3										
Lab #0424	05-29-13	0.4	25.3	16.1	58.2	82.8	0.8	74.2	491	12
Lab #0470	06-11-13	0.6	21.9	16.0	61.5	85.3	0.5	76.6	523	8
APAC-KANSAS, INC - HARRISONVILLE, HARRISONVILLE, MO										
Stockpile #2										
Lab #0321	04-29-13	9.2	52.6	8.2	30.0	91.2	0.4	48.1	351	4
Lab #0404	05-21-13	4.1	53.4	10.5	32.0	90.6	0.4	51.7	374	4
APAC - KANSAS, INC. - LATHROP, PLATTSBURG, MO										
Stockpile #2										
Lab #0059	02-07-13	4.5	48.6	10.6	36.3	77.6	1.1	54.8	340	12
Lab #0125	03-08-13	3.7	47.7	12.1	36.5	73.5	1.5	55.7	327	17
Lab #0308	04-26-13	1.0	46.8	11.6	40.6	83.0	1.0	59.3	393	12
Lab #0449	06-06-13	0.2	47.3	13.0	39.5	87.1	0.9	59.1	412	11
Stockpile #3										
Lab #0060	02-07-13	9.6	50.7	8.9	30.8	72.2	1.4	48.8	282	14
Lab #0126	03-08-13	9.6	52.1	8.6	29.7	71.2	1.5	47.9	273	14
APAC - KANSAS, INC. - STANBERRY, PLATTSBURG, MO										
Stockpile #4										
Lab #0009	01-03-13	8.3	35.0	10.1	46.6	73.5	1.7	61.4	361	21
Lab #0010	01-16-13	0.4	48.5	9.9	41.2	73.0	1.9	59.3	346	23
Stockpile #5										
Lab #0397	05-20-13	0.1	48.2	12.8	38.9	71.1	1.5	58.6	333	18
APAC-CENTRAL INC.-N.HARRISON QUARRY, FAYETTEVILLE, AR										
Stockpile #1										
Lab #0387	05-21-13	1.1	50.2	14.0	34.7	94.9	0.2	55.7	422	2
APAC-CENTRAL INC. -VALLEY SPRINGS, FAYETEVILLE, AR										
Stockpile #1										
Lab #0386	05-21-13	0.7	45.6	13.8	39.9	95.6	0.2	59.6	456	2
APAC-MISSOURI, INC - BAGNELL 13, OVERLAND PARK, KS										
Stockpile #1										
Lab #0480	06-06-13	2.8	40.5	14.7	42.0	92.2	10.6	60.9	450	129
APAC-MISSOURI, INC. - BOONVILLE, OVERLAND PARK, KS										
Stockpile #1										
Lab #0016	01-28-13	5.5	52.8	12.1	29.6	93.4	0.1	50.1	374	1
Lab #0094	02-19-13	4.1	53.6	13.1	29.2	95.0	0.1	50.5	383	1
Lab #0128	03-12-13	6.3	51.9	11.4	30.4	93.8	0.1	50.2	377	1
Lab #0252	04-12-13	8.2	49.8	11.8	30.2	96.4	0.1	49.7	384	1
Lab #0304	05-01-13	5.6	45.7	12.9	35.8	95.5	0.1	55.0	420	1
Lab #0426	05-28-13	7.6	48.3	11.7	32.4	94.7	0.1	51.5	390	1
APAC - BRICKEY'S STONE, BLOOMSDALE, MO										
Stockpile #1										
Lab #0109	02-28-13	8.8	37.6	10.7	42.9	96.5	0.5	58.7	453	6
Lab #0370	05-14-13	16.4*	34.3	11.0	38.3	96.2	0.4	53.5	0	0

TABLE 1

AGRICULTURAL LIMING MATERIALS SAMPLED FROM
JANUARY 1 THROUGH JUNE 30, 2013

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
APAC - BRICKEY'S STONE, BLOOMSDALE, MO (continued)										
Lab #0450	06-03-13	8.5	34.0	12.8	44.7	96.6	0.4	60.9	470	5
Lab #0495	06-20-13	14.1*	35.8	10.8	39.3	98.2	0.5	54.7	0	0
APAC - KANSAS & MISSOURI -DEFIANCE, OVERLAND PARK, KS										
Stockpile #1										
Lab #0212	04-03-13	0.8	49.6	9.5	40.1	96.1	6.4	58.2	447	74
Lab #0463	06-06-13	1.9	45.8	9.3	43.0	96.8	6.3	60.0	465	76
APAC-MISSOURI, INC. - LINN CREEK, LINN CREEK, MO										
APAC-CENTRAL, INC. - BUSIEK, FAYETTEVILLE, AR										
APAC-MISSOURI, INC. - MARSHALL, MARSHALL, MO										
Stockpile #5										
Lab #0135	03-15-13	1.2	52.0	11.4	35.4	74.9	0.4	55.2	331	4
Lab #0238	04-09-13	1.5	44.1	12.6	41.8	74.3	0.3	60.4	359	4
Lab #0251	04-12-13	3.0	51.7	11.6	33.7	80.0	0.3	53.6	343	3
Lab #0331	05-08-13	0.6	63.7	11.8	23.9	93.3	0.2	46.9	350	2
Lab #0441	06-03-13	1.2	47.3	11.7	39.8	73.5	0.6	58.6	345	7
APAC-MISSOURI, INC.-MARSHALL (WEST), OVERLAND PARK, KS										
APAC-MISSOURI, INC - PETTIS QUARRY, OVERLAND PARK, KS										
Stockpile #2										
Lab #0007	01-08-13	12.7*	46.1	7.4	33.8	79.6	5.6	49.8	0	0
Stockpile #3										
Lab #0011	01-16-13	4.6	50.8	12.2	32.4	88.5	3.5	52.4	371	37
Lab #0015	01-17-13	7.7	53.0	10.5	28.8	89.6	4.0	48.4	347	39
Stockpile #4										
Lab #0006	01-08-13	11.3*	52.5	9.0	27.2	87.6	3.3	45.7	0	0
APAC-CENTRAL INC. - ROARK CREEK, FAYETTEVILLE, AR										
Stockpile #1										
Lab #0389	05-22-13	0.9	52.5	9.1	37.5	92.4	11.4	56.1	415	128
ARKANSAS LIME COMPANY, INC., BATESVILLE, AR										
Stockpile #1										
Lab #0161	03-20-13	7.1	34.8	13.6	44.5	97.1	0.3	61.4	477	4
ASH GROVE AGGREGATES-DEEPWATER, DEEPWATER, MO										
Stockpile #1										
Lab #0156	03-13-13	0.4	35.0	16.4	48.2	90.2	0.1	66.8	482	1
Lab #0405	05-22-13	0.5	35.3	14.7	49.5	88.0	0.1	67.1	473	1
ASH GROVES AGGREGATES-DEVER, BUTLER, MO										
Stockpile #1										
Lab #0250	04-08-13	1.7	40.5	13.8	44.0	92.5	0.4	62.4	462	5
Lab #0483	06-11-13	0.1	31.8	17.5	50.6	96.7	0.2	69.1	534	3
ASH GROVE AGGREGATES-FAIR GROVE, BUTLER, MO										
Stockpile #2										
Lab #0432	05-30-13	5.4	55.5	7.2	31.9	87.1	10.4	50.1	349	104
ASH GROVE AGGREGATES-FAIR PLAY, BUTLER, MO										
Stockpile #2										
Lab #0061	02-04-13	0.0	39.0	16.2	44.8	94.4	0.2	64.3	485	3
ASH GROVE AGGREGATES INC-S&K, BUTLER, MO										
Stockpile #2										
Lab #0086	02-14-13	0.5	45.9	14.5	39.1	82.9	0.4	59.3	393	5
Lab #0227	04-01-13	0.4	47.2	13.4	39.0	77.0	0.4	58.8	362	5
Lab #0403	05-20-13	0.5	45.2	14.1	40.2	82.1	0.5	60.0	394	6
ASH GROVE AGGREGATES INC-LACYGNE, BUTLER, MO										
Stockpile #1										
Lab #0377	05-15-13	0.1	38.9	10.6	50.4	81.5	1.5	66.5	433	20
Lab #0401	05-20-13	0.3	37.4	9.0	53.3	80.4	1.4	68.1	438	19
Lab #0484	06-12-13	0.3	41.0	10.7	48.0	84.0	1.4	64.7	435	18
ASH GROVE AGGREGATES INC-MARSHFIELD, BUTLER, MO										
ASH GROVE AGGREGATES INC-MONTEVALLO, BUTLER, MO										
Stockpile #1										
Lab #0084	02-11-13	0.4	36.5	16.9	46.2	92.8	0.2	65.5	486	3
Lab #0271	04-15-13	0.7	37.5	15.6	46.2	92.3	0.2	64.9	479	3
ASH GROVE AGGREGATES INC-OSCEOLA, BUTLER, MO										
Stockpile #1										
Lab #0062	02-06-13	2.6	46.7	11.1	39.6	88.1	1.0	57.9	408	12
Lab #0160	03-15-13	4.2	47.6	12.6	35.6	90.7	1.1	55.1	400	12
Lab #0349	05-06-13	3.0	49.6	10.7	36.7	90.3	1.6	55.5	401	18
ASH GROVE AGGREGATES INC-WHEATLAND, BUTLER, MO										
Stockpile #1										
Lab #0063	02-06-13	4.4	46.9	10.9	37.8	96.7	0.1	56.1	434	1
Lab #0163	03-20-13	7.9	46.8	9.8	35.5	97.1	0.2	53.1	412	2
Lab #0350	05-06-13	0.7	48.5	11.1	39.7	95.3	0.1	58.5	446	1

TABLE 1

AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JANUARY 1 THROUGH JUNE 30, 2013

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-WHEATLAND, BUTLER, MO (continued)										
Stockpile #2										
Lab #0064	02-06-13	0.2	45.0	13.6	41.2	95.9	0.1	60.6	465	1
Lab #0164	03-20-13	0.3	48.9	13.1	37.7	96.6	0.1	57.8	447	1
Lab #0351	05-06-13	0.2	44.0	14.2	41.6	96.6	0.1	61.1	472	1
ASH GROVE AGGREGATES INC-BUFFALO, BUTLER, MO										
Stockpile #1										
Lab #0353	05-08-13	8.3	42.2	9.6	39.9	91.0	11.0	56.2	409	124
BAILEY QUARRIES INC-CHESAPEAKE Q., MT VERNON, MO										
Stockpile #1										
Lab #0090	02-15-13	0.6	38.6	10.9	49.9	91.1	10.9	66.1	482	144
Lab #0371	05-14-13	0.3	42.0	11.8	45.9	92.0	10.9	63.5	467	138
Stockpile #4										
Lab #0089	02-15-13	6.4	37.1	8.2	48.3	90.0	10.6	62.5	450	132
BAILEY QUARRIES, INC -EUDORA QUARRY, REPUBLIC, MO										
Stockpile #1										
Lab #0049	02-05-13	0.3	41.5	16.6	41.6	94.4	0.1	61.9	468	1
Lab #0224	04-04-13	0.2	41.5	16.9	41.4	95.6	0.1	61.9	474	1
Lab #0492	06-10-13	0.1	37.1	11.7	51.1	91.2	11.4	67.4	492	154
Stockpile #2										
Lab #0493	06-10-13	0.1	41.0	17.3	41.6	95.4	0.2	62.2	475	2
BAILEY QUARRIES INC-JANE, REPUBLIC, MO										
Stockpile #2										
Lab #0031	02-01-13	0.2	42.5	10.9	46.4	91.2	11.0	63.6	464	140
Lab #0169	03-21-13	1.8	50.4	8.0	39.8	93.2	11.3	57.2	426	129
Lab #0494	06-11-13	5.2	53.8	12.5	28.5	97.4	0.1	49.5	385	1
BAILEY QUARRIES, INC.-MADRY QUARRY, VERONA, MO										
Stockpile #2										
Lab #0107	02-19-13	3.0	52.1	7.9	37.0	85.2	7.7	54.8	373	84
BAILEY QUARRIES - SARCOXIE, REPUBLIC, MO										
Stockpile #1										
Lab #0120	03-01-13	0.3	46.6	13.8	39.3	83.7	0.1	59.2	397	1
BAILEY QUARRIES INC-STOCKTON, STOCKTON, MO										
Stockpile #1										
Lab #0083	02-11-13	0.5	51.7	13.0	34.8	95.0	0.1	55.5	422	1
Lab #0270	04-15-13	0.2	53.5	13.6	32.7	94.8	0.1	54.2	411	1
BARBER & SONS AGGREGATES, LEE'S SUMMIT, MO										
Stockpile #1										
Lab #0274	04-22-13	7.3	51.7	10.2	30.8	87.3	0.5	49.8	348	5
Stockpile #2										
Lab #0242	04-11-13	11.0*	51.0	7.6	30.4	83.7	1.2	47.7	0	0
Lab #0317	05-02-13	8.8	48.1	7.5	35.6	78.5	1.6	52.1	327	17
Lab #0395	05-22-13	7.0	47.8	7.5	37.7	85.6	0.5	54.2	371	5
Lab #0399	05-24-13	6.7	49.5	9.1	34.7	82.1	0.8	52.5	345	8
BARRETT MATERIALS, INC. - BELLE, NEW HAVEN, MO										
BARRETT MATERIALS INC, NEW HAVEN, MO										
BASE ROCK MINERALS, BONNE TERRE, MO										
Stockpile #1										
Lab #0458	06-03-13	1.0	43.0	13.5	42.5	98.2	10.7	61.4	482	131
Stockpile #2										
Lab #0459	06-03-13	0.6	45.5	13.6	40.3	99.1	11.3	59.8	474	135
BOONE QUARRIES INC - WEST, COLUMBIA, MO										
BOONE QUARRIES INC - NORTH, COLUMBIA, MO										
BOONE QUARRIES - EAST, COLUMBIA, MO										
Stockpile #1										
Lab #0217	04-05-13	2.4	20.4	13.4	63.8	89.3	3.6	76.9	550	55
Lab #0382	05-22-13	1.8	12.2	11.1	74.9	95.0	2.9	84.6	643	49
BOONE QUARRIES INC. - SEDALIA, COLUMBIA, MO										
Stockpile #2										
Lab #0068	02-12-13	0.4	43.3	14.4	41.9	97.1	1.6	61.4	477	20
Lab #0136	03-15-13	1.4	57.4	8.7	32.5	87.0	6.5	52.1	362	68
Lab #0239	04-09-13	0.7	45.3	12.9	41.1	97.4	1.5	60.2	469	18
Lab #0332	05-08-13	0.5	46.4	11.9	41.2	91.2	4.8	59.9	437	58
Lab #0442	06-03-13	1.5	47.3	13.2	38.0	94.7	2.8	57.7	437	32
Stockpile #4										
Lab #0069	02-12-13	0.6	46.2	13.5	39.7	97.1	1.4	59.4	461	17
Lab #0071	02-13-13	0.6	48.3	13.6	37.5	98.0	1.0	57.7	453	12
Lab #0137	03-15-13	1.3	49.4	11.1	38.2	87.8	5.6	57.2	402	64
Lab #0240	04-09-13	0.7	42.8	12.8	43.7	97.8	1.4	62.1	486	17
Lab #0333	05-08-13	0.7	44.4	13.0	41.9	95.3	1.5	60.8	464	18

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JANUARY 1 THROUGH JUNE 30, 2013

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
BOONE QUARRIES INC. - SEDALIA, COLUMBIA, MO (continued)										
Stockpile #4										
Lab #0443	06-03-13	2.3	46.7	12.2	38.8	94.8	2.4	57.8	438	28
BUSSEN QUARRIES, INC.-ANTIRE QUARRY, ST LOUIS, MO										
Stockpile #1										
Lab #0100	02-19-13	0.0	0.7	1.7	97.6	96.8	5.7	98.8	765	113
Lab #0288	04-24-13	0.2	1.3	3.9	94.6	97.9	5.8	97.3	762	113
Lab #0440	05-29-13	0.1	0.7	3.8	95.4	89.8	4.4	97.9	703	86
Stockpile #2										
Lab #0101	02-19-13	3.7	46.4	8.4	41.5	95.5	3.4	58.1	444	40
Lab #0287	04-24-13	4.4	41.8	9.1	44.7	96.4	3.4	60.6	467	41
Lab #0434	05-29-13	4.8	43.3	8.0	43.9	96.0	3.4	59.5	457	40
Stockpile #3										
Lab #0289	04-24-13	1.0	1.9	4.9	92.2	97.2	6.0	95.6	744	115
CALCIUM PRODUCTS, INC., GILMORE CITY, IA										
CANTERA AGGREGATE INC, PLANO, IA										
Stockpile #1										
Lab #0467	06-10-13	0.5	39.0	10.7	49.8	75.3	0.5	66.0	397	7
CAPITAL QUARRIES CO., INC.-ARCADIA, JEFFERSON CITY, MO										
Stockpile #1										
Lab #0194	03-28-13	0.2	49.8	11.2	38.8	99.9	11.6	58.0	463	134
Lab #0485	06-10-13	0.5	47.7	12.5	39.3	99.6	11.5	58.7	468	135
CAPITAL QUARRIES, INC.- DANVILLE, JEFFERSON CITY, MO										
Stockpile #1										
Lab #0104	02-20-13	5.9	55.7	8.4	30.0	93.7	0.3	49.0	367	3
Lab #0417	05-23-13	7.5	57.4	8.0	27.1	94.5	0.4	46.3	350	4
CAPITAL QUARRIES CO., INC- EUGENE, JEFFERSON CITY, MO										
Stockpile #2										
Lab #0001	01-04-13	0.7	46.2	7.9	45.2	82.8	9.8	61.5	407	121
Lab #0004	01-08-13	0.1	43.9	8.4	47.6	84.5	9.8	63.6	430	125
Lab #0013	01-17-13	0.2	42.5	10.5	46.8	76.0	8.9	63.7	387	113
Lab #0022	01-29-13	0.1	42.6	10.5	46.8	76.7	9.1	63.8	391	116
Lab #0211	04-02-13	0.5	42.2	8.5	48.8	81.3	9.6	64.5	419	124
Lab #0436	05-28-13	0.2	40.0	8.3	51.5	79.3	9.6	66.5	422	128
CAPITAL QUARRIES CO., INC.-OWENSVIL, JEFFERSON CITY, MO										
Stockpile #1										
Lab #0023	01-30-13	1.1	41.8	9.7	47.4	79.8	9.4	63.7	406	120
Lab #0131	03-13-13	2.0	50.5	7.1	40.4	88.8	10.6	57.3	407	121
Lab #0215	04-04-13	1.9	45.4	9.7	43.0	89.4	10.8	60.2	430	130
Lab #0347	05-08-13	0.7	42.8	9.7	46.8	88.2	10.5	63.3	447	133
Lab #0460	06-04-13	0.7	37.8	10.2	51.3	89.6	10.7	66.9	479	143
CAPITAL QUARRIES, INC-STADIUM WEST, JEFFERSON CITY, MO										
CAPITAL QUARRIES INC-ROLLA Q #4, JEFFERSON CITY, MO										
Stockpile #2										
Lab #0213	04-04-13	0.3	12.5	10.6	76.6	82.5	9.8	86.1	568	169
Lab #0488	06-12-13	1.2	11.2	9.8	77.8	87.3	10.2	86.5	604	176
CAPITAL QUARRIES INC-CALIFORNIA Q#5, JEFFERSON CITY, MO										
Stockpile #1										
Lab #0002	01-04-13	0.2	46.4	12.3	41.1	93.1	1.1	60.1	447	13
Lab #0005	01-08-13	0.2	49.1	11.5	39.2	91.9	1.4	58.4	429	16
Lab #0014	01-17-13	0.2	46.9	12.3	40.6	93.4	0.9	59.7	446	11
Lab #0070	02-13-13	0.1	46.3	11.1	42.5	88.7	1.3	60.7	431	16
Lab #0226	04-04-13	0.3	44.7	13.6	41.4	93.3	1.3	60.7	453	16
Lab #0275	04-24-13	0.2	47.0	12.4	40.4	87.1	2.1	59.6	415	25
Lab #0427	05-30-13	0.2	45.5	11.4	42.9	92.7	1.4	61.1	453	17
CAPITAL QUARRIES INC.-HERMANN #14, JEFFERSON CITY, MO										
Stockpile #1										
Lab #0110	03-01-13	2.0	45.5	12.8	39.7	87.6	10.5	58.8	412	123
Lab #0132	03-14-13	1.7	45.3	7.2	45.8	88.3	10.7	61.4	434	131
Lab #0348	05-09-13	0.5	43.8	8.4	47.3	89.0	10.6	63.3	451	134
CAPITAL QUARRIES, INC - SALEM, JEFFERSON CITY, MO										
CAPITAL QUARRIES INC-SULLIVAN, JEFFERSON CITY, MO										
Stockpile #1										
Lab #0073	02-12-13	5.6	40.1	15.3	39.0	99.9	12.0	58.2	465	140
Lab #0306	05-01-13	8.0	44.2	12.6	35.2	102.1	11.6	53.8	440	125
CARROLL COUNTY STONE, INC., REPUBLIC, MO										
Stockpile #1										
Lab #0248	04-11-13	0.9	43.9	12.0	43.2	93.0	11.3	61.4	457	139
Lab #0388	05-21-13	0.6	43.8	10.0	45.6	86.3	10.4	62.6	432	130

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AGRICULTURAL LIMING MATERIALS SAMPLED FROM
JANUARY 1 THROUGH JUNE 30, 2013

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
CARTHAGE CRUSHED LIMESTONE, CARTHAGE, MO										
Stockpile #1										
Lab #0050	02-06-13	0.0	0.8	2.6	96.6	96.1	0.1	98.4	756	2
Lab #0374	05-16-13	0.2	4.1	4.5	91.2	95.9	0.1	94.9	728	2
Stockpile #2										
Lab #0051	02-06-13	1.4	2.3	2.0	94.3	96.1	0.1	96.1	739	2
Lab #0375	05-16-13	0.2	0.2	0.2	99.4	95.4	0.1	99.6	760	2
Stockpile #3										
Lab #0052	02-06-13	0.0	0.5	3.5	96.0	96.4	0.1	98.2	758	2
Lab #0376	05-16-13	0.0	0.2	0.6	99.2	96.4	0.1	99.6	768	2
CENTRAL STONE COMPANY - HUNTINGTON, HANNIBAL, MO										
Stockpile #2										
Lab #0221	04-05-13	0.2	29.1	14.8	55.9	85.2	0.3	72.1	491	4
Lab #0337	05-08-13	0.1	26.2	15.2	58.5	77.4	0.1	74.2	459	1
Stockpile #5										
Lab #0222	04-05-13	6.7	40.0	9.2	44.1	91.3	0.4	59.6	435	5
Lab #0338	05-08-13	9.2	37.2	8.9	44.7	93.3	0.3	59.3	443	4
CENTRAL STONE COMPANY-ANTONIA, HANNIBAL, MO										
CENTRAL STONE COMPANY - BETHEL, SHELBYVILLE, MO										
CENTRAL STONE COMPANY - FARMINGTON, FARMINGTON, MO										
Stockpile #3										
Lab #0457	06-03-13	0.3	0.8	2.8	96.1	91.1	3.1	98.0	714	61
CENTRAL STONE CO - FORT BELLE - #31, FLORISSANT, MO										
Stockpile #1										
Lab #0328	05-06-13	0.0	0.3	3.2	96.5	92.4	2.1	98.5	728	41
CENTRAL STONE COMPANY - PARIS, PARIS, MO										
Stockpile #2										
Lab #0302	04-26-13	4.6	48.2	11.9	35.3	86.0	0.2	54.5	375	2
Lab #0379	05-21-13	6.7	49.3	11.2	32.8	85.6	0.2	51.8	355	2
CENTRAL STONE COMPANY - CURRYVILLE, CURRYVILLE, MO										
Stockpile #2										
Lab #0091	02-06-13	1.2	39.6	11.6	47.6	87.1	1.3	64.5	449	17
Lab #0301	04-25-13	0.9	35.5	11.8	51.8	86.3	1.3	67.8	468	18
CENTRAL STONE COMPANY - PERRY, HANNIBAL, MO										
CENTRAL STONE COMPANY - EWING, HANNIBAL, MO										
CENTRAL STONE COMPANY - TAYLOR, TAYLOR, MO										
CLAY COUNTY MATERIALS, LIBERTY, MO										
CLEVER STONE CO, CLEVER, MO										
Stockpile #1										
Lab #0384	05-20-13	0.8	52.9	12.9	33.4	94.2	0.2	54.4	410	2
CONCO QUARRIES INC Q US 160, WILLARD, MO										
Stockpile #1										
Lab #0196	03-26-13	0.0	16.3	16.6	67.1	96.2	0.7	81.1	624	11
Lab #0431	05-30-13	0.1	11.9	15.5	72.5	97.4	0.8	84.8	661	14
Stockpile #3										
Lab #0197	03-26-13	14.4*	40.0	10.4	35.2	96.3	0.4	51.4	0	0
COUNTY LINE QUARRY, WELLSVILLE, MO										
Stockpile #1										
Lab #0300	04-25-13	5.9	44.6	8.8	40.7	90.0	5.8	57.1	411	66
Lab #0418	05-23-13	5.6	45.5	7.3	41.6	89.1	5.5	57.4	409	63
COUNTY LINE STONE, CASSVILLE, MO										
CRAWFORD LIME & MATERIAL CO, CUBA, MO										
Stockpile #1										
Lab #0074	02-12-13	2.5	48.4	8.8	40.3	88.4	10.8	57.7	408	125
Lab #0214	04-04-13	3.2	43.1	9.0	44.7	85.0	10.2	60.9	414	124
Lab #0416	05-22-13	2.1	47.4	8.7	41.8	88.9	10.9	58.9	419	128
CRIDER BROTHERS LIME CO., INC., EMINENCE, MO										
D & D SUPPLY, LONE JACK, MO										
DOSS & HARPER STONE CO., HOUSTON, MO										
Stockpile #2										
Lab #0245	04-08-13	0.3	50.8	13.1	35.8	87.8	10.7	56.4	396	121
DOSS & HARPER STONE CO, WEST PLAINS, MO										
Stockpile #1										
Lab #0246	04-09-13	0.3	58.7	8.0	33.0	87.3	10.5	52.5	366	110
DOUBLE EAGLE AGGREGATES, MILLER, MO										
DOUBLE EAGLE AGGREGATES CO., INC, MILLER, MO										
Stockpile #1										
Lab #0283	04-25-13	0.1	44.1	10.1	45.7	92.1	11.2	62.8	463	141
Lab #0373	05-15-13	0.1	45.2	7.1	47.6	91.0	10.6	63.2	460	134
Lab #0490	06-06-13	0.2	47.0	7.7	45.1	89.2	10.1	61.5	439	124

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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
E & S ROCK, LLC, HOLDEN, MO										
Stockpile #1										
Lab #0318	05-02-13	8.5	47.9	10.4	33.2	77.1	1.9	51.4	317	20
Stockpile #2										
Lab #0039	02-05-13	3.9	43.8	11.2	41.1	75.8	1.9	58.8	356	22
Lab #0127	03-11-13	8.2	49.5	8.7	33.6	75.9	1.8	51.2	311	18
Lab #0241	04-11-13	8.9	47.9	9.1	34.1	77.8	1.7	51.5	321	18
Lab #0398	05-24-13	0.8	47.2	11.2	40.8	73.9	1.7	59.3	351	20
FALL VALLEY STONE, INC., MT. VERNON, MO										
FISCHER QUARRY & HAULING, LLC, ST. MARY, MO										
Stockpile #1										
Lab #0113	02-28-13	2.3	49.2	15.2	33.3	97.7	0.1	54.7	428	1
Lab #0364	05-14-13	1.9	50.3	15.7	32.1	98.8	0.1	54.1	428	1
Lab #0456	06-03-13	2.9	49.4	15.5	32.2	98.6	0.1	53.9	425	1
GABEL STONE COMPANY, INC, WILLOW SPRINGS, MO										
GABEL STONE COMPANY INC., WILLOW SPRINGS, MO										
Stockpile #1										
Lab #0168	03-20-13	0.9	45.9	14.9	38.3	92.6	11.1	58.7	435	130
HEARTLAND MATERIALS LLC, JACKSON, MO										
Stockpile #1										
Lab #0145	03-12-13	0.4	36.3	16.5	46.8	97.7	1.9	65.8	514	25
Lab #0316	04-30-13	0.5	37.4	15.4	46.7	99.4	2.2	65.3	519	29
Lab #0472	06-11-13	0.5	39.5	15.2	44.8	98.4	2.0	63.8	502	26
HIGGINS QUARRY, LLC, LOOSE CREEK, MO										
Stockpile #2										
Lab #0255	04-16-13	0.8	42.7	11.1	45.4	88.3	10.5	62.7	443	132
Lab #0413	05-21-13	1.0	41.8	11.1	46.1	90.7	11.1	63.2	459	140
HILTY QUARRIES, INC - LEETON, CLINTON, MO										
Stockpile #3										
Lab #0085	02-12-13	0.5	42.8	11.6	45.1	93.1	0.3	62.8	467	4
HILTY QUARRIES, INC. - MONTROSE, CLINTON, MO										
Stockpile #1										
Lab #0166	03-21-13	5.8	55.4	8.8	30.0	78.9	1.1	49.1	310	11
Lab #0474	06-03-13	6.3	57.0	8.8	27.9	80.3	1.1	47.4	305	10
Stockpile #3										
Lab #0167	03-21-13	2.5	36.8	12.0	48.7	84.6	0.2	65.1	441	3
Lab #0475	06-03-13	3.5	38.4	11.7	46.4	86.2	0.2	63.0	435	3
HILTY QUARRIES, INC - SOUTH DELL, CLINTON, MO										
Stockpile #1										
Lab #0105	02-18-13	4.6	49.2	10.3	35.9	94.5	0.5	54.4	411	5
Lab #0229	04-02-13	4.5	50.0	10.4	35.1	94.9	0.4	53.8	409	4
Lab #0476	06-04-13	3.5	50.9	10.4	35.2	95.2	0.5	54.2	413	5
HILTY QUARRIES, INC - TIGHTWAD, CLINTON, MO										
Stockpile #1										
Lab #0157	03-13-13	0.9	43.5	11.4	44.2	92.9	0.3	61.9	460	4
Lab #0478	06-04-13	1.7	47.0	13.5	37.8	89.6	0.8	57.7	413	9
Stockpile #2										
Lab #0158	03-13-13	1.6	52.0	13.7	32.7	90.0	1.5	53.9	388	16
Lab #0479	06-04-13	2.8	56.5	8.4	32.3	73.3	3.6	51.5	302	37
Stockpile #3										
Lab #0159	03-13-13	0.2	53.6	13.2	33.0	94.2	0.3	54.3	409	3
HILTY QUARRIES, INC. - URICH, CLINTON, MO										
Stockpile #3										
Lab #0165	03-21-13	4.1	50.5	9.0	36.4	74.4	1.0	54.4	324	11
Lab #0473	06-03-13	6.3	53.2	7.1	33.4	73.3	1.0	51.0	299	10
HOSTETLER QUARRY, LLC, BUFFALO, MO										
Stockpile #1										
Lab #0354	05-08-13	1.9	43.5	9.0	45.6	84.9	10.3	61.9	420	127
HORN QUARRY, LLC, BRECKENRIDGE, MO										
Stockpile #1										
Lab #0205	03-27-13	2.5	53.2	10.3	34.0	83.1	0.7	53.5	356	7
Lab #0412	05-24-13	2.4	53.2	9.3	35.1	85.1	1.1	54.0	367	12
HUNT-MARTIN MATERIALS, PARKVILLE, MO										
HUNT-MARTIN MATERIALS - STAMPER, KANSAS CITY, MO										
Stockpile #2										
Lab #0078	02-11-13	0.1	41.0	13.4	45.5	91.9	0.6	63.8	469	8
Lab #0151	03-13-13	0.1	41.9	12.9	45.1	91.6	0.6	63.3	464	8
Lab #0258	04-15-13	0.0	31.2	15.5	53.3	91.7	0.6	70.4	516	8
Lab #0420	05-31-13	0.0	27.5	15.0	57.5	91.0	0.6	73.4	534	9

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		+8	-8+40	-40+60	-60				ENM	EMg
HUNTER STONE CO, ELLSINORE, MO										
Stockpile #1										
Lab #0334	05-09-13	0.1	48.6	12.6	38.7	97.4	11.2	58.4	455	131
HUTCHENS CONSTRUCTION-PURDY, CASSVILLE, MO										
HUTCHENS CONSTRUCTION-EAGLE ROCK, CASSVILLE, MO										
Stockpile #2										
Lab #0028	01-30-13	4.4	46.6	7.8	41.2	90.3	10.8	57.5	416	124
Lab #0284	04-26-13	4.9	50.1	8.8	36.2	91.4	10.7	54.0	395	116
HUTCHENS CONSTRUCTION CO-SHELL KNOB, CASSVILLE, MO										
Stockpile #1										
Lab #0029	01-30-13	3.3	46.2	8.2	42.3	86.5	10.4	58.8	407	122
Lab #0249	04-11-13	1.3	48.3	9.6	40.8	91.7	11.1	58.6	430	130
HUTCHENS CONSTRUCTION-WASHBURN, CASSVILLE, MO										
IDEKER INC, ST JOSEPH, MO										
JASPER STONE LLC, JASPER, MO										
Stockpile #1										
Lab #0119	02-25-13	3.7	39.8	16.7	39.8	96.9	0.1	59.8	463	1
Lab #0430	05-29-13	7.0	45.6	11.9	35.5	97.4	0.2	54.0	421	2
JENKINS QUARRY, CASSVILLE, MO										
JIMMY SANDERS, INC, LEACHVILLE, AR										
JOPLIN STONE CO Q DUENWEG, JOPLIN, MO										
Stockpile #2										
Lab #0030	01-31-13	1.0	40.9	14.2	43.9	77.3	0.1	62.6	387	1
Lab #0247	04-10-13	0.8	38.7	14.9	45.6	78.9	0.1	64.2	405	1
Lab #0489	06-05-13	1.9	41.4	15.7	41.0	96.9	0.2	60.8	471	2
LEO JOURNAGAN CONSTRUCTION CO, INC, SPRINGFIELD, MO										
Stockpile #1										
Lab #0088	02-11-13	4.3	53.5	12.0	30.2	96.4	0.2	50.8	392	2
Lab #0200	03-28-13	4.8	51.0	11.5	32.7	95.1	0.1	52.4	398	1
Lab #0385	05-20-13	0.6	43.4	14.9	41.1	96.3	0.6	60.9	469	7
Stockpile #2										
Lab #0199	03-28-13	0.1	45.2	15.9	38.8	96.1	0.1	59.6	459	1
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Stockpile #2										
Lab #0018	01-29-13	0.2	5.9	6.2	87.7	88.7	2.5	92.9	659	46
Lab #0182	03-21-13	0.1	4.9	5.7	89.3	88.5	2.4	93.9	665	45
Lab #0335	05-07-13	0.2	5.0	4.3	90.5	85.2	1.8	94.3	643	34
Stockpile #3										
Lab #0020	01-29-13	0.9	26.0	10.3	62.8	89.9	1.8	75.5	543	27
Lab #0183	03-21-13	1.3	27.8	10.1	60.8	89.2	1.9	73.8	527	28
Lab #0341	05-07-13	2.1	26.8	8.7	62.4	89.8	2.1	74.3	534	31
Stockpile #4										
Lab #0019	01-29-13	0.1	25.6	10.5	63.8	89.8	1.6	76.5	550	24
KELLEY QUARRY, CROCKER, MO										
KEMP STONE, INC, PRYOR, OK										
KERFORD LIMESTONE CO, WEEPING WATER, NE										
Stockpile #1										
Lab #0034	02-01-13	0.0	0.0	0.0	100.0	93.4	0.3	100.0	747	6
Lab #0419	05-29-13	0.0	0.3	0.1	99.6	97.2	0.3	99.7	776	6
KING QUARRY, THAYER, MO										
KNOX COUNTY STONE CO, EDINA, MO										
Stockpile #2										
Lab #0017	01-28-13	1.0	40.3	13.3	45.4	90.4	2.7	63.5	459	34
Lab #0181	03-21-13	1.3	46.4	10.8	41.5	90.4	2.5	59.6	431	30
Lab #0339	05-07-13	1.7	41.6	12.2	44.5	92.9	1.6	62.2	462	20
L & W QUARRIES, INC - CLARKDALE #8, CENTERVILLE, IA										
L & W QUARRIES, INC - WALNUT CITY, CENTERVILLE, IA										
Stockpile #2										
Lab #0409	05-23-13	1.8	53.0	12.2	33.0	87.8	0.3	53.6	376	3
Lab #0468	06-10-13	4.0	54.5	10.1	31.4	88.1	0.2	51.1	360	2
L & W QUARRIES INC., CENTERVILLE, IA										
Stockpile #2										
Lab #0209	04-02-13	8.8	44.8	9.2	37.2	90.0	0.1	53.9	388	1
LAFARGE WEST INC.-PERRYVILLE, PERRYVILLE, MO										
LILE QUARRY INC., STRAFFORD, MO										
Stockpile #2										
Lab #0310	05-01-13	1.7	54.9	8.2	35.2	85.8	10.3	53.8	370	111
ARRON LUCE FARM CO, OREGON, MO										
Stockpile #1										
Lab #0154	03-15-13	0.0	0.6	0.3	99.1	89.3	1.4	99.4	710	28

TABLE 1

AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JANUARY 1 THROUGH JUNE 30, 2013

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
ARRON LUCE FARM CO, OREGON, MO (continued)										
Stockpile #1										
Lab #0357	05-16-13	0.0	0.4	0.3	99.3	90.2	1.5	99.6	719	30
MAGRUDER LIMESTONE CO-ASHLEY, BOWLING GREEN, MO										
Stockpile #1										
Lab #0178	03-19-13	0.3	44.5	12.0	43.2	94.9	0.9	61.5	467	11
Stockpile #2										
Lab #0254	04-18-13	0.4	60.9	6.4	32.3	75.5	1.3	51.4	310	13
MAGRUDER LIMESTONE CO, INC.-BOWLING, BOWLING GREEN, MO										
MAGRUDER LIMESTONE CO-FRANKFORD, BOWLING GREEN, MO										
Stockpile #1										
Lab #0324	05-02-13	1.2	44.0	11.7	43.1	95.2	1.6	61.1	465	20
MAGRUDER LIMESTONE CO. - SHELBYNA, TROY, MO										
Stockpile #1										
Lab #0180	03-21-13	2.4	48.8	14.7	34.1	79.9	0.2	55.1	352	2
Lab #0336	05-07-13	2.2	48.7	13.8	35.3	88.6	0.2	55.8	395	2
MAGRUDER LIMESTONE - SILEX QUARRY, TROY, MO										
Stockpile #2										
Lab #0095	02-13-13	1.1	48.0	9.9	41.0	90.8	2.9	58.9	428	34
Lab #0130	03-14-13	2.5	51.3	7.9	38.3	92.1	3.1	55.9	412	35
Lab #0323	05-01-13	1.3	46.7	8.6	43.4	90.8	3.1	60.2	438	37
MAGRUDER LIMESTONE CO Q TROY, TROY, MO										
Stockpile #1										
Lab #0322	05-01-13	4.6	54.3	8.1	33.0	82.1	2.9	51.4	338	30
MANSFIELD LIME & STONE, MANSFIELD, MO										
Stockpile #2										
Lab #0372	05-15-13	0.1	42.9	10.0	47.0	83.6	9.7	63.7	426	124
HUNT MARTIN MATERIAL, RANDOLPH, MO										
Stockpile #1										
Lab #0066	02-11-13	4.3	44.4	11.6	39.7	88.2	0.2	57.8	408	2
Lab #0272	04-22-13	3.9	46.0	11.6	38.5	88.3	0.1	57.0	402	1
Lab #0393	05-22-13	5.2	52.7	10.1	32.0	90.2	0.4	51.2	370	4
Stockpile #2										
Lab #0067	02-11-13	3.7	58.2	9.1	29.0	92.2	0.5	49.0	361	5
Lab #0171	03-21-13	4.0	57.3	9.7	29.0	91.2	0.4	49.1	359	4
Lab #0273	04-22-13	3.3	54.4	10.4	31.9	92.0	0.5	51.7	381	5
Lab #0394	05-22-13	6.8	60.8	8.3	24.1	92.1	0.4	44.3	326	4
MERTENS CONST CO-AUXVASSE, KINGDOM CITY, MO										
Stockpile #3										
Lab #0220	04-05-13	1.8	50.7	11.9	35.6	97.3	4.4	55.4	431	49
Lab #0297	04-22-13	2.5	50.8	11.5	35.2	94.6	4.4	54.8	415	48
Stockpile #4										
Lab #0012	01-17-13	9.4	52.7	8.1	29.8	94.1	1.2	47.8	360	11
Lab #0219	04-05-13	9.5	51.9	8.4	30.2	94.6	1.1	48.2	365	11
Lab #0299	04-22-13	10.2*	51.2	8.1	30.5	94.7	1.2	48.2	0	0
Stockpile #6										
Lab #0003	01-08-13	5.9	48.3	9.5	36.3	92.1	2.3	54.1	398	25
Lab #0218	04-05-13	7.0	56.2	8.4	28.4	94.6	1.6	47.5	359	15
Lab #0298	04-22-13	2.4	46.6	12.5	38.5	86.7	3.1	57.7	400	36
MERTENS CONST CO-Q-REFORM, KINGDOM CITY, MO										
Stockpile #1										
Lab #0188	03-26-13	6.5	56.4	10.0	27.1	90.0	1.4	47.2	340	13
Stockpile #2										
Lab #0189	03-26-13	3.8	46.1	11.3	38.8	85.6	4.0	57.1	391	46
MFA INC, COLUMBIA, MO										
MID-COUNTY MATERIALS, WAYNESVILLE, MO										
Stockpile #1										
Lab #0292	04-25-13	1.8	10.6	3.6	84.0	74.6	8.8	88.8	530	156
MID-MISSOURI LIMESTONE, INC-BIG SPR, KINGDOM CITY, MO										
Stockpile #1										
Lab #0056	02-07-13	6.5	42.7	9.4	41.4	84.1	9.7	57.7	388	112
Lab #0190	03-27-13	6.9	59.0	7.8	26.3	93.0	0.2	45.7	340	2
Lab #0462	06-05-13	5.5	56.8	9.2	28.5	92.8	0.2	48.2	358	2
MID-MISSOURI LIMESTONE INC-MBQ, KINGDOM CITY, MO										
Stockpile #1										
Lab #0057	02-11-13	4.5	48.8	11.7	35.0	95.6	2.0	54.2	415	22
Lab #0305	04-29-13	2.8	51.3	12.2	33.7	95.3	0.9	53.8	411	10
MID-MISSOURI LIMESTONE, INC.-HOUSTO, KINGDOM CITY, MO										

TABLE 1

AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JANUARY 1 THROUGH JUNE 30, 2013

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
MID-MISSOURI LIMESTONE-RIGGS, KINGDOM CITY, MO										
Stockpile #2										
Lab #0216	04-05-13	2.3	54.8	10.4	32.5	86.5	6.0	52.4	363	63
Lab #0381	05-22-13	2.9	49.8	9.2	38.1	88.6	4.0	56.1	397	45
MIDWEST MINERALS, INC - FORT SCOTT, PITTSBURG, KS										
MIDWEST MINERALS INC - JASPER, PITTSBURG, KS										
Stockpile #1										
Lab #0118	02-25-13	0.9	43.7	13.1	42.3	95.9	0.1	61.1	469	1
Lab #0280	04-24-13	0.9	40.0	15.0	44.1	97.0	0.1	63.1	490	1
Lab #0428	05-29-13	0.8	43.1	13.1	43.0	96.6	0.1	61.6	476	1
MINERALS PROCESSING, MAUMEE, OH										
MISSISSIPPI LIME COMPANY, STE. GENEVIEVE,, MO										
Stockpile #1										
Lab #0111	02-28-13	0.0	0.0	0.5	99.5	98.5	0.2	99.8	786	4
Lab #0365	05-14-13	0.0	0.2	0.5	99.3	98.2	0.2	99.7	783	4
Lab #0454	06-03-13	0.0	0.3	0.8	98.9	98.5	0.2	99.5	784	4
Stockpile #3										
Lab #0112	02-28-13	0.0	46.7	27.5	25.8	98.5	0.3	54.0	425	3
Lab #0366	05-14-13	0.1	42.6	30.8	26.5	98.5	0.3	55.6	438	3
Lab #0455	06-03-13	0.0	44.6	29.0	26.4	98.9	0.3	55.0	435	3
MK MINERALS INC., WATHENA, KS										
Stockpile #1										
Lab #0033	01-29-13	0.1	0.6	2.7	96.6	89.6	0.6	98.4	705	12
Lab #0108	02-25-13	0.0	0.5	2.5	97.0	90.3	0.6	98.6	712	12
Lab #0202	03-27-13	0.0	0.7	2.8	96.5	86.2	0.5	98.4	678	10
Lab #0355	05-06-13	0.0	0.4	2.0	97.6	88.2	0.6	98.9	698	12
Lab #0447	06-04-13	0.1	0.6	2.1	97.2	88.3	0.6	98.6	697	12
MO VALLEY GRAIN & PELLETIZING, MISSOURI VALLEY, IA										
MORRIS ROCK, DEERFIELD, MO										
MOUNTAIN GROVE QUARRY, MOUNTAIN GROVE, MO										
NELSON BROS. QUARRIES, JASPER, MO										
Stockpile #1										
Lab #0281	04-24-13	0.0	46.0	15.8	38.2	97.3	0.1	59.2	461	1
Lab #0282	04-24-13	5.7	44.0	15.1	35.2	98.2	0.1	55.3	434	1
Lab #0429	05-29-13	0.0	50.5	14.6	34.9	96.6	0.1	56.3	435	1
NEMO SAND & GRAVEL, QUARRY, PITTSBURG, MO										
Stockpile #1										
Lab #0065	02-06-13	1.3	41.1	8.1	49.5	80.4	9.5	64.6	416	123
Lab #0162	03-20-13	1.9	40.2	8.3	49.6	81.6	9.6	64.6	422	124
Lab #0352	05-06-13	2.8	44.3	6.9	46.0	83.8	10.0	61.2	410	122
NORRIS QUARRIES, LLC-AMAZONIA, AMAZONIA, MO										
NORRIS QUARRIES, LLC-BARNARD, BARNARD, MO										
NORRIS QUARRIES, LLC-BETHANY, BETHANY, MO										
Stockpile #1										
Lab #0043	02-04-13	1.1	46.6	10.3	42.0	71.9	1.7	59.8	344	20
Lab #0093	02-19-13	1.5	45.7	10.0	42.8	72.3	1.7	60.2	348	20
Lab #0264	04-17-13	1.4	43.0	9.1	46.5	71.9	1.7	62.7	361	21
Lab #0362	05-15-13	6.8	48.7	9.2	35.3	77.9	1.6	53.0	330	17
NORRIS QUARRIES, LLC - BREIT, SAVANNAH, MO										
Stockpile #1										
Lab #0081	02-14-13	6.1	50.3	8.9	34.7	84.3	1.3	52.6	355	14
Lab #0152	03-13-13	5.4	51.6	9.0	34.0	80.5	1.4	52.3	337	15
Lab #0309	04-29-13	3.8	50.7	9.4	36.1	83.5	1.4	54.4	363	15
Lab #0446	06-04-13	2.5	48.7	9.9	38.9	79.1	1.8	57.0	361	21
NORRIS QUARRIES, LLC-BLUE MOUND, DAWN, MO										
NORRIS QUARRIES, LLC-GALLATIN, GALLATIN, MO										
Stockpile #1										
Lab #0077	02-14-13	7.3	48.8	8.1	35.8	78.7	1.2	52.9	333	13
Lab #0406	05-20-13	5.9	49.2	8.7	36.2	78.5	1.2	53.7	337	13
NORRIS QUARRIES, LLC- GOODEN, RAVENWOOD, MO										
Stockpile #5										
Lab #0097	02-18-13	5.7	43.2	9.7	41.4	80.0	1.5	58.0	371	17
NORRIS QUARRIES, LLC - EAST, HUNTSVILLE, MO										
Stockpile #2										
Lab #0237	04-07-13	4.1	50.8	12.7	32.4	93.1	0.2	52.7	393	2
Lab #0311	04-29-13	5.2	51.0	12.3	31.5	92.5	0.2	51.6	382	2
NORRIS QUARRIES, LLC-JEFFRIES, CAMERON, MO										
NORRIS QUARRIES, LLC-MAITLAND, MAITLAND, MO										
Stockpile #3										
Lab #0184	03-20-13	5.0	49.5	10.2	35.3	88.8	0.9	53.8	382	10

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AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JANUARY 1 THROUGH JUNE 30, 2013

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
NORRIS QUARRIES, LLC-MAITLAND, MAITLAND, MO (continued)										
Stockpile #3										
Lab #0201	03-26-13	3.6	47.4	12.0	37.0	86.7	1.0	56.1	389	11
Lab #0204	03-29-13	4.0	47.0	10.9	38.1	88.1	0.9	56.4	397	10
Lab #0260	04-16-13	5.0	49.9	10.5	34.6	90.4	0.8	53.4	386	9
Lab #0261	04-19-13	6.0	48.2	9.7	36.1	89.5	0.9	54.0	386	10
Lab #0358	05-16-13	7.1	47.3	8.8	36.8	85.2	1.3	53.9	367	14
NORRIS QUARRIES, LLC-PRINCETON, PRINCETON, MO										
Stockpile #1										
Lab #0235	04-04-13	2.9	40.2	10.5	46.4	77.1	1.4	62.8	387	18
Lab #0236	04-05-13	7.7	41.7	8.4	42.2	78.7	1.5	57.7	363	17
Lab #0233	04-08-13	2.7	40.2	10.1	47.0	76.9	1.4	63.1	388	18
Lab #0342	05-09-13	3.3	34.5	8.2	54.0	67.2	1.8	67.5	363	24
Stockpile #3										
Lab #0037	01-28-13	6.4	42.3	7.8	43.5	78.4	1.3	58.8	369	15
Lab #0143	03-15-13	13.0*	43.0	7.7	36.3	77.1	1.6	51.7	0	0
Lab #0466	06-07-13	6.4	43.9	8.6	41.1	77.4	1.1	57.2	354	13
NORRIS QUARRIES, LLC- TRENTON, TRENTON, MO										
Stockpile #2										
Lab #0265	03-17-13	0.1	52.1	10.8	37.0	89.8	1.2	56.5	406	14
Lab #0266	04-18-13	0.1	53.1	9.8	37.0	85.8	1.1	56.2	385	12
Lab #0268	04-19-13	0.7	49.4	11.8	38.1	91.0	1.2	57.5	419	14
Lab #0343	05-09-13	0.7	48.8	12.4	38.1	90.6	0.9	57.7	418	10
Lab #0469	06-11-13	3.4	53.3	10.4	32.9	91.6	1.1	52.5	384	12
OAKLEY FERTILIZER, INC, NORTH LITTLE ROCK, AR										
OSAGE QUARRIES, INC, KINGDOM CITY, MO										
PELLETIZING COMPANY INC, GORDONSVILLE, TN										
PHENIX ROCK, ASH GROVE, MO										
PRAIRIE CREEK TERMINAL SERVICES INC, ELWOOD, IL										
RAY COUNTY STONE, RAYVILLE, MO										
Stockpile #1										
Lab #0253	04-15-13	4.2	52.5	9.3	34.0	80.4	1.3	52.7	339	14
Lab #0330	05-07-13	2.0	43.9	11.5	42.6	77.1	1.4	60.5	373	17
Lab #0444	06-04-13	3.4	46.8	11.0	38.8	77.8	1.5	57.1	355	17
S & A CONSTRUCTION LTD, ALLENDALE, MO										
SHILDBERG CONST. CO.-DECATUR QUARRY, GREENFIELD, IA										
Stockpile #1										
Lab #0058	02-04-13	2.5	44.0	9.8	43.7	71.3	1.4	60.6	346	17
Lab #0124	03-06-13	2.2	41.6	10.2	46.0	73.1	1.2	62.5	366	15
Lab #0244	04-09-13	1.2	41.5	10.6	46.7	74.5	1.3	63.4	378	16
Lab #0396	05-17-13	6.8	45.6	8.8	38.8	73.6	1.0	55.5	327	11
SCHILDBERG CONST. CO.-GRAHAM MO Q, GREENFIELD, IA										
Stockpile #3										
Lab #0098	02-20-13	0.4	48.8	12.4	38.4	86.4	0.6	58.0	401	7
Lab #0149	03-12-13	0.7	44.9	13.4	41.0	87.4	0.6	60.3	421	7
SCHILDBERG CONST. CO.-SHAMBAUGH Q, GREENFIELD, IA										
Stockpile #2										
Lab #0203	03-29-13	0.3	46.4	11.6	41.7	88.1	1.6	60.3	425	19
Lab #0243	04-09-13	0.2	46.1	11.9	41.8	88.7	1.3	60.5	429	16
Lab #0259	04-16-13	5.2	49.5	10.2	35.1	88.6	1.2	53.6	380	13
Lab #0262	04-19-13	5.1	50.3	9.8	34.8	88.4	1.3	53.3	377	14
Lab #0356	05-07-13	6.3	46.8	10.3	36.6	86.7	1.4	54.5	378	15
Lab #0448	06-05-13	0.6	49.1	12.0	38.3	88.4	1.3	57.8	409	15
SCHILDBERG CONST. CO.-WATTERSON, GREENFIELD, IA										
SHAWNEE STONE - CYPRESS PLANT, CYPRESS, IL										
SHAWNEE STONE - JONESBORO PLANT, ANNA, IL										
Stockpile #2										
Lab #0096	02-20-13	0.6	35.1	14.4	49.9	97.4	0.7	67.3	525	9
Lab #0185	03-25-13	0.1	34.7	16.2	49.0	97.2	0.6	67.4	524	8
SIEGEL GRAVEL & EXCAVATING, VERSAILLES, MO										
Stockpile #1										
Lab #0032	02-04-13	7.6	40.9	9.3	42.2	86.6	10.4	58.0	402	121
Lab #0319	05-06-13	7.9	44.6	8.6	38.9	89.3	10.9	55.2	394	120
Stockpile #2										
Lab #0320	05-06-13	24.2*	34.9	5.5	35.4	88.5	10.9	47.4	0	0
SCAGGS ROCK-N-LIME, INC., PATTERSON, MO										
Stockpile #3										
Lab #0146	03-15-13	5.9	17.7	31.0	45.4	100.4	12.4	68.4	550	170
Lab #0315	05-02-13	2.9	11.4	26.2	59.5	98.8	12.0	78.1	617	187

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JANUARY 1 THROUGH JUNE 30, 2013

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
SKYLINE MATERIALS - NEWARK, DECORAH, IA										
Stockpile #1										
Lab #0210	04-03-13	11.0*	45.5	8.3	35.2	90.7	1.5	51.6	0	0
Lab #0340	05-07-13	10.1*	40.3	7.5	42.1	93.3	0.5	56.7	0	0
SKYLINE MATERIALS-GLASGOW, GLASGOW, MO										
SOUTH CENTRAL COOP, CAINSVILLE, MO										
Stockpile #1										
Lab #0122	02-25-13	0.0	0.5	1.3	98.2	94.1	0.1	99.1	746	2
Lab #0279	04-25-13	0.1	0.8	1.3	97.8	92.4	0.1	98.8	730	2
Stockpile #3										
Lab #0035	01-28-13	0.0	0.6	1.6	97.8	91.3	0.2	98.9	722	4
Lab #0465	06-07-13	0.1	0.6	0.6	98.7	92.8	0.1	99.2	737	2
SMASAL AGGREGATE, LINCOLN, MO										
Stockpile #1										
Lab #0106	02-18-13	1.5	40.7	12.2	45.6	84.2	0.4	63.1	425	5
Lab #0230	04-02-13	1.3	44.7	12.9	41.1	91.1	0.5	60.0	437	6
Lab #0477	06-04-13	1.1	45.6	14.1	39.2	89.6	0.6	59.1	423	7
SPRINGFIELD AGGREGATE SUPPLY, REPUBLIC, MO										
Stockpile #1										
Lab #0269	04-19-13	0.1	1.2	1.5	97.2	95.2	0.6	98.4	749	12
Lab #0491	06-07-13	0.2	1.8	1.9	96.1	94.5	0.5	97.7	739	10
SPRINGFIELD UNDERGROUND, INC., SPRINGFIELD, MO										
Stockpile #2										
Lab #0053	02-07-13	1.1	19.7	11.6	67.6	96.7	0.2	79.5	615	3
Lab #0198	03-26-13	2.0	23.0	14.1	60.9	98.3	0.1	75.1	591	2
Lab #0433	05-30-13	0.2	5.6	9.0	85.2	98.2	0.2	92.0	723	4
S-S-S INC, LOUISIANA, MO										
Stockpile #1										
Lab #0082	02-08-13	3.1	45.7	11.7	39.5	91.0	0.2	57.9	422	2
Lab #0179	03-20-13	1.4	43.7	12.0	42.9	94.5	0.1	61.0	461	1
Lab #0325	05-02-13	3.9	50.5	11.0	34.6	96.9	0.2	53.8	417	2
STOCKMAN QUARRY, LLC, JEFFERSON CITY, MO										
Stockpile #1										
Lab #0383	05-20-13	0.1	40.4	10.3	49.2	90.1	11.0	65.5	472	144
Lab #0437	05-28-13	0.0	39.6	10.4	50.0	90.0	10.8	66.1	476	143
Lab #0435	05-30-13	0.0	36.8	10.5	52.7	89.5	10.7	68.2	488	146
STRACK STONE, CAPE GIRARDEAU, MO										
STRACK STONE CO. - LODI, LLC, CAPE GIRARDEAU, MO										
T&M STONE QUARRY, LLC, WHITEWATER, MO										
TABLE ROCK ASPHALT CONST CO INC, BRANSON, MO										
Stockpile #2										
Lab #0390	05-22-13	0.1	0.3	0.9	98.7	84.3	1.9	99.3	670	38
Stockpile #3										
Lab #0391	05-22-13	11.4*	25.2	3.4	60.0	81.5	6.2	68.3	0	0
TAYLOR QUARRIES, LOCKWOOD, MO										
TOWER ROCK STONE CO, SCOTT CITY, MO										
TOWER ROCK STONE CO, STE GENEVIEVE, MO										
Stockpile #1										
Lab #0115	02-28-13	0.2	32.6	14.8	52.4	90.8	4.1	69.4	504	57
Lab #0367	05-14-13	0.5	41.6	14.8	43.1	94.9	2.8	62.4	474	35
Lab #0451	06-03-13	0.1	42.2	14.9	42.8	92.4	3.5	62.3	460	44
Stockpile #2										
Lab #0114	02-28-13	0.6	38.2	12.2	49.0	91.2	6.3	65.9	481	83
Stockpile #3										
Lab #0117	02-28-13	0.5	40.7	17.6	41.2	97.1	0.5	61.9	481	6
Lab #0368	05-14-13	1.5	47.2	15.1	36.2	97.7	0.3	57.1	446	3
Lab #0452	06-03-13	0.5	38.7	17.3	43.5	98.2	0.2	63.6	499	3
Stockpile #5										
Lab #0116	02-28-13	8.1	51.4	9.9	30.6	91.2	0.4	49.4	360	4
Lab #0369	05-14-13	14.7*	46.9	9.1	29.3	91.7	0.8	46.5	0	0
Lab #0453	06-03-13	12.2*	49.6	11.5	26.7	91.6	0.4	46.0	0	0
TRAGER LIMESTONE-NETTLETON, CHILLICOTHE, MO										
Stockpile #1										
Lab #0046	02-05-13	0.2	49.5	9.4	40.9	75.9	1.2	58.9	358	14
Lab #0141	03-14-13	0.2	48.6	11.3	39.9	82.5	0.9	58.8	388	11
Lab #0411	05-24-13	0.2	48.3	11.6	39.9	82.4	1.1	58.9	388	13
TRAGER LIMESTONE LLC-GALLATIN, CHILLOTHIE, MO										
Stockpile #1										
Lab #0044	02-05-13	0.1	56.1	9.4	34.4	68.0	1.3	54.1	294	14
Lab #0140	03-13-13	0.6	43.9	9.1	46.4	77.6	0.8	62.8	390	10

TABLE 1

AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JANUARY 1 THROUGH JUNE 30, 2013

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
TRAGER LIMESTONE LLC-GALLATIN, CHILLOTHIE, MO (continued)										
Stockpile #1										
Lab #0314	05-02-13	0.1	55.4	9.9	34.6	71.4	1.5	54.4	311	16
Lab #0421	05-29-13	0.1	50.8	9.7	39.4	73.2	1.2	57.9	339	14
UEHLIN QUARRY, AMAZONIA, MO										
UNITED SUPPLIERS, ELDORA, IA										
WADE AG PRODUCTS-MAIN OFC, LACYGNE, KS										
Stockpile #2										
Lab #0087	02-14-13	6.5	51.4	8.8	33.3	91.8	0.8	51.4	378	8
Lab #0228	04-01-13	3.6	49.1	9.4	37.9	86.5	0.9	55.8	386	10
Lab #0402	05-20-13	5.8	51.4	9.2	33.6	89.6	1.0	52.0	373	10
WADE AG PRODUCTS Q DREXEL, LACYGNE, KS										
WASHINGTON COUNTY AGGREGATES, INC., POTOSI, MO										
Stockpile #1										
Lab #0191	03-28-13	0.9	32.5	15.3	51.3	99.3	11.6	68.6	545	159
Lab #0486	06-10-13	1.7	25.4	9.5	63.4	91.0	9.5	75.5	549	143
FRED WEBER INC.-AUBURN QUARRY, MARYLAND HEIGHTS, MO										
FRED WEBER INC.-BLUFF CITY MINERALS, ALTON, IL										
Stockpile #1										
Lab #0121	02-20-13	2.4	6.1	5.0	86.5	87.2	2.6	91.0	635	47
Lab #0327	05-06-13	0.0	2.5	3.9	93.6	85.3	1.2	96.6	659	23
Lab #0400	05-24-13	0.0	3.0	5.1	91.9	84.4	1.1	95.7	646	21
FRED WEBER, INC - FESTUS STONE, FESTUS, MO										
FRED WEBER, INC - FOLEY QUARRY, MARYLAND HEIGHTS, MO										
FRED WEBER, INC.-NEW MELLE STONE, NEW MELLE, MO										
FRED WEBER INC-NORTH QUARRY, MARYLAND HEIGHTS, MO										
Stockpile #1										
Lab #0103	02-19-13	3.3	16.5	13.8	66.4	93.8	2.2	78.8	591	35
Lab #0291	04-24-13	4.8	15.2	14.6	65.4	93.7	2.5	78.0	584	39
FRED WEBER, INC. - SOUTH STONE, ST. LOUIS, MO										
Stockpile #1										
Lab #0102	02-19-13	0.8	6.4	6.5	86.3	92.5	3.2	91.8	679	59
Lab #0290	04-24-13	2.7	20.7	13.9	62.7	95.2	5.4	76.2	580	82
WHITE ROCK QUARRIES OF LINCOLN CO, ELSBERRY, MO										
Stockpile #1										
Lab #0129	03-14-13	5.4	48.7	10.5	35.4	95.3	0.1	53.9	411	1
Lab #0326	05-20-13	3.0	47.3	11.5	38.2	96.3	0.1	56.9	439	1
WILKERSON BROS QUARRY, PARIS, MO										
Stockpile #3										
Lab #0092	02-05-13	3.0	49.4	12.8	34.8	91.6	1.1	54.8	402	12
Lab #0303	04-26-13	5.6	49.5	10.9	34.0	92.4	1.4	52.9	391	15
Lab #0380	05-21-13	6.2	47.6	11.8	34.4	88.3	0.7	53.4	377	7
WILLARD ASPHALT - #18 SLEEPER, LEBANON, MO										
Stockpile #1										
Lab #0481	06-06-13	0.1	0.5	1.5	97.9	86.5	10.3	98.9	685	204
Stockpile #3										
Lab #0482	06-06-13	0.7	41.6	12.5	45.2	83.1	10.2	63.1	419	129
WILLARD ASPHALT PAVING,- #19, LEBANON, MO										
Stockpile #1										
Lab #0025	01-31-13	0.0	0.1	1.2	98.7	87.9	10.6	99.4	699	211
Lab #0293	04-25-13	0.0	0.6	1.1	98.3	87.9	10.9	99.1	697	216
WILLARD QUARRY-SLEEPER, LEBANON, MO										
WILLARD QUARRIES- ST ROBERT, LEBANON, MO										
Stockpile #1										
Lab #0026	01-31-13	2.8	43.6	14.3	39.3	89.0	10.7	58.8	419	126
Lab #0294	04-25-13	0.8	42.2	15.4	41.6	80.8	9.8	61.4	397	120
WILLIAMSVILLE STONE CO, POPLAR BLUFF, MO										

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TABLE 2

AGRICULTURAL LIMING MATERIALS SAMPLED FROM
JANUARY 1 THROUGH JUNE 30, 2013

Dealer and Producer	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
AGRISERVICE OF BRUNSWICK, L.L.C., BRUNSWICK, MO										
FRED WEBER INC.-BLUFF CITY MINERALS, ALTON, IL										
Lab #0445	06-05-13	0.3	3.4	4.8	91.5	84.6	1.9	95.2	645	36
CTL FARM SERVICE INC., BETHANY, MO										
MK MINERALS INC., WATHENA, KS										
Lab #0042	02-04-13	0.0	0.5	1.6	97.9	89.3	0.5	99.0	707	10
Lab #0360	05-15-13	0.1	1.1	2.9	95.9	88.8	0.6	97.9	696	12
DICKERSON FEED & GRAIN, LUCERNE, MO										
CALCIUM PRODUCTS, INC., GILMORE CITY, IA										
Lab #0425	05-30-13	0.0	0.7	1.6	97.7	93.7	0.1	98.8	741	2
DICKEY FARM SUPPLY, CALEDONIA, MO										
LANGE STEGMANN FERTILIZER, ST LOUIS, MO										
Lab #0193	03-28-13	0.0	1.8	2.7	95.5	84.9	2.5	97.6	663	49
J. ECKSTEIN ENTERPRISES, BEAUFORT, MO										
LANGE STEGMANN FERTILIZER, ST LOUIS, MO										
Lab #0307	05-01-13	0.1	3.6	4.5	91.8	87.3	2.1	95.4	666	40
GAGE'S FERTILIZER & GRAIN INC, BETHANY, MO										
MK MINERALS INC., WATHENA, KS										
Lab #0363	05-15-13	0.1	1.0	3.2	95.7	88.3	0.6	97.9	691	12
GIBSON LIME CO-DEXTER, DEXTER, MO										
SCAGGS ROCK-N-LIME, INC., PATTERSON, MO										
Lab #0186	03-27-13	6.6	20.6	27.8	45.0	98.8	11.6	66.8	528	155
HEARTLAND MATERIALS LLC, JACKSON, MO										
Lab #0187	03-27-13	0.1	34.4	16.6	48.9	98.7	1.7	67.5	533	23
HELENA CHEMICAL COMPANY-HARRIS, NEWTOWN, MO										
MK MINERALS INC., WATHENA, KS										
Lab #0176	03-21-13	0.0	0.7	3.0	96.3	89.0	0.5	98.3	700	10
HELENA CHEMICAL COMPANY-EAST, UNIONVILLE, MO										
MK MINERALS INC., WATHENA, KS										
Lab #0123	03-08-13	0.0	0.7	2.9	96.4	89.0	0.5	98.3	700	10
Lab #0177	03-21-13	0.0	0.5	2.6	96.9	89.4	0.5	98.6	705	10
Lab #0263	04-16-13	0.0	0.6	3.0	96.4	90.3	0.5	98.4	710	10
Lab #0410	05-23-13	0.1	0.9	3.4	95.6	88.6	0.6	97.9	694	12
HOFFMAN & REED INC, TRENTON, MO										
MK MINERALS INC., WATHENA, KS										
Lab #0047	02-06-13	0.1	0.6	2.1	97.2	89.3	0.6	98.6	704	12
JEFFCO FERTILIZER, DESOTO, MO										
LANGE STEGMANN FERTILIZER, ST LOUIS, MO										
Lab #0344	05-06-13	0.2	2.1	3.2	94.5	87.3	2.0	96.9	677	39
LOHMAN PRODUCERS EXCHANGE, LOHMAN, MO										
MFA INC, COLUMBIA, MO										
Lab #0021	01-29-13	0.3	6.0	6.5	87.2	86.2	2.4	92.6	639	44
MFA COOP #130, RHINELAND, MO										
FRED WEBER INC.-BLUFF CITY MINERALS, ALTON, IL										
Lab #0054	02-07-13	0.1	6.7	6.7	86.5	89.4	2.5	92.2	659	46
MFA AGRI SERVICE, BETHANY, MO										
MK MINERALS INC., WATHENA, KS										
Lab #0278	04-23-13	0.0	1.2	3.1	95.7	89.2	0.6	97.9	698	12
Lab #0361	05-15-13	0.0	1.0	3.3	95.7	90.7	0.5	97.9	711	10
MFA AGRI SERVICE, BROOKFIELD, MO										
MK MINERALS INC., WATHENA, KS										
Lab #0173	03-19-13	0.0	0.6	2.7	96.7	90.0	0.6	98.5	709	12
MFA AGRI SERVICE, JEFFERSON CITY, MO										
MFA INC, COLUMBIA, MO										
Lab #0027	02-01-13	0.2	5.7	5.8	88.3	89.7	2.5	93.2	669	47
MFA AGRI SERVICE, LANCASTER, MO										
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Lab #0075	02-12-13	0.3	8.0	6.3	85.4	87.9	2.3	91.2	641	42
Lab #0276	04-22-13	0.4	5.0	5.9	88.7	88.1	2.4	93.5	659	45
MFA AGRI SERVICES, LINEVILLE, IA										
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Lab #0036	01-28-13	0.3	6.8	6.2	86.7	86.6	2.0	92.1	638	37
Lab #0234	04-04-13	0.2	7.3	6.6	85.9	88.3	1.8	91.7	648	33
MFA AGRI SERVICE, MACON, MO										
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Lab #0175	03-20-13	0.2	3.1	5.4	91.3	87.9	2.4	95.3	670	46
MFA AGRI SERVICE, MARYVILLE, MO										
MK MINERALS INC., WATHENA, KS										
Lab #0329	05-06-13	0.8	4.5	12.6	82.1	70.1	8.6	90.8	509	156

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TABLE 2

AGRICULTURAL LIMING MATERIALS SAMPLED FROM
JANUARY 1 THROUGH JUNE 30, 2013

Dealer and Producer	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
MFA AGRI SERVICE, MILAN, MO										
		KELLY LIMESTONE LLC, KIRKSVILLE, MO								
Lab #0038	01-30-13	0.4	7.4	9.0	83.2	85.5	1.8	90.5	619	33
Lab #0172	03-19-13	0.2	6.9	10.5	82.4	85.0	1.9	90.4	615	34
MFA AGRI SERVICE, ODESSA, MO										
		FRED WEBER INC.-BLUFF CITY MINERALS, ALTON, IL								
Lab #0099	02-20-13	0.2	3.7	5.5	90.6	84.0	1.4	94.8	637	27
MFA AGRI SERVICES, ROLLA, MO										
		MFA INC, COLUMBIA, MO								
Lab #0024	01-31-13	0.5	6.3	6.0	87.2	87.2	2.3	92.4	644	42
Lab #0487	06-12-13	0.1	3.0	4.6	92.3	85.3	1.5	95.8	654	29
MFA AGRI SERVICE, ST CLAIR, MO										
		BUSSEN QUARRIES, INC.-ANTIRE QUARRY, ST LOUIS, MO								
Lab #0195	03-28-13	0.0	0.4	1.2	98.4	92.8	0.2	99.2	737	4
		ILC RESOURCES, URBANDALE, IA								
Lab #0346	05-06-13	0.0	0.3	1.2	98.5	93.5	0.2	99.3	743	4
MFA AGRI SERVICE INC,-BULK PLANT, SALEM, MO										
		MFA INC, COLUMBIA, MO								
Lab #0414	05-22-13	0.1	4.0	5.6	90.3	84.6	1.0	94.7	641	19
MFA EXCHANGE, SALEM, MO										
		FRED WEBER INC.-BLUFF CITY MINERALS, ALTON, IL								
Lab #0133	03-12-13	0.2	8.6	6.7	84.5	88.4	2.0	90.7	641	36
		WASHINGTON COUNTY AGGREGATES, INC., POTOSI, MO								
Lab #0134	03-12-13	0.5	33.4	15.5	50.6	96.6	11.5	68.3	527	157
Lab #0415	05-22-13	0.8	11.0	10.1	78.1	83.9	10.4	86.9	583	181
MFA AGRI SERVICE, SALISBURY, MO										
		KELLY LIMESTONE LLC, KIRKSVILLE, MO								
Lab #0225	04-01-13	0.1	1.3	2.9	95.7	86.4	1.9	97.8	676	37
MFA AGRI SERVICE, TRENTON, MO										
		MK MINERALS INC., WATHENA, KS								
Lab #0144	03-15-13	0.0	0.4	2.8	96.8	89.3	0.6	98.6	704	12
Lab #0267	04-19-13	0.0	0.7	2.7	96.6	90.1	0.5	98.4	709	10
Lab #0408	05-22-13	0.1	0.5	2.7	96.7	89.6	0.6	98.4	706	12
LEO O'LAUGHLIN, MACON, MO										
		CENTRAL STONE COMPANY - HUNTINGTON, HANNIBAL, MO								
Lab #0040	02-08-13	4.7	44.8	10.8	39.7	89.6	0.3	57.4	411	3
Lab #0139	03-12-13	5.3	47.9	11.2	35.6	90.4	0.3	54.3	393	3
Lab #0232	04-02-13	4.6	48.2	11.1	36.1	89.3	0.3	54.8	392	3
Lab #0312	04-30-13	1.7	35.1	13.6	49.6	87.7	0.3	66.5	467	4
LEO O'LAUGHLIN INC, MARCELINE, MO										
		CENTRAL STONE COMPANY - HUNTINGTON, HANNIBAL, MO								
Lab #0041	02-08-13	5.0	48.0	10.9	36.1	89.9	0.3	54.6	393	3
Lab #0138	03-12-13	2.8	39.4	12.3	45.5	90.8	0.4	62.7	456	5
Lab #0231	04-02-13	4.9	48.0	11.1	36.0	89.9	0.3	54.7	393	3
Lab #0359	05-14-13	0.1	8.1	6.4	85.4	88.6	2.4	91.3	647	44
R & M FEED, POTOSI, MO										
		R & M FEED, POTOSI, MO								
Lab #0192	03-28-13	0.1	2.9	3.9	93.1	86.5	2.3	96.2	665	44
SCHAEPERKOETTER STORE, MT STERLING, MO										
		FRED WEBER INC-NORTH QUARRY, MARYLAND HEIGHTS, MO								
Lab #0148	03-14-13	5.3	10.4	5.9	78.4	93.1	2.4	84.5	630	41
SKYLINE MATERIALS, LA PLATA, MO										
		SKYLINE MATERIALS - NEWARK, DECORAH, IA								
Lab #0076	02-12-13	4.4	38.4	8.4	48.8	90.5	2.0	63.4	459	25
Lab #0174	03-20-13	5.0	39.6	7.9	47.5	90.9	1.9	62.1	452	24
Lab #0277	04-22-13	4.3	39.4	9.7	46.6	91.2	1.8	62.3	454	22
Lab #0407	05-21-13	4.5	38.7	8.5	48.3	90.7	1.9	63.1	458	24
Lab #0464	06-04-13	5.1	38.4	8.3	48.2	90.9	1.4	62.8	457	18
Lab #0471	06-04-13	2.3	35.8	13.8	48.1	83.6	0.2	65.3	437	3
SKYLINE MATERIALS, MARCELINE, MO										
		SKYLINE MATERIALS-GLASGOW, GLASGOW, MO								
Lab #0313	04-30-13	3.9	52.3	8.7	35.1	86.6	5.9	53.4	370	63
STRAATMANN FEED, LABADIE, MO										
		LANGE STEGMANN FERTILIZER, ST LOUIS, MO								
Lab #0286	04-24-13	0.4	2.8	3.3	93.5	85.8	2.4	96.2	660	46
STOVER MILLING, STOVER, MO										
		FRED WEBER INC.-BLUFF CITY MINERALS, ALTON, IL								
Lab #0155	03-12-13	0.1	2.6	3.5	93.8	85.3	2.7	96.6	659	52

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

US Standard Sieve Fractions	Efficiency Index		% Found in sample		Fineness Components
Retained on 8	0	X	4.0	=	0
Pass. 8-Ret. On 40	.25	X	34	=	8.5
Pass. 40-Ret. On 60	.60	X	10	=	6.0
Passing 60	1.00	X	52.0	=	52.0

Sum of fineness components = FINENESS FACTOR = 66.5

EFFECTIVE NEUTRALIZING MATERIALS (ENM) (pounds per ton)

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

DRY AG LIME

FF % CCE	100	90	80	70	60	50	40
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 ag lime

FLUID AG LIME

80	640	576	512
70	560	504	448
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 (EMg) (pounds per ton)

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

FINENESS FACTOR

% Mg	100	90	80	70	60	50	40
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



Agricultural Experiment Station

University of Missouri-Columbia

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Fertilizer Control Services

Columbia, MO 65211

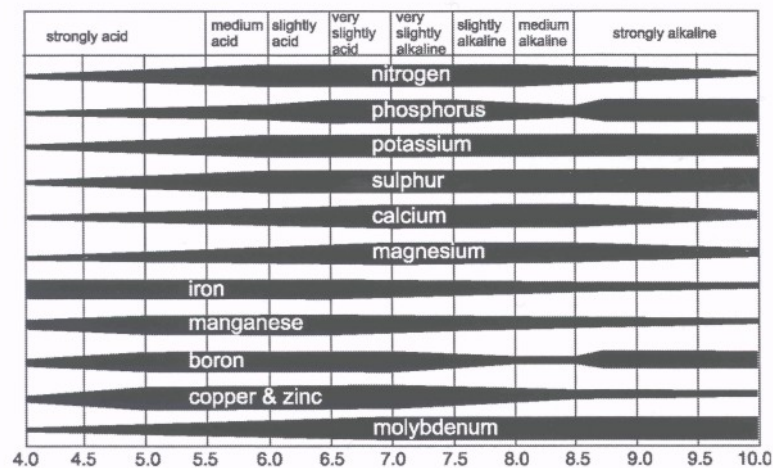
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Recent research is demonstrating the value in the decision for the sieves chosen to qualify material as Agricultural Limestone in Missouri. The current specifications provide predictably for your ag lime buyers on how frequently they need to soil test an reapply to maintain proper soil pH. Currently they should be testing every 3 to 5 years. Please review the chart below on nutrient availability. Missouri ag producers are being asked to reduce or eliminate nutrient runoff from their fields to protect the Gulf of Mexico, proper pH is an important tool in their toolbox to keep the nutrients paid for, on their property.

As we approach the 40th year anniversary of the adoption of the Missouri Agricultural Liming Materials Law and Rules, we need to remember the background work that went into the adoption of all of the provisions contained therein. Dr. Daryl Buchholz and Dr. Jim Brown were the University of Missouri Agronomists who provided guidance through research and a thorough literature review of the scientific research to provide guidance on quality standards too the committee who was drafting the law and rules at the time. The good Doctors were well aware of the guidelines as outlined in the chart below on the affect that soil pH has on nutrient availability. There is an optimum pH range when an agricultural producer is going to realize the maximum economic benefit from the nutrient inputs. Being below the range, lack of soil neutralization through timely application of ag lime; or above the range by too large an application or uncontrollable release of liming materials applied is equally detrimental to the producer on the utilization of the fertilizers applied to produce a crop.



Agricultural Limestone is defined as finely ground or crushed limestone, either calcitic or dolomitic, which shall have a minimum specification of ninety percent (90%) of the materials passing through a United States standard number eight sieve;

The guidelines provided and agreed to by the Missouri Ag Lime Producers on the committee, knowing the capability of their equipment to produce high quality agricultural limestone, are the basis for Missouri's Ag Lime Law. The standards adopted allow soil test labs to make recommendations to agricultural producers based on soil testing to make correct applications of ag lime to apply to move the pH into the optimum zone for nutrient utilization. The standard adopted is intended to provide the potential release curve of the ag liming materials for pH adjustment for a three year period of time.

There is not definition in the Missouri Ag Liming Materials Law and Rules for: Screenings, Dust, Tailings, Chips, Fines, etc.; after all, rocks are rocks. These materials have their uses, and they are non-ag related when one is speaking of soil pH adjustment. Ag related if you are back filling fence posts, bedding waterlines or creating livestock loafing areas.

Agricultural Liming Materials
Control Services
University of Missouri-Columbia
Columbia, MO 65211-8080

Address Service Requested

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This report also available on the web at:

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