

**Missouri
Agricultural Liming
Materials Report**

July 1 to December 31, 2016

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, 2016. There were 887 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. Thirty-two deficient samples are reported, all 32 were for excessive coarseness. There were eight "stop sale" orders issued against producer stockpiles for excessive coarseness. There were no Stop Sale Orders released. There was one deficient sample reported at a distributor retail stockpile location.

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	387,007	919,294	1,306,301
2014	572,329	862,113	1,434,442
2015	588,692	901,514	1,490,206
2016	576,550	900,000*	1,476,550*

* PRELIMINARY ESTIMATE

TABLE 1

AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JULY 1 THROUGH DECEMBER 31, 2016

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										
AA QUARRY, PLEASANT HILL, MO										
Stockpile #2										
Lab #0765	08-05-16	1.9	56.6	9.8	31.7	91.4	0.4	51.7	378	4
Lab #1046	09-19-16	0.2	56.6	10.1	33.1	88.8	0.4	53.3	379	4
Lab #1225	10-21-16	0.3	56.8	9.9	33.0	90.8	0.5	53.1	386	5
Lab #1409	11-18-16	0.7	56.4	9.9	33.0	90.3	0.4	53.0	383	4
ALLEN QUARRIES INC, LOCKWOOD, MO										
Stockpile #1										
Lab #1244	10-20-16	1.1	56.0	12.7	30.2	88.7	0.2	51.8	368	2
Lab #1514	11-29-16	1.6	52.3	12.7	33.4	87.8	0.2	54.1	380	2
ANCHOR STONE, PINEVILLE, MO										
Stockpile #1										
Lab #0869	08-25-16	1.5	39.5	8.4	50.6	90.6	11.2	65.5	475	147
Lab #0871	08-26-16	1.6	38.7	8.7	51.0	91.6	11.3	65.9	483	149
Lab #1245	10-21-16	12.6*	50.7	6.4	30.3	89.8	10.7	46.8	0	0
Lab #1393	11-09-16	1.0	39.0	9.0	51.0	90.0	11.0	67.0	478	142
Lab #1394	11-10-16	1.0	39.0	9.0	51.0	90.0	11.0	66.0	475	142
Lab #1397	11-11-16	1.0	38.0	10.0	52.0	91.0	11.0	67.0	487	142
Lab #1432	11-18-16	0.3	38.7	9.7	51.3	90.1	11.1	66.8	481	148
Stockpile #2										
Lab #1584	12-13-16	0.1	38.2	10.2	51.5	90.0	10.6	67.2	484	142
ANCHOR STONE CO, JOPLIN, MO										
Stockpile #2										
Lab #0776	08-09-16	5.2	43.6	11.5	39.7	81.1	0.1	57.5	373	1
Lab #0863	08-23-16	9.0	46.4	9.8	34.8	80.4	0.2	52.3	336	2
Lab #0868	08-25-16	10.4*	49.0	9.8	30.8	76.8	0.2	48.9	0	0
Lab #1017	09-13-16	12.4*	48.3	9.3	30.0	75.1	0.1	47.7	0	0
APAC-CENTRAL INC.-N.HARRISON QUARRY, FAYETTEVILLE, AR										
Stockpile #1										
Lab #1104	09-28-16	3.6	50.7	13.3	32.4	94.1	0.2	53.1	399	2
Lab #1333	11-03-16	2.5	51.9	12.9	32.7	93.8	0.2	53.4	401	2
Lab #1583	12-12-16	3.2	50.3	13.0	33.5	93.7	0.2	53.9	404	2
APAC-CENTRAL INC. -VALLEY SPRINGS, FAYETEVILLE, AR										
Stockpile #1										
Lab #1103	09-28-16	2.6	45.3	12.6	39.5	95.2	0.2	58.4	445	2
Lab #1332	11-03-16	1.9	45.3	13.1	39.7	96.3	0.2	58.9	454	2
Lab #1582	12-12-16	1.7	50.1	13.0	35.2	95.4	0.2	55.5	424	2
APAC - BRICKEY'S STONE, BLOOMSDALE, MO										
Stockpile #1										
Lab #0912	08-31-16	5.5	43.0	12.4	39.1	96.6	0.3	57.3	443	3
Lab #1155	10-04-16	5.4	43.2	11.4	40.0	98.3	0.6	57.6	453	7
Lab #1455	11-22-16	5.8	42.4	11.5	40.3	97.2	0.4	57.8	449	5
APAC-CENTRAL, INC. - BUSIEK, FAYETTEVILLE, AR										
Stockpile #1										
Lab #0862	08-22-16	3.4	45.6	8.3	42.7	87.6	10.6	59.1	414	125
Lab #1205	10-11-16	5.2	47.3	7.5	40.0	88.3	10.5	56.3	398	118
Lab #1328	11-01-16	3.6	47.1	7.6	41.7	87.8	10.7	58.0	408	124
Lab #1528	12-07-16	4.1	48.3	8.3	39.3	87.6	10.5	56.4	395	118
APAC-CENTRAL INC. - ROARK CREEK, FAYETTEVILLE, AR										
Stockpile #1										
Lab #0861	08-22-16	3.9	51.8	7.7	36.6	97.0	11.5	54.2	420	125
Lab #1204	10-11-16	4.7	51.2	7.5	36.6	95.0	11.1	53.9	410	120
Lab #1327	11-01-16	2.6	52.9	8.2	36.3	94.2	11.2	54.4	410	122
Lab #1526	12-07-16	4.7	51.8	7.3	36.2	93.7	11.1	53.5	401	119
ARKANSAS LIME COMPANY, INC., BATESVILLE, AR										
ASH GROVE AGGREGATES-DEEPWATER, BUTLER, MO										
Stockpile #1										
Lab #0842	08-17-16	0.4	45.9	11.5	42.2	76.1	0.3	60.6	369	4
Lab #0875	08-26-16	0.6	43.0	11.7	44.7	77.2	0.5	62.5	386	6
Lab #0952	09-02-16	0.7	44.2	12.2	42.9	75.7	0.3	61.3	371	4
Lab #1140	10-07-16	1.7	47.5	11.4	39.4	83.8	0.3	58.1	390	3
Lab #1417	11-18-16	1.0	48.5	10.4	40.1	78.9	2.3	58.5	369	27
ASH GROVES AGGREGATES-ELDORADO SPRI, BUTLER, MO										
ASH GROVE AGGREGATES-FAIR GROVE, BUTLER, MO										
Stockpile #2										
Lab #1074	09-23-16	7.1	51.1	7.7	34.1	89.1	10.6	51.5	367	109
Lab #1334	11-04-16	5.5	52.9	7.4	34.2	90.0	11.0	51.9	373	114

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AGRICULTURAL LIMING MATERIALS SAMPLED FROM
JULY 1 THROUGH DECEMBER 31, 2016

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
ASH GROVE AGGREGATES-FAIR PLAY, BUTLER, MO										
Stockpile #2										
Lab #0901	08-29-16	0.6	50.1	14.1	35.2	96.2	0.1	56.2	432	1
Lab #1056	09-22-16	0.8	48.8	13.7	36.7	96.7	0.1	57.1	442	1
Lab #1193	10-12-16	0.7	48.4	14.5	36.4	97.2	0.1	57.2	445	1
Lab #1492	12-01-16	0.2	47.4	15.0	37.4	95.9	0.3	58.3	447	3
ASH GROVE AGGREGATES INC-S&K, BUTLER, MO										
Stockpile #2										
Lab #0841	08-16-16	1.5	44.3	13.5	40.7	83.9	0.7	59.9	402	8
Lab #1052	09-19-16	1.7	43.4	13.6	41.3	84.2	0.6	60.3	406	7
Lab #1301	10-26-16	2.3	44.4	13.7	39.6	83.5	0.7	58.9	394	8
Lab #1454	11-21-16	1.7	44.7	12.8	40.8	83.2	0.7	59.7	397	8
ASH GROVE AGGREGATES INC-LACYGNE, BUTLER, MO										
Stockpile #1										
Lab #0872	08-25-16	0.5	43.1	9.5	46.9	80.7	1.3	63.4	409	16
Lab #1099	09-28-16	0.9	43.6	10.5	45.0	78.4	1.3	62.2	390	16
Lab #1298	10-26-16	0.9	41.2	10.5	47.4	79.9	1.3	64.0	409	17
Lab #1451	11-21-16	1.2	43.7	11.5	43.6	82.3	1.3	61.4	404	16
Stockpile #2										
Lab #0873	08-25-16	7.5	46.9	9.3	36.3	82.6	1.2	53.6	354	13
Lab #1100	09-28-16	7.9	46.0	9.0	37.1	83.9	1.0	54.0	362	11
Lab #1299	10-26-16	9.5	51.1	8.9	30.5	86.9	0.5	48.6	338	5
Lab #1452	11-21-16	6.0	42.0	8.7	43.3	79.8	1.4	59.0	377	17
ASH GROVE AGGREGATES INC-MARSHFIELD, BUTLER, MO										
ASH GROVE AGGREGATES INC-OSCEOLA, BUTLER, MO										
Stockpile #1										
Lab #0843	08-19-16	2.9	47.2	11.4	38.5	90.9	1.1	57.1	416	13
Lab #0971	09-09-16	2.8	45.6	10.3	41.3	87.5	2.5	58.9	412	29
Lab #1251	10-21-16	1.7	45.6	10.7	42.0	84.0	3.8	59.8	402	45
Lab #1418	11-18-16	3.5	47.5	11.1	37.9	88.2	1.9	56.4	398	21
Lab #0226	04-01-25	0.3	42.9	10.4	46.4	82.7	9.8	63.4	419	124
ASH GROVE AGGREGATES INC-WHEATLAND, BUTLER, MO										
Stockpile #1										
Lab #0784	08-10-16	1.1	48.3	11.9	38.7	95.1	0.1	57.9	441	1
Lab #1012	09-14-16	0.3	48.7	11.5	39.5	96.4	0.2	58.6	452	2
Lab #1294	10-25-16	4.8	46.8	11.7	36.7	95.7	0.1	55.4	424	1
Lab #1552	12-12-16	1.9	49.7	12.1	36.3	94.5	0.1	56.0	423	1
Stockpile #2										
Lab #0785	08-10-16	1.5	43.5	13.3	41.7	92.9	0.2	60.6	450	2
Lab #1013	09-14-16	1.6	44.8	14.5	39.1	93.6	0.2	59.0	442	2
Lab #1295	10-25-16	1.7	44.0	13.3	41.0	94.5	0.3	60.0	453	4
Lab #1618	12-12-16	2.1	45.6	14.1	38.2	94.5	0.4	58.1	439	5
Stockpile #3										
Lab #0786	08-10-16	2.8	47.6	12.3	37.3	95.6	0.2	56.6	433	2
Lab #1014	09-14-16	11.4*	45.8	10.7	32.1	95.0	0.3	50.0	0	0
Lab #1296	10-25-16	3.8	47.8	12.3	36.1	95.3	0.2	55.4	423	2
Lab #1619	12-12-16	3.1	49.2	12.5	35.2	94.6	0.2	55.0	416	2
ASH GROVE AGGREGATES INC-BUFFALO, BUTLER, MO										
Stockpile #1										
Lab #0879	08-24-16	4.3	40.8	10.7	44.2	92.8	11.5	60.8	452	140
Lab #1060	09-21-16	2.2	39.6	11.4	46.8	93.5	11.4	63.5	475	145
Lab #1247	10-18-16	1.4	41.1	12.1	45.4	94.1	11.2	62.9	474	141
Lab #1489	11-29-16	3.3	41.9	11.3	43.5	92.8	11.2	60.8	451	136
Stockpile #2										
Lab #1248	10-18-16	3.5	40.0	11.2	45.3	86.5	10.3	62.0	429	128
Lab #1490	11-29-16	2.3	40.3	13.4	44.0	84.3	10.3	62.1	419	128
BAILEY QUARRIES INC-CHESAPEAKE Q., REPUBLIC, MO										
Stockpile #1										
Lab #0850	08-15-16	0.4	58.5	7.7	33.4	96.2	11.6	52.6	405	122
Lab #1018	09-15-16	0.3	49.0	9.9	40.8	92.0	11.1	59.0	434	131
Lab #1242	10-18-16	0.4	53.8	9.9	35.9	98.6	11.6	55.3	436	128
Lab #1508	11-30-16	1.1	47.7	9.6	41.6	88.8	11.0	59.3	421	130
BAILEY QUARRIES, INC -EUDORA QUARRY, REPUBLIC, MO										
Stockpile #1										
Lab #0851	08-17-16	0.2	43.3	17.4	39.1	95.1	0.2	60.4	459	2
Lab #1105	09-29-16	0.9	43.1	15.6	40.4	94.8	0.1	60.5	459	1
Lab #1293	10-24-16	0.9	43.1	18.0	38.0	94.9	0.1	59.6	452	1
Lab #1579	12-15-16	0.1	44.3	16.5	39.1	95.2	0.1	60.1	458	1
Stockpile #2										
Lab #0852	08-17-16	0.2	53.2	11.7	34.9	87.3	1.0	55.2	386	11

TABLE 1

AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JULY 1 THROUGH DECEMBER 31, 2016

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
BAILEY QUARRIES, INC -EUDORA QUARRY, REPUBLIC, MO (CONTINUED)										
Stockpile #2										
Lab #1106	09-29-16	0.5	49.9	11.0	38.6	84.7	0.6	57.7	391	7
Lab #1285	10-24-16	0.3	51.1	11.7	36.9	85.6	0.6	56.7	388	7
Lab #1580	12-15-16	0.4	52.0	12.4	35.2	88.1	0.7	55.6	392	8
BAILEY QUARRIES, INC.-MADRY QUARRY, REPUBLIC, MO										
Stockpile #2										
Lab #0856	08-19-16	2.8	53.6	10.9	32.7	82.5	1.4	52.6	347	15
Lab #1209	10-14-16	3.4	53.9	9.4	33.3	82.9	3.8	52.4	348	40
Lab #1434	11-21-16	2.9	57.6	10.0	29.5	85.0	1.4	49.9	339	14
Lab #1529	12-09-16	2.7	55.5	11.6	30.2	85.2	1.5	51.0	348	15
BAILEY QUARRIES - SARCOXIE, REPUBLIC, MO										
Stockpile #1										
Lab #0864	08-23-16	7.4	46.0	11.7	34.9	89.7	0.1	53.4	383	1
Lab #1145	10-03-16	7.0	45.5	12.3	35.2	90.2	0.1	54.0	389	1
Lab #1511	12-01-16	6.3	50.2	12.5	31.0	89.1	0.2	51.1	364	2
BAILEY QUARRIES INC-STOCKTON, REPUBLIC, MO										
BARRETT MATERIALS, INC. - BELLE, NEW HAVEN, MO										
Stockpile #1										
Lab #0732	08-01-16	0.5	46.4	9.0	44.1	88.1	10.7	61.1	431	131
Lab #0750	08-08-16	0.4	46.4	9.9	43.3	88.2	10.6	60.8	429	129
Lab #0966	09-06-16	0.2	40.3	11.1	48.4	88.4	11.0	65.1	461	143
Lab #1158	10-05-16	0.2	43.6	11.3	44.9	88.3	11.4	62.6	442	143
Lab #1267	10-26-16	0.2	43.4	10.8	45.6	89.2	10.7	62.9	449	135
BARRETT MATERIALS INC, NEW HAVEN, MO										
BASE ROCK MINERALS, BONNE TERRE, MO										
Stockpile #1										
Lab #0922	08-31-16	1.5	50.1	13.1	35.3	98.4	11.5	55.7	438	128
Lab #1009	09-15-16	1.0	46.3	13.0	39.7	97.1	11.0	59.1	459	130
Lab #1308	10-31-16	0.8	47.9	13.2	38.1	99.1	11.2	58.0	460	130
Stockpile #2										
Lab #0923	08-31-16	0.3	28.8	18.2	52.7	102.3	12.0	70.8	580	170
Lab #1010	09-15-16	0.4	29.5	20.0	50.1	102.4	11.8	69.5	569	164
Lab #1309	10-31-16	0.1	38.8	23.4	37.7	100.3	11.5	61.4	493	141
Lab #1597	12-13-16	0.1	31.2	18.4	50.3	101.0	11.4	69.1	559	158
BUSSEN QUARRIES, INC.-ANTIRE QUARRY, ST LOUIS, MO										
Stockpile #1										
Lab #0893	08-22-16	0.0	1.0	0.8	98.2	102.0	9.6	98.9	807	190
Lab #1002	09-12-16	0.0	0.2	1.4	98.4	100.4	8.2	99.3	797	163
Lab #1240	10-21-16	0.1	0.3	1.1	98.5	101.1	8.8	99.2	803	175
Lab #1588	12-12-16	0.0	0.5	1.2	98.3	99.2	7.1	99.1	787	141
Stockpile #2										
Lab #0892	08-22-16	0.1	28.7	12.0	59.2	96.6	3.1	73.6	569	46
Lab #1001	09-12-16	0.3	33.6	12.3	53.8	97.0	3.1	69.6	540	43
Lab #1239	10-21-16	6.2	37.7	9.1	47.0	95.2	3.0	61.9	471	37
Lab #1589	12-12-16	0.1	36.7	13.4	49.8	96.4	2.6	67.0	517	35
CANE CREEK STONE, POPLAR BLUFF, MO										
Stockpile #1										
Lab #1212	10-10-16	0.4	35.7	14.7	49.2	98.1	11.7	66.9	525	157
Lab #1214	10-13-16	0.4	37.5	14.9	47.2	98.5	11.8	65.5	516	155
Lab #1276	10-26-16	0.1	36.0	15.6	48.3	97.0	11.3	66.7	517	151
Lab #1486	12-01-16	0.3	38.2	15.4	46.1	96.4	11.9	64.9	500	154
CANTERA AGGREGATE INC, CORYDON, IA										
Stockpile #3										
Lab #0739	08-04-16	14.6*	44.0	7.0	34.4	78.7	0.3	49.6	0	0
Lab #0753	08-08-16	9.2	41.3	10.2	39.3	79.6	0.3	55.7	355	3
Lab #1023	09-12-16	9.1	40.9	10.0	40.0	76.9	0.3	56.2	346	3
Lab #1281	10-25-16	11.9*	42.5	9.4	36.2	78.2	0.3	52.5	0	0
Lab #1402	11-10-16	13.0*	42.0	9.0	37.0	77.0	0.0	52.0	0	0
CAPITAL MATERIALS - WARSAW, CLINTON, MO										
Stockpile #1										
Lab #0780	08-08-16	2.6	46.9	11.0	39.5	92.4	0.7	57.8	427	8
Lab #0970	09-06-16	3.1	49.2	11.6	36.1	93.3	0.7	55.4	413	8
Lab #1192	10-10-16	3.3	48.8	10.9	37.0	93.6	0.7	55.7	417	8
Lab #1391	11-10-16	4.0	49.0	12.0	35.0	93.0	1.0	55.0	405	9
Lab #1516	12-09-16	3.1	48.7	10.7	37.5	91.0	0.9	56.1	408	10
Stockpile #2										
Lab #0779	08-08-16	9.5	48.1	6.9	35.5	79.4	4.4	51.7	328	45

TABLE 1

AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JULY 1 THROUGH DECEMBER 31, 2016

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
CAPITAL MATERIALS - TIGHTWAD, CLINTON, MO										
Stockpile #1										
Lab #0782	08-08-16	2.8	45.9	11.8	39.5	89.2	0.4	58.1	414	5
Lab #1054	09-20-16	4.9	44.2	10.8	40.1	87.9	0.5	57.6	405	6
Lab #1305	10-28-16	3.9	45.8	11.7	38.6	87.8	0.4	57.1	401	5
Lab #1488	11-28-16	6.2	44.2	11.2	38.4	85.1	0.7	56.2	382	8
Lab #1554	12-13-16	5.8	46.4	11.0	36.8	87.6	0.6	55.0	385	7
CAPITAL MATERIALS - BAGNELL 13, CLINTON, MO										
Stockpile #1										
Lab #0840	08-15-16	6.3	39.8	14.2	39.7	94.3	11.2	58.2	439	130
Lab #1139	10-05-16	10.0	41.9	12.1	36.0	95.7	11.3	53.7	411	121
Lab #1390	11-08-16	6.0	41.0	14.0	39.0	95.0	11.0	58.0	440	128
Lab #1556	12-14-16	7.2	39.6	14.5	38.7	92.7	10.8	57.3	425	124
CAPITAL MATERIALS CO.,-SNOW ROAD, CLINTON, MO										
Stockpile #1										
Lab #1110	09-30-16	0.1	50.0	9.0	40.9	86.5	6.5	58.8	407	76
Lab #1147	10-04-16	0.1	47.4	8.8	43.7	85.1	6.5	60.8	414	79
Lab #1229	10-21-16	0.1	45.6	9.5	44.8	84.0	6.5	61.9	416	80
Lab #1466	11-28-16	0.1	44.8	10.0	45.1	84.8	6.7	62.3	423	83
Stockpile #2										
Lab #1230	10-21-16	20.4*	43.8	6.2	29.6	84.0	6.3	44.3	0	0
CAPITAL QUARRIES CO., INC.-ARCADIA, JEFFERSON CITY, MO										
Stockpile #1										
Lab #0925	08-31-16	1.5	48.2	12.0	38.3	99.3	11.5	57.6	457	132
Lab #1007	09-15-16	0.4	47.5	15.5	36.6	97.4	11.4	57.8	450	132
Lab #1306	10-31-16	0.4	49.7	16.1	33.8	97.7	11.2	55.9	437	125
Lab #1595	12-13-16	3.5	54.8	11.0	30.7	99.3	11.2	51.0	405	114
CAPITAL QUARRIES, INC.- CEDAR CITY, JEFFERSON CITY, MO										
Stockpile #1										
Lab #0792	08-10-16	0.5	52.0	10.9	36.6	90.1	1.3	56.1	405	15
Lab #0962	09-06-16	0.2	49.2	11.9	38.7	85.6	1.2	58.1	398	14
Lab #1378	11-07-16	0.0	49.0	13.0	38.0	89.0	1.0	58.0	413	16
Lab #1611	11-14-16	0.4	50.1	11.6	37.9	89.5	1.4	57.4	411	16
CAPITAL QUARRIES, INC.- DANVILLE, JEFFERSON CITY, MO										
Stockpile #1										
Lab #0752	08-09-16	1.8	52.2	8.9	37.1	94.1	2.2	55.5	418	24
Lab #1031	09-19-16	1.8	52.2	11.1	34.9	82.7	0.3	54.6	361	3
Lab #1382	11-08-16	3.0	43.0	13.0	41.0	75.0	0.0	60.0	358	5
CAPITAL QUARRIES CO., INC- EUGENE, JEFFERSON CITY, MO										
CAPITAL QUARRIES CO., INC.-OWENSVIL, JEFFERSON CITY, MO										
Stockpile #1										
Lab #0898	08-24-16	0.8	44.3	11.4	43.5	85.7	10.6	61.4	421	130
Lab #1176	10-10-16	0.3	44.3	11.0	44.4	88.7	10.3	62.1	440	128
Lab #1616	11-17-16	0.4	42.7	11.1	45.8	89.0	10.6	63.1	450	134
CAPITAL QUARRIES, INC-STADIUM WEST, JEFFERSON CITY, MO										
CAPITAL QUARRIES INC-ROLLA Q #4, JEFFERSON CITY, MO										
Stockpile #2										
Lab #0894	08-23-16	2.3	20.2	8.7	68.8	91.5	11.2	79.1	579	177
Lab #1041	09-21-16	2.6	22.7	8.5	66.2	91.4	11.3	77.0	563	174
Lab #1265	10-25-16	1.6	19.0	9.0	70.4	92.5	11.0	80.6	596	177
Lab #1614	11-17-16	1.3	17.2	8.7	72.8	88.5	10.8	82.3	583	178
CAPITAL QUARRIES INC-CALIFORNIA Q#5, JEFFERSON CITY, MO										
Stockpile #1										
Lab #0760	08-04-16	0.7	46.9	11.2	41.2	88.5	3.4	59.6	422	41
Lab #0975	09-08-16	0.7	45.7	12.1	41.5	90.5	2.5	60.2	436	30
Lab #1117	10-03-16	1.4	46.9	11.8	39.9	89.0	3.1	58.7	418	36
Lab #1339	11-02-16	0.6	45.2	11.8	42.4	89.9	2.7	60.8	437	33
Lab #1531	12-05-16	0.4	44.0	11.6	44.0	90.0	2.1	62.0	446	26
CAPITAL QUARRIES INC.-HERMANN #14, JEFFERSON CITY, MO										
Stockpile #1										
Lab #0822	08-15-16	0.2	46.4	8.2	45.2	89.7	11.0	61.7	443	136
Lab #1033	09-19-16	0.4	40.4	8.5	50.7	89.0	10.8	65.9	469	142
Lab #1238	10-19-16	0.3	42.1	9.6	48.0	89.1	10.7	64.3	458	138
Lab #1475	11-28-16	2.3	40.6	7.8	49.3	88.8	10.8	64.1	456	139
CAPITAL QUARRIES INC. -HOLTS SUMMIT, JEFFERSON CITY, MO										
Stockpile #1										
Lab #0848	08-18-16	11.7*	43.1	8.8	36.4	70.2	0.6	52.5	0	0
Lab #1114	09-28-16	6.7	40.0	10.1	43.2	72.7	0.7	59.3	345	8
Lab #1161	10-06-16	6.7	40.1	9.6	43.6	70.1	0.3	59.4	333	4
Lab #1617	11-18-16	8.8	43.0	9.2	39.0	70.9	0.6	55.3	313	7

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JULY 1 THROUGH DECEMBER 31, 2016

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
CAPITAL QUARRIES CO., - LINN, JEFFERSON CITY, MO										
Stockpile #1										
Lab #0794	08-10-16	1.9	41.9	10.2	46.0	92.9	11.2	62.6	465	140
Lab #0849	08-18-16	1.9	48.8	8.4	40.9	92.3	11.2	58.1	429	130
Lab #1266	10-26-16	2.2	46.3	8.6	42.9	92.6	11.1	59.6	442	132
Lab #1599	12-15-16	2.8	18.2	9.0	70.0	90.1	10.6	80.0	576	169
CAPITAL QUARRIES, INC - SALEM, JEFFERSON CITY, MO										
Stockpile #1										
Lab #1040	09-21-16	1.0	32.9	13.5	52.6	94.8	11.7	68.9	523	161
Lab #1234	10-18-16	1.2	31.8	13.0	54.0	94.9	11.4	69.8	530	159
Lab #1476	11-29-16	1.7	33.7	13.0	51.6	93.8	11.5	67.8	509	156
CAPITAL QUARRIES INC-SULLIVAN, JEFFERSON CITY, MO										
Stockpile #1										
Lab #0845	08-19-16	6.1	43.3	14.9	35.7	99.0	11.7	55.5	439	130
Lab #0997	09-12-16	9.4	46.6	10.1	33.9	95.6	11.4	51.6	395	118
Lab #1188	10-13-16	9.0	47.3	10.3	33.4	95.5	11.2	51.4	393	115
CARTHAGE CRUSHED LIMESTONE, CARTHAGE, MO										
Stockpile #1										
Lab #0948	09-01-16	0.2	3.9	2.1	93.8	97.3	0.2	96.0	748	4
Lab #1206	10-13-16	0.1	9.0	2.9	88.0	96.7	0.2	92.0	712	4
Lab #1423	11-15-16	0.2	2.4	2.0	95.4	96.7	0.1	97.2	752	2
Stockpile #2										
Lab #0949	09-01-16	0.1	0.7	2.1	97.1	96.7	0.1	98.5	762	2
Lab #1207	10-13-16	0.2	0.8	3.5	95.5	96.3	0.1	97.8	753	2
Lab #1424	11-15-16	0.4	1.4	3.7	94.5	96.2	0.1	97.1	747	2
Stockpile #3										
Lab #0950	09-01-16	0.0	0.4	2.0	97.6	97.1	0.1	98.9	768	2
Lab #1208	10-13-16	0.0	0.2	0.5	99.3	97.0	0.1	99.7	773	2
Lab #1425	11-15-16	0.1	0.5	2.9	96.5	97.1	0.1	98.4	764	2
CENTRAL STONE COMPANY - HUNTINGTON, HANNIBAL, MO										
Stockpile #2										
Lab #0806	08-08-16	0.8	41.1	15.3	42.8	81.8	0.1	62.3	407	1
Lab #0938	08-26-16	1.1	39.5	15.8	43.6	84.7	0.1	63.0	427	1
Lab #1086	09-23-16	1.0	40.4	14.1	44.5	83.8	0.1	63.1	423	1
Lab #1469	11-29-16	1.3	40.3	14.6	43.8	83.8	0.1	62.6	420	1
Stockpile #3										
Lab #0805	08-08-16	0.6	33.0	15.1	51.3	89.9	0.3	68.6	493	4
Lab #0937	08-26-16	0.8	32.4	17.2	49.6	88.4	0.3	68.0	481	4
Lab #1085	09-23-16	1.0	36.4	13.5	49.1	90.4	0.1	66.3	479	1
Lab #1468	11-29-16	1.0	31.9	14.0	53.1	86.3	0.3	69.5	480	4
Stockpile #4										
Lab #0804	08-08-16	0.1	1.0	10.5	88.4	67.1	0.4	95.0	510	8
Lab #0936	08-26-16	0.0	1.1	9.6	89.3	87.2	0.8	95.3	665	15
Lab #1084	09-23-16	0.2	1.3	10.7	87.8	85.5	0.7	94.5	647	13
Lab #1467	11-29-16	0.0	1.4	9.1	89.5	87.8	0.4	95.3	669	8
CENTRAL STONE COMPANY-ANTONIA, HANNIBAL, MO										
CENTRAL STONE COMPANY - BETHEL, SHELBYVILLE, MO										
CENTRAL STONE COMPANY - FARMINGTON, FARMINGTON, MO										
Stockpile #3										
Lab #0921	08-31-16	0.0	0.2	1.7	98.1	90.9	7.0	99.2	721	139
Lab #1008	09-15-16	0.2	0.5	1.9	97.4	89.0	5.9	98.7	702	116
Lab #1307	10-31-16	0.0	0.2	0.7	99.1	86.9	2.6	99.6	692	52
Lab #1596	12-13-16	0.2	0.7	2.0	97.1	87.2	2.5	98.5	687	49
CENTRAL STONE CO - FORT BELLE - #31, FLORISSANT, MO										
Stockpile #2										
Lab #0928	08-22-16	0.1	0.3	0.9	98.7	85.6	2.8	99.3	680	56
Lab #1137	10-06-16	0.0	1.3	0.8	97.9	89.6	2.7	98.7	708	53
Lab #1441	11-22-16	0.0	0.2	0.8	99.0	87.2	2.6	99.5	694	52
Lab #1605	12-08-16	0.1	0.2	1.1	98.6	87.9	3.1	99.3	698	62
CENTRAL STONE COMPANY - PARIS, PARIS, MO										
Stockpile #2										
Lab #0828	08-16-15	5.4	46.7	11.7	36.2	89.5	0.3	54.9	393	3
Lab #1350	10-28-16	6.4	46.2	12.5	34.9	89.9	0.4	54.0	388	4
Lab #1471	11-30-16	8.1	46.5	11.0	34.4	90.2	0.5	52.6	380	5
CENTRAL STONE COMPANY - CURRYVILLE, CURRYVILLE, MO										
Stockpile #2										
Lab #0809	08-10-16	4.6	46.1	10.4	38.9	81.6	1.3	56.7	370	15
Lab #1083	09-22-16	4.6	45.5	10.8	39.1	88.0	1.2	57.0	401	14
Lab #1351	11-03-16	6.0	45.6	11.5	36.9	91.9	1.0	55.2	406	11
Lab #1369	11-08-16	6.0	45.0	10.0	39.0	88.0	1.0	57.0	397	15

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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
CENTRAL STONE COMPANY - CURRYVILLE, CURRYVILLE, MO (CONTINUED)										
Stockpile #2										
Lab #1600	12-05-16	5.3	43.8	10.3	40.6	81.5	1.9	57.7	376	22
CENTRAL STONE COMPANY - PERRY, HANNIBAL, MO										
CENTRAL STONE COMPANY - EWING, HANNIBAL, MO										
Stockpile #1										
Lab #0800	08-03-16	2.0	40.0	9.0	49.0	83.3	0.1	64.4	429	1
Lab #0931	08-24-16	2.4	40.2	12.5	44.9	80.6	0.2	62.5	403	2
Lab #1081	09-20-16	2.9	43.1	12.3	41.7	84.5	0.2	59.9	405	2
Lab #1257	10-20-16	3.6	46.9	12.1	37.4	90.3	0.2	56.4	407	2
Lab #1436	11-15-16	1.3	39.0	13.2	46.5	82.5	0.2	64.2	424	3
CENTRAL STONE COMPANY - TAYLOR, TAYLOR, MO										
CLEVER STONE CO, CLEVER, MO										
Stockpile #1										
Lab #0866	08-24-16	0.6	52.7	12.9	33.8	93.0	0.1	54.7	407	1
Lab #1143	10-05-16	2.4	51.1	13.4	33.1	92.2	0.1	53.9	398	1
Lab #1513	11-28-16	0.4	52.3	13.6	33.7	93.7	0.1	54.9	412	1
CON-AGG OF MO, LLC - BOONE QUARRIES, BOONVILLE, MO										
Stockpile #1										
Lab #0746	08-03-16	6.2	48.9	12.2	32.7	95.1	0.2	52.2	397	2
Lab #0818	08-08-16	5.8	47.4	12.7	34.1	92.7	0.2	53.6	397	2
Lab #0977	09-08-16	6.1	48.7	12.6	32.6	93.1	0.2	52.3	390	2
Lab #1154	10-07-16	4.0	49.9	12.5	33.6	94.4	0.2	53.6	405	2
Lab #1345	11-04-16	6.0	49.3	13.0	31.7	94.0	0.1	51.8	390	1
Lab #1536	12-06-16	7.1	49.1	13.0	30.8	94.4	0.1	50.9	384	1
Stockpile #2										
Lab #0747	08-03-16	5.6	49.1	12.9	32.4	92.9	0.1	52.4	390	1
Lab #0819	08-08-16	5.6	48.5	13.0	32.9	93.9	0.1	52.8	397	1
Lab #0978	09-08-16	5.5	50.0	13.7	30.8	94.1	0.1	51.5	388	1
CON-AGG OF MO, LLC-BOONE QUARRIES, COLUMBIA, MO										
Stockpile #3										
Lab #0813	08-15-16	3.7	27.6	10.4	58.3	95.3	2.0	71.4	545	29
Lab #0946	09-06-16	3.6	28.0	10.6	57.8	96.0	2.5	71.2	547	36
Lab #1090	09-27-16	2.7	27.2	10.4	59.7	96.8	2.2	72.7	563	32
Lab #1358	11-07-16	1.8	26.5	11.1	60.6	96.7	2.1	73.9	572	31
Lab #1445	11-28-16	2.1	27.7	11.1	59.1	96.6	2.0	72.7	562	29
CON-AGG OF MO, LLC-BOONE QUARRIES, COLUMBIA, MO										
CON-AGG OF MO, LLC-BOONE QUARRIES, COLUMBIA, MO										
Stockpile #1										
Lab #0814	08-15-16	2.8	19.3	14.3	63.6	93.3	3.6	77.0	575	55
Lab #0947	09-06-16	3.3	20.5	15.8	60.4	93.2	3.6	75.0	559	54
Lab #1091	09-27-16	2.6	21.4	14.6	61.4	92.5	3.3	75.5	559	50
Lab #1359	11-07-16	2.8	19.0	11.1	67.1	91.1	5.4	78.5	572	85
Lab #1446	11-28-16	2.4	20.8	11.2	65.6	90.6	5.1	77.5	562	79
CON-AGG OF MO, LLC-BOONE QUARRIES, MARSHALL, MO										
Stockpile #5										
Lab #0743	08-03-16	6.8	48.8	8.9	35.5	88.8	4.2	53.0	377	45
Lab #0817	08-08-16	5.7	50.8	8.5	35.0	88.9	4.2	52.8	376	44
Lab #0972	09-07-16	5.2	47.1	9.0	38.7	86.1	4.8	55.9	385	54
Lab #1150	10-06-16	4.4	49.4	10.7	35.5	86.0	1.9	54.3	373	21
Lab #1344	11-04-16	6.2	49.9	10.0	33.9	87.8	2.8	52.4	368	29
Lab #1574	12-14-16	5.4	50.8	9.8	34.0	86.3	3.2	52.6	363	34
CON-AGG OF MO, LLC-BOONE QUARRIES, COLUMBIA, MO										
Stockpile #2										
Lab #0821	08-08-16	3.9	51.3	9.7	35.1	94.1	3.9	53.7	405	42
Lab #0983	09-09-16	3.9	52.3	10.2	33.6	90.1	5.5	52.8	381	58
Lab #1185	10-12-16	4.0	47.6	9.6	38.8	93.2	3.4	56.5	421	38
Lab #1366	11-09-16	2.0	53.0	9.0	36.0	90.0	6.0	55.0	391	66
Lab #1573	12-14-16	3.5	50.4	9.7	36.4	86.5	5.8	54.8	379	64
Stockpile #4										
Lab #0820	08-08-16	3.7	50.5	10.5	35.3	94.7	2.6	54.2	411	28
Lab #0982	09-09-16	4.4	47.2	11.5	36.9	97.2	1.6	55.6	432	18
Lab #1184	10-12-16	3.7	49.7	10.6	36.0	96.6	1.6	54.8	423	18
Lab #1365	11-09-16	1.0	48.0	12.0	39.0	97.0	1.0	58.0	452	14
Lab #1572	12-14-16	2.6	49.7	12.3	35.4	96.8	1.3	55.2	428	14
CON-AGG OF MO, LLC-NORRIS QUARRIES, AMAZONIA, MO										
CON-AGG OF MO, LLC-NORRIS QUARRIES, BARNARD, MO										
Stockpile #2										
Lab #0838	08-09-16	3.5	45.8	10.2	40.5	83.8	1.5	58.1	389	17
Lab #1061	09-20-16	2.4	48.3	10.1	39.2	79.8	1.4	57.3	366	16

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		+8	-8+40	-40+60	-60				ENM	EMg
CON-AGG OF MO, LLC-NORRIS QUARRIES, BARNARD, MO (CONTINUED)										
Stockpile #2										
Lab #1220	10-18-16	2.5	50.7	10.3	36.5	84.6	1.4	55.4	375	15
Lab #1498	11-18-16	3.4	47.5	10.4	38.7	79.3	1.4	56.8	360	16
Lab #1561	12-13-16	3.5	45.8	9.8	40.9	80.3	1.4	58.2	374	16
CON-AGG OF MO, LLC-NORRIS QUARRIES, BETHANY, MO										
Stockpile #1										
Lab #0733	08-01-16	4.6	51.2	9.2	35.0	68.5	1.8	53.3	292	19
Lab #1094	09-28-16	4.0	48.3	9.6	38.1	70.8	1.7	55.9	317	19
Lab #1280	10-24-16	4.2	51.4	9.5	34.9	72.4	1.6	53.5	310	17
Lab #1420	11-15-16	5.8	50.0	8.8	35.4	73.9	1.4	53.2	314	15
Lab #1518	12-05-16	4.7	48.4	8.2	38.7	73.3	1.4	55.7	327	16
CON-AGG OF MO, LLC-NORRIS QUARRIES, SAVANNAH, MO										
Stockpile #1										
Lab #0956	08-29-16	5.7	48.0	10.1	36.2	78.2	1.1	54.3	339	12
Lab #1063	09-20-16	5.2	47.2	10.7	36.9	81.7	1.5	55.1	360	17
Lab #1221	10-18-16	6.0	52.5	10.4	31.1	80.0	1.2	50.5	323	12
Lab #1501	11-29-16	6.1	51.8	9.3	32.8	83.3	1.6	51.3	342	16
Lab #1567	12-13-16	6.1	49.7	7.3	36.9	81.6	1.5	53.7	351	16
CON-AGG OF MO, LLC-NORRIS QUARRIES, DAWN, MO										
Stockpile #2										
Lab #0756	08-09-16	2.8	52.9	9.4	34.9	89.1	1.1	53.8	383	12
Lab #1029	09-16-16	2.0	51.2	11.5	35.3	87.2	0.9	55.0	384	10
Lab #1169	10-07-16	2.4	53.1	10.7	33.8	88.7	1.1	53.5	380	12
Lab #1325	11-04-16	4.6	54.2	9.0	32.2	76.9	1.2	51.2	315	12
Lab #1497	12-02-16	6.4	52.1	10.3	31.2	81.8	0.9	50.4	330	9
CON-AGG OF MO, LLC-NORRIS QUARRIES, CAMERON, MO										
Stockpile #1										
Lab #0955	08-29-16	0.7	52.3	10.7	36.3	79.8	1.2	55.8	356	13
Lab #1065	09-23-16	0.4	44.6	10.6	44.4	67.8	2.3	61.9	336	28
Lab #1317	10-27-16	0.6	49.2	10.4	39.8	74.9	1.6	58.3	350	19
Lab #1503	11-30-16	1.1	44.7	11.7	42.5	74.0	1.8	60.7	359	22
Lab #1569	12-14-16	0.6	47.2	12.6	39.6	75.7	1.6	59.0	357	19
CON-AGG OF MO, LLC-NORRIS QUARRIES, GALLATIN, MO										
Stockpile #1										
Lab #0754	08-09-16	6.9	43.5	7.5	42.1	67.4	1.1	57.5	310	13
Lab #1068	09-23-16	6.8	44.3	9.0	39.9	69.2	1.1	56.4	312	12
Lab #1168	10-05-16	7.8	46.3	8.0	37.9	69.5	1.1	54.3	302	12
Lab #1404	11-14-16	7.0	47.0	8.0	38.0	68.0	1.0	54.0	296	12
CON-AGG OF MO, LLC-NORRIS QUARRIES, RAVENWOOD, MO										
Stockpile #2										
Lab #0904	08-17-16	2.3	51.5	9.0	37.2	82.8	1.7	55.5	367	19
Lab #0957	09-06-16	0.9	44.8	10.6	43.7	79.4	2.1	61.3	389	26
Lab #1200	10-10-16	2.9	47.0	10.1	40.0	82.4	1.8	57.8	381	21
Lab #1507	11-11-16	2.4	49.9	9.9	37.8	80.0	1.9	56.2	360	21
Lab #1559	12-13-16	2.5	48.1	9.6	39.8	80.0	1.8	57.6	369	21
CON-AGG OF MO, LLC-NORRIS QUARRIES, GOWER, MO										
Stockpile #1										
Lab #0908	08-19-16	1.6	55.2	12.8	30.4	84.3	0.9	51.9	350	9
Lab #1198	09-23-16	1.6	51.4	11.4	35.6	83.4	0.9	55.3	369	10
Lab #1315	10-27-16	0.8	47.4	10.0	41.8	80.5	0.9	59.7	384	11
Lab #1504	12-01-16	4.7	48.2	10.0	37.1	81.1	0.9	55.2	358	10
Lab #1565	12-14-16	4.8	48.1	9.4	37.7	79.8	1.1	55.4	353	12
CON-AGG OF MO, LLC-NORRIS QUARRIES, HUNTSVILLE, MO										
Stockpile #2										
Lab #0772	08-12-16	3.2	50.7	12.6	33.5	95.0	1.2	53.7	408	13
Lab #1026	09-13-16	3.9	49.5	13.3	33.3	93.2	0.3	53.7	400	3
Lab #1171	10-10-16	4.0	49.6	12.3	34.1	91.6	1.1	53.9	395	12
Lab #1324	11-03-16	3.5	49.4	12.8	34.3	95.0	1.1	54.3	413	12
Lab #1520	12-07-16	2.8	49.7	13.0	34.5	96.2	1.8	54.7	421	20
CON-AGG OF MO, LLC-NORRIS QUARRIES, SAVANNAH, MO										
CON-AGG OF MO, LLC-NORRIS QUARRIES, KINGSTON, MO										
Stockpile #1										
Lab #0736	08-03-16	0.3	44.1	10.4	45.2	85.6	1.4	62.5	428	17
Lab #1043	09-19-16	2.3	40.0	13.4	44.3	85.4	0.7	62.3	426	9
Lab #1215	10-17-16	1.4	52.4	9.7	36.5	86.6	0.7	55.4	384	8
Lab #1421	11-16-16	2.0	44.8	12.0	41.2	86.2	0.6	59.6	411	7
Lab #1496	12-02-16	2.0	43.5	11.2	43.3	86.1	1.4	60.9	419	17

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JULY 1 THROUGH DECEMBER 31, 2016

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
CON-AGG of MO, LLC-NORRIS QUARRY, LATHROP, MO										
Stockpile #1										
Lab #0907	08-19-16	8.2	49.1	9.1	33.6	83.4	1.6	51.3	343	16
Lab #1196	09-23-16	3.1	43.1	9.7	44.1	69.0	1.2	60.7	335	15
Lab #1273	10-27-16	2.3	43.2	11.6	42.9	76.9	1.9	60.7	373	23
Lab #1521	11-30-16	3.5	48.9	10.3	37.3	77.9	1.4	55.7	347	16
Lab #1563	12-14-16	4.6	47.0	10.0	38.4	74.8	1.6	56.2	336	18
Stockpile #2										
Lab #1197	09-23-16	0.6	49.4	10.9	39.1	86.1	0.8	58.0	399	9
Lab #1274	10-27-16	0.1	49.2	11.6	39.1	86.2	1.0	58.4	402	12
Lab #1522	11-30-16	0.2	46.3	12.6	40.9	86.3	0.9	60.0	414	11
Lab #1564	12-14-16	0.3	46.7	12.6	40.4	85.9	0.9	59.6	410	11
CON-AGG OF MO, LLC-NORRIS QUARRIES, MAITLAND, MO										
Stockpile #1										
Lab #0839	08-09-16	4.4	48.0	10.3	37.3	85.8	1.0	55.5	381	11
Lab #1062	09-20-16	11.0*	43.2	8.3	37.5	78.5	0.8	53.3	0	0
Lab #1219	10-18-16	2.7	40.1	11.1	46.1	76.5	0.7	62.8	384	9
Lab #1269	10-21-16	5.5	47.8	10.6	36.1	84.6	0.8	54.4	368	9
Lab #1271	10-26-16	1.6	46.2	11.6	40.6	86.4	1.0	59.1	409	12
Lab #1499	11-18-16	3.8	48.2	10.4	37.6	83.9	0.9	55.9	375	10
Lab #1560	12-13-16	8.7	48.3	10.2	32.8	86.3	0.8	51.0	352	8
CON-AGG OF MO, LLC-NORRIS QUARRIES, PRINCETON, MO										
Stockpile #5										
Lab #0734	08-02-16	1.2	42.9	9.2	46.7	71.5	1.9	62.9	360	24
Lab #1027	09-14-16	4.8	56.2	7.8	31.2	81.4	1.5	49.9	325	15
Lab #1164	10-03-16	1.8	43.5	10.0	44.7	68.9	2.0	61.6	339	25
Lab #1284	10-27-16	4.3	53.3	9.0	33.4	81.4	1.5	52.1	339	16
Lab #1519	12-06-16	3.5	46.5	10.0	40.0	83.0	1.2	57.6	383	14
CON-AGG OF MO, LLC-NORRIS QUARRIES, RICHMOND, MO										
Stockpile #4										
Lab #1360	11-08-16	0.7	46.2	10.9	42.2	69.1	1.2	60.3	333	14
Lab #1377	11-11-16	1.0	37.0	12.0	50.0	68.0	1.0	67.0	363	17
Lab #1388	11-14-16	1.0	44.0	11.0	44.0	67.0	1.0	61.0	326	15
Lab #1549	12-12-16	0.7	44.5	11.6	43.2	67.2	1.1	61.3	329	13
CON-AGG OF MO, LLC-NORRIS QUARRIES, TRENTON, MO										
Stockpile #2										
Lab #0742	08-05-16	6.0	44.3	8.9	40.8	70.5	1.3	57.2	323	15
Lab #1028	09-15-16	3.2	46.3	10.6	39.9	84.2	1.2	57.8	390	14
Lab #1167	10-05-16	4.1	51.7	9.7	34.5	82.4	1.4	53.2	351	15
Lab #1323	11-02-16	4.1	47.5	9.9	38.5	80.5	1.2	56.3	363	14
Lab #1578	12-15-16	5.0	48.0	9.6	37.4	81.8	1.2	55.2	361	13
CONCO QUARRIES INC Q US 160, WILLARD, MO										
Stockpile #1										
Lab #0774	08-08-16	0.0	14.0	15.5	70.5	95.7	0.1	83.3	638	2
Lab #1102	09-27-16	0.0	10.9	14.0	75.1	94.6	0.3	86.2	653	5
Lab #1399	11-07-16	0.0	10.0	15.0	75.0	98.0	1.0	86.0	674	9
Lab #1587	12-14-16	0.2	23.1	16.8	59.9	96.4	0.3	75.8	584	5
COUNTY LINE QUARRY, WELLSVILLE, MO										
Stockpile #1										
Lab #0810	08-11-16	2.8	45.8	9.9	41.5	92.2	5.5	58.9	434	65
Lab #1128	09-29-16	4.0	50.8	8.3	36.9	92.0	5.1	54.6	402	56
Lab #1374	11-11-16	4.0	50.0	9.0	37.0	91.0	6.0	55.0	401	63
Lab #1472	12-01-16	5.9	50.3	8.1	35.7	92.7	5.4	53.1	394	57
COUNTY LINE STONE, CASSVILLE, MO										
CRAWFORD LIME & MATERIAL CO, CUBA, MO										
Stockpile #2										
Lab #0844	08-19-16	1.7	36.1	10.1	52.1	85.8	10.2	67.2	461	137
Lab #1115	09-29-16	0.8	35.4	10.8	53.0	85.9	10.2	68.3	470	139
Lab #1237	10-18-16	0.8	40.7	11.3	47.2	85.7	10.3	64.2	440	132
Lab #1479	11-29-16	1.1	36.8	10.2	51.9	85.9	10.6	67.2	462	143
CRIDER BROTHERS LIME CO., INC., EMINENCE, MO										
Stockpile #1										
Lab #0789	08-10-16	2.6	49.6	12.9	34.9	93.5	9.9	55.0	412	109
Lab #1078	09-20-16	2.9	50.8	12.9	33.4	96.0	10.4	53.8	413	112
Lab #1224	10-18-16	7.9	42.9	13.8	35.4	99.3	11.3	54.4	432	123
D & D SUPPLY LLC, LONE JACK, MO										
DOSS & HARPER STONE CO., HOUSTON, MO										
Stockpile #2										
Lab #1286	10-25-16	0.7	47.5	15.8	36.0	94.6	11.2	57.4	434	128
Lab #1509	11-31-16	1.9	52.0	12.4	33.7	88.2	11.0	54.1	382	119

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Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
DOSS & HARPER STONE CO, WEST PLAINS, MO										
Stockpile #1										
Lab #1287	10-25-16	0.2	47.5	9.7	42.6	87.4	10.3	60.3	422	124
Lab #1510	11-31-16	0.3	54.5	9.5	35.7	85.0	10.5	55.0	374	116
DOUBLE EAGLE AGGREGATES, MILLER, MO										
DOUBLE EAGLE AGGREGATES CO., INC, MILLER, MO										
Stockpile #1										
Lab #1069	09-20-16	1.7	44.2	9.4	44.7	86.4	9.7	61.4	424	119
Lab #1243	10-19-16	1.2	59.1	8.0	31.7	83.0	9.6	51.3	340	98
E & S ROCK, LLC, HOLDEN, MO										
Stockpile #1										
Lab #0766	08-05-16	3.1	57.6	10.4	28.9	85.5	1.1	49.5	339	11
Lab #1048	09-19-16	6.0	51.2	9.6	33.2	83.4	1.9	51.8	345	20
Lab #1227	10-21-16	6.6	54.3	9.8	29.3	82.8	2.0	48.8	323	20
Lab #1411	11-18-16	3.9	46.8	11.9	37.4	83.5	2.0	56.2	376	22
Stockpile #2										
Lab #0767	08-05-16	4.2	52.9	8.6	34.3	82.1	1.9	52.7	346	20
Lab #1049	09-19-16	3.7	46.9	10.0	39.4	77.7	1.8	57.1	355	21
Lab #1228	10-21-16	6.7	50.4	9.8	33.1	76.9	2.0	51.6	317	21
Lab #1412	11-18-16	3.0	47.2	10.7	39.1	75.8	2.0	57.3	348	23
Stockpile #3										
Lab #1047	09-19-16	1.8	44.2	10.9	43.1	73.6	2.1	60.7	357	25
Lab #1226	10-21-16	1.7	41.8	11.7	44.8	73.5	2.1	62.3	366	26
Lab #1410	11-18-16	1.4	43.7	11.9	43.0	71.9	2.2	61.1	351	27
FISCHER QUARRY & HAULING, LLC, ST. MARY, MO										
Stockpile #1										
Lab #0920	08-31-16	1.5	53.1	14.8	30.6	98.1	0.1	52.8	414	1
Lab #1127	10-04-16	4.3	56.4	12.2	27.1	98.1	0.1	48.5	381	1
Lab #1463	11-22-16	1.3	47.8	15.4	35.5	98.1	0.2	56.7	445	2
GABEL STONE COMPANY, INC, WILLOW SPRINGS, MO										
Stockpile #1										
Lab #1202	10-10-16	1.4	46.7	15.6	36.3	86.8	10.2	57.3	398	117
Lab #1426	11-16-16	2.0	46.7	14.8	36.5	85.7	10.5	57.1	391	120
Lab #1545	12-06-16	2.2	46.6	14.7	36.5	89.7	10.5	57.0	409	120
HEARTLAND MATERIALS LLC, JACKSON, MO										
Stockpile #1										
Lab #0886	08-24-16	0.2	36.2	14.4	49.2	98.1	2.4	66.9	525	32
Lab #0989	09-14-16	0.3	35.1	14.9	49.7	97.2	2.3	67.4	524	31
Lab #1275	10-25-16	8.4	39.4	12.5	39.7	97.6	2.3	57.1	445	26
Lab #1414	11-15-16	4.0	37.6	14.6	43.8	97.4	2.2	62.0	483	27
Lab #1415	11-17-16	4.2	37.4	13.8	44.6	97.7	2.2	62.2	486	27
Lab #1416	11-18-16	4.7	38.9	13.5	42.9	97.5	2.2	60.7	474	27
HIGGINS QUARRY, LLC, LOOSE CREEK, MO										
Stockpile #2										
Lab #0793	08-10-16	1.2	50.9	9.0	38.9	87.6	10.6	57.0	400	121
Lab #1111	09-26-16	1.0	48.7	9.3	41.0	88.6	10.9	58.8	416	128
Lab #1335	11-03-16	1.3	43.3	12.3	43.1	89.4	10.5	61.3	438	129
HIGGINS MATERIALS, LLC, OTTERVILLE, MO										
Stockpile #2										
Lab #0953	08-25-16	0.1	37.9	11.4	50.6	86.4	3.2	66.9	463	43
Lab #0986	09-16-16	0.3	34.6	15.3	49.8	93.2	0.3	67.6	504	4
Lab #1179	10-11-16	0.2	50.4	12.1	37.3	88.9	0.3	57.2	407	3
Lab #1346	11-04-16	0.0	47.6	13.5	38.9	90.1	0.2	58.9	425	2
Lab #1575	12-16-16	0.1	54.8	10.7	34.4	88.9	0.4	54.5	388	4
HOSTETLER QUARRY, LLC, BUFFALO, MO										
Stockpile #1										
Lab #0881	08-24-16	4.7	48.8	8.5	38.0	82.9	10.0	55.3	367	111
Lab #1058	09-21-16	5.3	41.5	6.8	46.4	85.5	10.3	60.9	416	125
Lab #1250	10-18-16	4.5	44.9	7.6	43.0	86.1	10.2	58.8	405	120
Lab #1491	11-29-16	6.4	45.1	7.6	40.9	86.1	10.4	56.7	391	118
HOUSE SPRINGS QUARRY, HOUSE SPRINGS, MO										
Stockpile #1										
Lab #0899	08-25-16	11.2*	42.8	6.5	39.5	93.5	3.6	54.1	0	0
Lab #1000	09-12-16	11.5*	32.7	5.5	50.3	96.5	4.4	61.8	0	0
Lab #1156	10-04-16	14.8*	36.7	6.3	42.2	95.0	4.5	55.2	0	0
HUNTER STONE CO, ELLSINORE, MO										
Stockpile #1										
Lab #0790	08-10-16	0.1	40.6	14.8	44.5	96.2	11.5	63.5	489	146
Lab #1077	09-20-16	0.3	54.3	12.4	33.0	97.6	11.7	54.0	422	126

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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
HUTCHENS CONSTRUCTION-PURDY, CASSVILLE, MO										
Stockpile #1										
Lab #1019	09-16-16	2.6	50.4	13.3	33.7	96.8	0.4	54.3	420	4
Lab #1395	11-10-16	3.0	50.0	13.0	34.0	97.0	0.0	54.0	417	3
HUTCHENS CONSTRUCTION-EAGLE ROCK, CASSVILLE, MO										
Stockpile #2										
Lab #0778	08-02-16	3.6	40.4	10.2	45.8	90.1	10.9	62.0	447	135
Lab #1107	09-30-16	2.5	42.5	10.5	44.5	89.9	10.9	61.4	442	134
HUTCHENS CONSTRUCTION CO-SHELL KNOB, CASSVILLE, MO										
HUTCHENS CONSTRUCTION-WASHBURN, CASSVILLE, MO										
IDEKER INC, EXCELSIOR SPRINGS, MO										
Stockpile #1										
Lab #0903	08-10-16	0.6	57.8	9.6	32.0	89.7	0.5	52.2	375	5
Lab #1066	09-23-16	2.3	61.7	8.1	27.9	88.3	0.5	48.2	340	5
Lab #1272	10-27-16	0.2	43.5	14.8	41.5	88.4	0.4	61.3	433	5
Lab #1500	11-21-16	0.4	48.3	12.6	38.7	91.3	0.5	58.3	426	6
Lab #1562	12-14-16	0.5	53.4	11.0	35.1	91.1	0.5	55.1	401	6
ILC RESOURCES, URBANDALE, IA										
JASPER STONE LLC, JASPER, MO										
Stockpile #1										
Lab #0855	08-18-16	2.9	41.1	14.8	41.2	97.0	0.2	60.4	468	2
Lab #1073	09-21-16	3.5	42.0	14.0	40.5	96.4	0.2	59.4	458	2
Lab #1291	10-26-16	4.4	41.2	15.4	39.0	96.7	0.1	58.5	453	1
Lab #1429	11-17-16	3.0	35.2	15.9	45.9	96.5	0.2	64.2	496	3
Stockpile #2										
Lab #0854	08-18-16	2.1	6.5	12.7	78.7	97.2	0.1	87.9	684	2
Lab #1071	09-21-16	3.2	4.4	7.7	84.7	97.6	0.1	90.4	706	2
Lab #1290	10-26-16	0.0	0.8	4.1	95.1	97.8	0.1	97.8	765	2
Lab #1428	11-17-16	0.2	1.2	6.5	92.1	97.5	0.2	96.3	751	4
Stockpile #3										
Lab #1072	09-21-16	2.0	3.9	7.7	86.4	98.0	0.1	92.0	721	2
JENKINS QUARRY, CASSVILLE, MO										
Stockpile #1										
Lab #0857	08-19-16	0.1	37.5	11.5	50.9	83.9	9.5	67.2	451	128
Lab #0867	08-24-16	0.1	35.2	11.8	52.9	85.2	9.5	68.8	469	131
Lab #0870	08-25-16	0.1	36.1	11.2	52.6	86.3	10.0	68.3	472	137
Lab #1210	10-14-16	0.1	35.4	11.8	52.7	88.1	10.0	68.6	484	137
Stockpile #2										
Lab #1211	10-14-16	0.2	36.3	10.3	53.2	88.0	10.1	68.5	482	138
Stockpile #3										
Lab #1433	11-21-16	5.6	44.3	7.1	43.0	91.2	10.7	58.3	426	125
Lab #1530	12-09-16	4.3	48.3	8.8	38.6	87.9	10.4	56.0	393	116
Lab #1585	12-13-16	6.4	49.8	7.7	36.1	88.4	10.5	53.2	376	112
JOPLIN STONE CO Q DUENWEG, JOPLIN, MO										
Stockpile #2										
Lab #0775	08-09-16	5.5	39.3	14.1	41.1	94.4	0.1	59.4	448	1
Lab #1016	09-13-16	6.1	40.2	13.5	40.2	87.4	0.2	58.4	408	2
Lab #1241	10-17-16	7.6	39.1	10.3	43.0	84.4	0.2	59.0	398	2
Lab #1400	11-09-16	6.0	42.0	13.0	40.0	94.0	0.0	58.0	434	1
Lab #1544	12-05-16	0.5	28.7	18.3	52.5	94.7	0.1	70.7	535	1
LEO JOURNAGAN CONSTRUCTION CO, INC, SPRINGFIELD, MO										
Stockpile #1										
Lab #0865	08-24-16	2.0	50.3	13.3	34.4	97.0	0.2	55.0	426	2
Lab #1142	10-05-16	2.1	50.5	14.0	33.4	96.3	0.3	54.4	419	3
Lab #1512	11-28-16	7.4	51.0	12.3	29.3	95.8	0.2	49.4	379	2
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Stockpile #3										
Lab #0802	08-03-16	0.3	17.2	10.6	71.9	87.7	0.7	82.6	579	12
Lab #0934	08-25-16	0.3	17.1	9.1	73.5	87.0	0.7	83.2	579	12
KEMP STONE, INC, PRYOR, OK										
KERFORD LIMESTONE CO, WEEPING WATER, NE										
Stockpile #1										
Lab #0834	08-01-16	0.0	0.1	0.1	99.8	93.0	0.5	99.9	743	10
Lab #1524	12-02-16	0.0	0.3	0.1	99.6	93.0	0.8	99.7	742	16
KING QUARRY, THAYER, MO										
Stockpile #1										
Lab #1213	10-13-16	0.0	49.3	7.7	43.0	85.1	10.1	59.9	408	121
Lab #1376	11-01-16	0.0	50.0	8.0	42.0	85.0	10.0	60.0	406	120

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AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JULY 1 THROUGH DECEMBER 31, 2016

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
KNOX COUNTY STONE CO, INC, EDINA, MO										
Stockpile #2										
Lab #0799	08-02-16	3.4	40.0	10.6	46.0	86.8	1.9	62.4	433	24
Lab #0935	08-25-16	1.5	39.5	12.9	46.1	87.7	2.7	63.7	447	34
Lab #1030	09-15-16	3.2	41.8	11.9	43.1	85.2	2.7	60.7	414	33
Lab #1253	10-14-16	4.7	44.3	12.3	38.7	90.3	2.5	57.2	413	29
Lab #1435	11-14-16	3.0	39.7	10.9	46.4	90.5	2.7	62.9	455	34
Lab #1608	12-12-16	2.8	40.1	12.9	44.2	87.5	2.7	62.0	434	33
L & W QUARRIES, INC - CLARKDALE #8, WEST BURLINGTON, IA										
Stockpile #1										
Lab #0741	08-04-16	10.1*	48.2	8.8	32.9	79.9	0.3	50.2	0	0
Lab #1021	09-12-16	10.5*	45.7	8.5	35.3	73.8	0.4	51.8	0	0
Lab #1283	10-25-16	13.0*	45.1	8.7	33.2	69.1	0.3	49.7	0	0
L & W QUARRIES, INC - WALNUT CITY, WEST BURLINGTON, IA										
Stockpile #1										
Lab #0740	08-04-16	5.9	45.9	8.5	39.7	82.7	0.2	56.3	372	2
Lab #1022	09-12-16	6.8	46.3	9.5	37.4	82.5	0.2	54.7	361	2
Lab #1282	10-25-16	14.4*	49.9	8.9	26.8	88.0	0.4	44.6	0	0
Lab #1401	11-10-16	20.0*	49.0	8.0	23.0	87.0	0.0	40.0	0	0
L & W QUARRIES INC. KAHOKA, WEST BURLINGTON, IA										
Stockpile #1										
Lab #0798	08-01-16	6.2	46.8	9.6	37.4	88.1	1.9	54.9	387	21
Lab #0930	08-24-16	5.1	49.0	9.8	36.1	88.5	1.7	54.2	384	18
Lab #1079	09-16-16	6.0	48.9	9.6	35.5	90.3	1.5	53.5	386	16
Lab #1254	10-19-16	4.6	48.7	10.9	35.8	89.2	2.0	54.5	389	22
Lab #1439	11-16-16	7.2	47.5	9.1	36.2	91.3	0.6	53.5	391	6
Lab #1609	12-13-16	9.8	45.7	10.0	34.5	88.7	1.9	51.9	368	20
Stockpile #2										
Lab #1255	10-19-16	6.5	50.3	10.6	32.6	87.7	4.0	51.5	362	41
Lab #1438	11-16-16	6.7	48.5	7.7	37.1	86.5	4.0	53.8	373	43
LAFARGE WEST INC.-PERRYVILLE, PERRYVILLE, MO										
Stockpile #2										
Lab #0919	08-31-16	1.2	61.2	10.0	27.6	93.9	2.2	48.9	367	22
Lab #1122	10-04-16	1.0	57.6	12.1	29.3	93.9	2.4	51.0	383	24
Lab #1462	11-22-16	0.6	60.5	10.6	28.3	93.8	2.2	49.8	374	22
LCL FARMS INC, KEOKUK, IA										
LEAD BELT MATERIALS CO., INC., PARK HILLS, MO										
Stockpile #1										
Lab #0924	08-31-16	3.0	54.8	9.6	32.6	102.2	12.1	52.1	426	126
Lab #1011	09-15-16	5.0	56.0	10.6	28.4	99.9	11.5	48.8	390	112
Lab #1310	10-31-16	1.7	55.9	10.3	32.1	99.8	11.7	52.3	417	122
Lab #1598	12-13-16	1.5	56.7	10.0	31.8	98.8	11.0	52.0	411	114
LILE QUARRY INC., STRAFFORD, MO										
Stockpile #2										
Lab #0777	08-11-16	0.4	48.3	10.8	40.5	80.9	9.8	59.1	382	116
Lab #1146	10-04-16	2.0	51.3	8.7	38.0	97.5	11.8	56.0	437	132
Lab #1329	11-02-16	2.0	54.2	9.2	34.6	88.0	10.8	53.7	378	116
MAGRUDER LIMESTONE CO-ASHLEY, TROY, MO										
Stockpile #1										
Lab #0831	08-17-16	1.4	49.3	9.1	40.2	82.5	2.7	58.0	383	31
Lab #1136	10-05-16	0.8	49.5	7.6	42.1	81.6	2.6	59.0	385	31
Lab #1371	11-09-16	1.0	47.0	9.0	44.0	83.0	3.0	61.0	404	32
Stockpile #2										
Lab #0830	08-17-16	0.6	48.7	11.4	39.3	86.8	2.3	58.3	405	27
Lab #1135	10-05-16	0.5	49.1	10.6	39.8	88.0	2.9	58.4	411	34
Lab #1370	11-09-16	0.0	48.0	11.0	41.0	78.0	2.0	60.0	372	27
MAGRUDER LIMESTONE - FOLEY QUARRY, TROY, MO										
Stockpile #2										
Lab #0825	08-09-16	10.9*	51.8	7.4	29.9	95.6	2.7	47.3	0	0
Lab #1130	09-30-16	8.2	47.1	6.8	37.9	96.1	3.4	53.8	413	37
Lab #1353	11-04-16	11.2*	47.4	6.8	34.6	96.0	3.1	50.5	0	0
Stockpile #3										
Lab #0808	08-09-16	9.4	57.8	8.1	24.7	92.5	2.7	44.0	326	24
Lab #1131	09-30-16	13.4*	55.2	7.0	24.4	96.0	2.7	42.4	0	0
Lab #1354	11-04-16	13.0*	53.1	7.7	26.2	96.0	2.5	44.1	0	0
MAGRUDER LIMESTONE CO-FRANKFORD, TROY, MO										
Stockpile #1										
Lab #0807	08-09-16	2.8	41.4	12.0	43.8	95.9	1.7	61.4	471	21
Lab #0940	08-29-16	4.0	42.7	11.5	41.8	97.6	1.5	59.4	464	18
Lab #1129	09-30-16	0.8	41.8	12.4	45.0	96.7	1.7	62.9	487	21

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		+8	-8+40	-40+60	-60				ENM	EMg
MAGRUDER LIMESTONE CO-FRANKFORD, TROY, MO (CONTINUED)										
Stockpile #1										
Lab #1352	11-04-16	0.8	39.9	13.9	45.4	98.2	1.8	63.7	501	23
Lab #1601	12-06-16	0.7	40.7	12.7	45.9	97.0	1.5	63.7	494	19
MAGRUDER LIMESTONE CO. - SHELBYNA, TROY, MO										
Stockpile #1										
Lab #0803	08-04-16	1.9	45.8	15.9	36.4	75.9	0.4	57.4	348	5
Lab #0932	08-25-16	2.6	43.8	15.1	38.5	78.3	0.5	58.5	367	6
Lab #1082	09-21-16	2.8	46.3	13.6	37.3	75.8	0.9	57.0	346	10
Lab #1252	10-13-16	0.3	44.5	14.4	40.8	87.6	0.9	60.6	424	11
Lab #1440	11-21-16	0.2	48.1	12.7	39.0	90.1	0.9	58.6	423	11
Lab #1607	12-09-16	0.9	47.2	13.8	38.1	85.2	0.7	58.2	397	8
MAGRUDER LIMESTONE - SILEX QUARRY, TROY, MO										
Stockpile #2										
Lab #0811	08-12-16	1.5	46.3	8.9	43.3	91.8	3.1	60.2	442	37
Lab #1133	10-04-16	1.4	43.8	8.9	45.9	91.2	2.9	62.2	454	36
Lab #1372	11-10-16	3.0	52.0	8.0	36.0	95.0	3.0	55.0	412	27
Lab #1603	12-07-16	3.2	51.0	9.6	36.2	91.6	2.1	54.7	401	23
MAGRUDER LIMESTONE CO Q TROY, TROY, MO										
Stockpile #1										
Lab #0812	08-12-16	10.7*	51.4	7.0	30.9	84.8	3.2	48.0	0	0
Lab #1134	10-04-16	8.1	46.0	9.6	36.3	95.8	2.0	53.6	410	21
Lab #1373	11-10-16	11.0*	54.0	7.0	29.0	84.0	3.0	46.0	0	0
Lab #1604	12-07-16	10.3*	48.6	8.9	32.2	89.5	2.7	49.7	0	0
MANSFIELD LIME & STONE, MANSFIELD, MO										
MARTIN MARIETTA MATERIALS OF K.C., PARKVILLE, MO										
MARTIN MARIETTA MATERIALS OF K.C., KANSAS CITY, MO										
Stockpile #2										
Lab #0905	08-18-16	1.2	27.7	13.5	57.6	91.1	0.8	72.6	529	12
Lab #1199	09-23-16	1.8	31.8	15.8	50.6	93.0	0.6	68.0	506	8
Lab #1316	10-27-16	0.1	34.7	14.5	50.7	92.2	0.8	68.1	502	11
Lab #1523	12-01-16	1.8	30.2	14.0	54.0	92.6	0.7	70.0	518	10
Lab #1566	12-14-16	2.4	30.1	14.8	52.7	92.2	0.6	69.1	510	8
MARTIN MARIETTA MATERIALS OF K.C., RANDOLPH, MO										
Stockpile #1										
Lab #0858	08-22-16	19.3*	49.4	6.8	24.5	92.0	0.5	40.9	0	0
Stockpile #2										
Lab #0954	09-01-16	12.1*	50.7	9.5	27.7	91.7	0.5	46.1	0	0
Stockpile #3										
Lab #1050	09-21-16	1.2	59.2	10.5	29.1	90.0	0.5	50.2	361	5
Lab #1093	09-27-16	3.1	60.8	8.2	27.9	92.2	0.5	48.0	354	5
Lab #1173	10-10-16	1.5	56.0	11.9	30.6	91.1	0.5	51.7	377	5
Lab #1407	11-17-16	2.3	58.6	8.9	30.2	89.6	0.7	50.2	360	7
Lab #1550	12-12-16	1.8	54.8	10.8	32.6	91.2	0.5	52.8	385	5
MATERIAL DEPOT AT BUTTERFIELD, CASSVILLE, MO										
Stockpile #1										
Lab #1020	09-16-16	2.2	49.1	13.7	35.0	96.6	0.3	55.5	429	3
Lab #1396	11-10-16	4.0	50.0	13.0	33.0	96.0	0.0	53.0	411	3
MERTENS CONST CO-AUXVASSE, KINGDOM CITY, MO										
Stockpile #2										
Lab #1259	10-24-16	4.5	51.0	11.1	33.4	98.1	4.0	52.8	414	42
Lab #1368	11-08-16	5.0	52.0	10.0	33.0	97.0	5.0	52.0	402	48
Lab #1375	11-11-16	3.0	55.0	10.0	32.0	97.0	7.0	51.0	398	69
Lab #1473	12-02-16	3.9	53.6	10.4	32.1	97.2	5.7	51.7	402	59
Stockpile #6										
Lab #0833	08-18-16	11.8*	54.3	7.9	26.0	95.7	1.0	44.3	0	0
Lab #1138	10-07-16	6.6	54.2	8.4	30.8	87.9	6.6	49.4	347	65
Lab #1258	10-24-16	5.6	53.9	8.9	31.6	89.0	5.5	50.4	359	55
Lab #1367	11-08-16	5.0	53.0	9.0	34.0	87.0	6.0	52.0	364	67
Lab #1474	12-02-16	7.0	51.8	11.4	29.8	97.8	4.5	49.6	388	45
MERTENS CONST. CO-TIPTON QUARRY, KINGDOM CITY, MO										
Stockpile #1										
Lab #0761	08-04-16	4.7	45.9	6.3	43.1	74.6	6.5	58.4	348	76
Lab #0976	09-08-16	5.9	50.4	8.2	35.5	78.4	5.6	53.0	333	59
Lab #1118	10-03-16	7.9	48.8	7.8	35.5	78.3	5.5	52.4	328	58
Lab #1340	11-02-16	5.5	47.1	8.7	38.7	80.7	5.4	55.7	360	60
Lab #1532	12-05-16	2.7	41.6	11.3	44.4	82.4	5.1	61.6	406	63

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		+8	-8+40	-40+60	-60				ENM	EMg
MERTENS CONST CO-Q-REFORM, KINGDOM CITY, MO										
Stockpile #1										
Lab #0797	08-12-16	4.8	46.2	10.8	38.2	85.2	4.4	56.2	383	49
Lab #1034	09-19-16	4.8	44.3	12.3	38.6	89.3	3.7	57.1	408	42
Lab #1191	10-14-16	4.3	45.7	12.0	38.0	86.0	4.2	56.6	390	48
Lab #1387	11-11-16	9.0	49.0	10.0	33.0	87.0	4.0	51.0	355	38
MFA INC, COLUMBIA, MO										
MID-MISSOURI LIMESTONE, INC-BIG SPR, KINGDOM CITY, MO										
Stockpile #1										
Lab #0751	08-09-16	7.0	59.2	7.5	26.3	93.3	0.3	45.6	340	3
Lab #1032	09-19-16	9.2	55.5	8.4	26.9	92.4	1.9	45.8	339	17
Lab #1189	10-12-16	6.7	55.6	8.8	28.9	92.8	0.5	48.1	357	5
Lab #1381	11-08-16	7.0	60.0	9.0	25.0	92.0	0.0	45.0	333	4
MID-MISSOURI LIMESTONE INC-MBQ, KINGDOM CITY, MO										
Stockpile #1										
Lab #0738	08-02-16	6.8	47.6	11.3	34.3	92.1	0.9	53.0	390	10
Lab #0911	08-30-16	5.7	49.0	11.6	33.7	94.9	1.4	52.9	402	15
Lab #1311	11-01-16	7.9	49.8	12.2	30.1	91.9	0.6	49.9	367	6
MID-MISSOURI LIMESTONE, INC.-HOUSTO, HOUSTONIA, MO										
Stockpile #1										
Lab #0768	08-05-16	5.3	49.4	7.9	37.4	85.1	3.8	54.5	371	41
Lab #0984	09-09-16	6.9	50.0	7.7	35.4	82.4	4.2	52.5	346	44
Lab #1148	10-04-16	6.9	49.8	7.7	35.6	84.6	4.5	52.7	356	47
Lab #1347	11-04-16	9.1	51.5	6.8	32.6	83.1	5.3	49.6	329	53
Lab #1537	12-09-16	7.6	50.1	8.3	34.0	84.3	4.3	51.5	347	44
Stockpile #2										
Lab #0769	08-05-16	5.3	47.8	12.4	34.5	94.1	0.2	53.9	406	2
Lab #0985	09-09-16	4.7	48.5	12.7	34.1	90.7	0.2	53.8	391	2
Lab #1149	10-04-16	5.7	48.6	12.8	32.9	91.7	0.2	52.7	387	2
Lab #1348	11-04-16	5.9	50.1	11.4	32.6	92.7	0.2	52.0	385	2
Lab #1538	12-09-16	5.9	50.5	11.5	32.1	92.5	0.2	51.6	382	2
MID-MISSOURI LIMESTONE-RIGGS, KINGDOM CITY, MO										
Stockpile #2										
Lab #0827	08-15-16	4.6	51.6	8.4	35.4	88.8	6.3	53.3	379	67
Lab #0945	09-06-16	4.1	52.7	8.4	34.8	89.2	6.1	53.0	378	65
Lab #1088	09-27-16	4.5	52.7	8.4	34.4	89.7	6.5	52.6	378	68
Lab #1357	11-07-16	6.2	53.2	7.9	32.7	88.7	6.0	50.7	360	61
Lab #1444	11-28-16	5.8	52.2	7.2	34.8	88.6	6.2	52.2	370	65
Stockpile #3										
Lab #0826	08-15-16	2.3	43.7	10.9	43.1	89.3	2.9	60.6	433	35
Lab #0944	09-06-16	3.4	47.3	12.1	37.2	92.8	3.0	56.3	418	34
Lab #1089	09-27-16	1.9	45.0	11.3	41.8	91.0	2.7	59.8	436	32
Lab #1356	11-07-16	1.8	44.7	11.2	42.3	90.6	2.7	60.2	436	33
Lab #1443	11-28-16	3.4	43.9	9.7	43.0	90.3	3.0	59.8	432	36
MIDWEST MINERALS, INC - FORT SCOTT, PITTSBURG, KS										
Stockpile #1										
Lab #0783	08-09-16	0.3	50.3	12.2	37.2	87.2	0.3	57.1	398	3
Lab #0951	09-01-16	0.4	49.5	12.3	37.8	87.4	0.3	57.6	402	3
Lab #1246	10-17-16	0.3	50.6	12.1	37.0	86.9	0.4	56.9	396	5
Lab #1389	11-07-16	1.0	50.0	13.0	36.0	88.0	0.0	56.0	394	3
Lab #1515	12-05-16	0.4	50.1	11.7	37.8	86.0	0.3	57.3	395	3
MIDWEST MINERALS INC - JASPER, PITTSBURG, KS										
Stockpile #1										
Lab #0853	08-18-16	0.3	28.6	17.9	53.2	97.3	0.1	71.1	553	1
Lab #1070	09-21-16	0.3	26.3	18.3	55.1	97.6	0.2	72.7	567	3
Lab #1288	10-26-16	0.5	27.8	19.9	51.8	97.3	0.2	70.7	550	3
Lab #1431	11-17-16	0.2	26.9	18.6	54.3	97.4	0.1	72.2	562	1
MISSISSIPPI LIME COMPANY, STE GENEVIEVE, MO										
Stockpile #1										
Lab #0917	08-31-16	0.0	0.2	0.8	99.0	98.6	0.2	99.5	785	4
Lab #1120	10-04-16	0.0	0.2	0.8	99.0	98.5	0.2	99.5	784	4
Lab #1460	11-22-16	0.0	0.2	0.7	99.1	98.5	0.2	99.6	785	4
Stockpile #3										
Lab #0918	08-31-16	0.0	47.3	28.1	24.6	98.4	0.2	53.3	419	2
Lab #1121	10-04-16	0.0	44.1	29.1	26.8	98.4	0.2	55.3	435	2
Lab #1461	11-22-16	0.0	44.8	26.5	28.7	98.3	0.2	55.8	439	2
MK MINERALS INC., WATHENA, KS										
Stockpile #1										
Lab #0906	08-18-16	0.0	0.2	0.3	99.5	87.7	0.5	99.7	700	10
Lab #1064	09-20-16	0.0	0.1	0.1	99.8	86.6	0.7	99.9	692	14

TABLE 1

AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JULY 1 THROUGH DECEMBER 31, 2016

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
MK MINERALS INC., WATHENA, KS (CONTINUED)										
Stockpile #1										
Lab #1222	10-18-16	0.0	0.2	0.5	99.3	84.8	0.6	99.7	676	12
Lab #1502	11-29-16	0.2	0.5	0.5	98.8	86.4	0.6	99.2	686	12
Lab #1568	12-13-16	0.0	0.1	0.4	99.5	85.8	0.7	99.8	685	14
MO VALLEY GRAIN & PELLETIZING, MISSOURI VALLEY, IA										
MOUNTAIN GROVE QUARRY, MANSFIELD, MO										
Stockpile #1										
Lab #1427	11-16-16	0.5	49.6	9.8	40.1	88.6	10.7	58.4	414	125
Lab #1546	12-06-16	0.1	41.5	11.2	47.2	87.6	10.3	64.3	451	132
MULBERRY LIMESTONE QUARRY CO.-JASPER, MULBERRY, KS										
Stockpile #1										
Lab #1144	10-06-16	0.1	44.6	13.8	41.5	92.7	0.2	60.9	452	2
Lab #1289	10-26-16	0.1	48.5	14.0	37.4	93.9	0.3	57.9	435	3
Lab #1292	10-27-16	0.1	46.9	14.7	38.3	94.0	0.3	58.8	443	4
Lab #1430	11-17-16	0.8	49.2	14.2	35.8	96.9	0.2	56.6	439	2
NEMO SAND & GRAVEL, QUARRY, PITTSBURG, MO										
Stockpile #1										
Lab #0787	08-10-16	4.7	31.6	9.5	54.2	81.7	10.0	67.8	443	136
Lab #1015	09-14-16	0.2	35.9	9.7	54.2	83.6	10.0	69.0	461	138
Lab #1297	10-25-16	0.4	38.8	8.8	52.0	82.9	9.8	67.0	444	131
Lab #1553	12-12-16	0.1	41.8	9.2	48.9	85.3	10.0	64.9	443	130
OAKLEY FERTILIZER, INC, NORTH LITTLE ROCK, AR										
OROS & BUSCH APPLICATION TECHNOLOGY, CARLINVILLE, IL										
OSAGE QUARRIES, INC, KINGDOM CITY, MO										
PELLETIZING COMPANY INC, GORDONSVILLE, TN										
SCAGGS ROCK-N-LIME, INC., PATTERSON, MO										
Stockpile #3										
Lab #0788	08-09-16	2.5	22.9	16.8	57.8	99.8	11.8	73.6	588	174
Lab #1075	09-19-16	3.9	13.9	22.5	59.7	96.0	11.5	76.7	589	176
Lab #1278	10-27-16	0.2	11.4	32.0	56.4	98.9	12.1	78.5	621	190
Lab #1485	11-30-16	5.2	21.5	29.6	43.7	100.9	12.5	66.8	539	167
SCHILDBERG CONST. CO.-DECATUR, GREENFIELD, IA										
Stockpile #2										
Lab #0835	08-02-16	2.3	43.5	10.5	43.7	76.5	1.1	60.9	373	13
Lab #0960	09-06-16	2.9	43.0	10.2	43.9	76.9	1.1	60.8	374	13
Lab #1218	10-10-16	2.4	44.9	11.0	41.7	76.4	1.1	59.5	364	13
Lab #1505	11-03-16	2.9	42.5	9.7	44.9	71.2	1.1	61.3	349	13
Lab #1525	12-09-16	3.0	42.9	11.2	42.9	68.4	1.4	60.3	330	17
SCHILDBERG CONST. CO.-GRAHAM MO Q, GREENFIELD, IA										
SCHILDBERG CONST. CO.-SHAMBAUGH Q, GREENFIELD, IA										
Stockpile #1										
Lab #0837	08-04-16	0.7	48.8	12.5	38.0	86.7	1.1	57.7	400	13
Lab #0958	09-06-16	6.8	49.8	10.2	33.2	87.5	1.0	51.8	362	10
Lab #1201	10-10-16	10.4*	47.4	9.3	32.9	88.2	1.1	50.3	0	0
Lab #1270	10-26-16	1.5	50.6	11.7	36.2	87.9	1.3	55.9	393	15
Lab #1318	11-03-16	7.4	49.3	9.8	33.5	88.5	1.0	51.7	366	10
Lab #1506	11-11-16	1.8	48.8	10.6	38.8	87.0	1.4	57.4	399	16
Lab #1558	12-09-16	0.6	48.9	12.4	38.1	88.1	1.4	57.8	407	16
SCHILDBERG CONST. CO.-WATTERSON, GREENFIELD, IA										
Stockpile #2										
Lab #0836	08-02-16	4.0	43.7	10.3	42.0	73.5	1.4	59.1	348	17
Lab #0959	09-06-16	6.8	37.8	7.9	47.5	69.7	1.6	61.7	344	20
Lab #1217	10-10-16	2.1	39.2	8.7	50.0	68.7	2.0	65.0	357	26
Lab #1319	11-03-16	6.7	43.0	8.6	41.7	70.5	1.6	57.6	325	18
Lab #1557	12-09-16	2.3	40.4	9.7	47.6	68.3	1.8	63.5	347	23
SHAWNEE STONE - CYPRESS PLANT, CYPRESS, IL										
SHAWNEE STONE - JONESBORO PLANT, ANNA, IL										
Stockpile #2										
Lab #0961	09-10-16	0.8	22.8	13.6	62.8	96.9	0.5	76.7	594	8
Lab #1223	10-17-16	1.3	37.9	14.1	46.7	97.9	0.7	64.6	506	9
Lab #1548	12-06-16	1.2	21.7	14.4	62.7	96.8	0.3	76.8	594	5
SIEGEL GRAVEL & EXCAVATING, VERSAILLES, MO										
Stockpile #1										
Lab #0763	08-04-16	2.1	40.0	8.3	49.6	70.1	8.8	64.6	362	114
Lab #0980	09-09-16	3.9	41.0	8.9	46.2	66.9	8.1	61.8	331	100
Lab #1181	10-11-16	2.9	39.9	9.0	48.2	68.1	8.1	63.6	346	103
Lab #1363	11-09-16	3.0	39.0	8.0	50.0	71.0	9.0	65.0	370	113
Lab #1570	12-14-16	1.9	41.8	8.6	47.7	69.1	8.2	63.3	350	104

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		+8	-8+40	-40+60	-60				ENM	EMg
SIEGEL GRAVEL & EXCAVATING, VERSAILLES, MO (CONTINUED)										
Stockpile #4										
Lab #0764	08-04-16	2.8	49.0	8.0	40.2	83.7	10.5	57.3	383	120
Lab #0981	09-09-16	2.5	48.8	7.4	41.3	82.5	9.9	57.9	382	115
Lab #1182	10-11-16	2.2	47.5	9.8	40.5	84.4	10.0	58.3	393	117
Lab #1364	11-09-16	2.0	48.0	11.0	39.0	86.0	10.0	58.0	394	118
Lab #1571	12-14-16	2.8	49.1	8.8	39.3	84.0	10.0	56.9	382	114
Stockpile #5										
Lab #0762	08-04-16	2.0	43.0	6.9	48.1	77.0	9.5	63.0	388	120
Lab #0979	09-09-16	3.4	42.6	7.8	46.2	77.3	9.0	61.5	381	111
Lab #1180	10-11-16	2.9	44.0	7.2	45.9	77.2	9.1	61.2	378	111
SKYLINE MATERIALS, LLC - GILLIAM, GILLIAM, MO										
Stockpile #1										
Lab #0744	08-03-16	6.3	51.4	6.7	35.6	88.7	6.7	52.5	372	70
Lab #0973	09-07-16	7.0	49.5	6.9	36.6	89.2	6.5	53.1	379	69
Lab #1151	10-07-16	5.8	48.9	7.7	37.6	89.0	6.5	54.4	388	71
Lab #1341	11-03-16	5.4	50.7	7.4	36.5	89.1	6.2	53.6	382	66
Lab #1533	12-06-16	7.1	50.0	7.5	35.4	88.2	6.3	52.4	370	66
SKYLINE MATERIALS - NEWARK, NEWARK, MO										
Stockpile #3										
Lab #0801	08-03-16	1.5	48.3	10.4	39.8	92.4	0.6	58.1	430	7
Lab #0933	08-25-16	1.7	45.1	10.6	42.6	91.5	0.7	60.2	441	8
Lab #1080	09-20-16	1.0	41.6	10.6	46.8	91.5	0.7	63.6	465	9
SKYLINE MATERIALS-GLASGOW, GLASGOW, MO										
Stockpile #2										
Lab #0745	08-03-16	0.6	46.3	8.8	44.3	85.5	5.4	61.2	418	66
Lab #0974	09-07-16	1.2	47.5	10.6	40.7	92.2	5.3	58.9	435	62
Lab #1152	10-07-16	1.0	47.7	9.7	41.6	86.7	5.9	59.3	412	70
Lab #1342	11-03-16	0.8	44.6	12.2	42.4	90.0	4.5	60.9	438	55
Lab #1534	12-06-16	0.8	46.2	10.6	42.4	88.7	4.9	60.3	428	59
Stockpile #3										
Lab #1092	09-26-16	4.9	50.7	6.9	37.5	88.9	6.0	54.3	386	65
Lab #1109	09-28-16	4.8	51.8	6.3	37.1	89.1	6.2	53.8	384	67
Lab #1153	10-07-16	6.0	52.5	5.9	35.6	87.9	6.5	52.3	368	68
Lab #1343	11-03-16	2.6	49.3	8.1	40.0	90.4	6.1	57.2	414	70
Lab #1535	12-06-16	8.2	55.4	5.5	30.9	88.2	6.2	48.1	339	60
SOUTH CENTRAL COOP, CAINSVILLE, MO										
Stockpile #5										
Lab #1362	11-07-16	0.0	0.0	0.0	99.0	92.0	0.0	100.0	730	4
SMASAL AGGREGATE, LINCOLN, MO										
Stockpile #1										
Lab #0781	08-08-16	9.2	46.5	11.8	32.5	91.6	0.2	51.2	375	2
Lab #1053	09-20-16	0.6	42.4	15.2	41.8	87.0	0.1	61.5	428	1
Lab #1314	11-01-16	2.9	40.2	12.5	44.4	87.7	0.1	62.0	435	1
Lab #1555	12-13-16	3.9	45.3	12.2	38.6	90.2	0.4	57.2	413	5
S-S-S INC, LOUISIANA, MO										
Stockpile #1										
Lab #0832	08-09-16	5.4	45.4	10.7	38.5	94.5	0.4	56.3	425	5
Lab #0943	08-29-16	5.8	46.0	11.0	37.2	94.7	0.3	55.3	419	3
Lab #1132	09-30-16	6.6	45.7	9.9	37.8	95.6	1.0	55.2	422	11
Lab #1355	11-04-16	6.0	47.3	10.9	35.8	94.1	0.2	54.2	408	2
Lab #1602	12-06-16	5.9	48.9	11.3	33.9	94.4	0.2	52.9	400	2
STOCKMAN QUARRY, LLC, JEFFERSON CITY, MO										
Stockpile #1										
Lab #0796	08-11-16	8.0	35.8	10.2	46.0	85.1	10.2	61.1	416	125
Lab #0963	09-06-16	5.6	38.4	9.0	47.0	85.7	10.6	62.0	425	131
Lab #1159	10-06-16	5.7	39.0	9.7	45.6	84.9	10.9	61.2	415	133
Lab #1383	11-09-16	6.0	39.0	10.0	45.0	85.0	10.0	61.0	411	123
STRACK STONE - FRUITLAND, JACKSON, MO										
Stockpile #3										
Lab #0887	08-24-16	0.1	37.5	16.3	46.1	99.3	2.1	65.3	518	27
Stockpile #5										
Lab #0909	08-31-16	0.4	39.2	14.4	46.0	100.4	3.2	64.4	518	41
Lab #0910	09-01-16	0.3	39.6	14.7	45.4	100.5	3.4	64.1	516	44
Lab #0990	09-14-16	0.4	37.8	13.7	48.1	100.1	3.2	65.8	527	42
Lab #1108	09-28-16	0.1	40.5	15.0	44.4	100.1	2.5	63.5	509	32
Lab #1413	11-15-16	0.2	42.5	13.8	43.5	100.4	3.5	62.4	501	44
STRACK STONE CO. - LODI, LLC, CAPE GIRARDEAU, MO										

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		+8	-8+40	-40+60	-60				ENM	EMg
T&M STONE QUARRY LLC, FAIR PLAY, MO										
Stockpile #1										
Lab #0902	08-29-16	7.7	49.7	12.1	30.5	95.2	0.1	50.2	382	1
Lab #1055	09-22-16	7.4	50.9	12.6	29.1	95.7	0.1	49.4	378	1
TABLE ROCK ASPHALT CONST CO INC, BRANSON, MO										
Stockpile #1										
Lab #1330	11-03-16	6.4	51.1	8.1	34.4	87.0	10.4	52.0	362	108
Stockpile #2										
Lab #1331	11-03-16	9.1	43.3	6.4	41.2	88.1	10.5	55.9	394	117
Lab #1527	12-07-16	5.9	47.8	8.7	37.6	86.2	10.2	54.8	378	112
Lab #1581	12-12-16	6.1	40.3	6.9	46.7	88.0	10.4	60.9	429	127
TABLE ROCK ASPHALT CONST CO INC-KIM, BRANSON, MO										
Stockpile #1										
Lab #0860	08-22-16	0.9	39.5	14.2	45.4	87.0	0.5	63.8	444	6
Lab #1203	10-11-16	9.0	36.1	7.3	47.6	90.7	10.3	61.0	443	126
Lab #1326	11-01-16	4.0	32.5	12.2	51.3	89.6	2.5	66.7	478	33
Lab #1547	12-07-16	2.6	33.1	9.9	54.4	90.9	9.5	68.6	499	130
TAYLOR QUARRIES, LOCKWOOD, MO										
THE ANDERSONS, INC.-SEYMOUR, IN, MAUMEE, OH										
THE HITCHING POST, BOURBON, MO										
Stockpile #1										
Lab #0846	08-19-16	0.0	0.2	1.2	98.6	99.2	7.0	99.4	789	139
Lab #0995	09-12-16	0.0	0.3	1.3	98.4	99.5	6.8	99.3	790	135
Lab #1186	10-13-16	0.0	0.3	1.2	98.5	99.1	6.6	99.3	787	131
Stockpile #2										
Lab #0847	08-19-16	0.1	0.5	3.3	96.1	94.9	11.1	98.2	746	218
Lab #0996	09-12-16	0.0	0.6	4.5	94.9	95.7	11.2	97.8	748	219
Lab #1187	10-13-16	0.4	2.4	8.8	88.4	95.7	11.0	94.3	722	207
TOWER ROCK STONE CO, STE GENEVIEVE, MO										
Stockpile #1										
Lab #0913	08-31-16	0.7	40.6	15.8	42.9	95.9	0.9	62.5	480	11
Lab #1123	10-04-16	0.6	38.2	15.4	45.8	96.4	0.8	64.6	498	10
Lab #1456	11-22-16	1.2	44.6	15.1	39.1	96.5	0.8	59.3	458	9
Stockpile #2										
Lab #0914	08-31-16	1.1	37.9	14.0	47.0	96.1	3.0	64.9	499	39
Lab #1126	10-04-16	0.3	40.6	13.2	45.9	95.8	3.9	64.0	490	50
Lab #1459	11-22-16	0.5	43.6	12.8	43.1	96.7	7.2	61.7	477	89
Stockpile #3										
Lab #0915	08-31-16	0.8	39.4	19.0	40.8	97.8	0.2	62.1	485	2
Lab #1124	10-04-16	0.6	36.2	17.9	45.3	96.6	0.3	65.1	503	4
Lab #1457	11-22-16	0.7	39.2	18.1	42.0	97.0	0.3	62.7	486	4
Stockpile #5										
Lab #0916	08-31-16	6.9	56.4	9.6	27.1	94.4	1.5	47.0	355	14
Lab #1125	10-04-16	4.8	48.7	10.3	36.2	93.4	1.3	54.6	408	14
Lab #1458	11-22-16	4.7	49.4	11.8	34.1	94.2	1.6	53.5	403	17
TRAGER LIMESTONE-NETTLETON, CHILLICOTHE, MO										
Stockpile #1										
Lab #0737	08-03-16	0.5	51.4	10.0	38.1	80.9	1.2	57.0	369	14
Lab #1042	09-19-16	0.7	50.6	10.6	38.1	82.6	1.2	57.1	377	14
Lab #1170	10-07-16	1.5	59.7	9.1	29.7	83.9	0.9	50.1	336	9
Lab #1406	11-14-16	1.0	51.0	10.0	38.0	81.0	1.0	57.0	367	12
TRAGER LIMESTONE LLC-GALLATIN, CHILLOTHIE, MO										
Stockpile #1										
Lab #0755	08-09-16	0.3	52.5	12.2	35.0	80.3	1.1	55.4	356	12
Lab #1067	09-23-16	0.3	53.1	11.2	35.4	74.4	1.5	55.4	330	17
Lab #1405	11-14-16	0.0	53.0	10.0	37.0	70.0	1.0	56.0	315	16
Lab #1495	12-01-16	0.3	54.8	11.7	33.2	72.0	1.3	53.9	311	14
TRI COUNTY WATER AUTHORITY, INDEPENDENCE, MO										
Stockpile #1										
Lab #0859	08-22-16	0.0	0.3	0.2	99.5	83.0	1.5	99.7	662	30
Lab #1051	09-21-16	0.0	0.7	0.5	98.8	89.5	1.6	99.3	711	32
Lab #1262	10-24-16	0.2	1.3	2.1	96.4	87.0	1.5	98.0	682	29
Lab #1408	11-17-16	0.2	1.0	1.2	97.6	88.7	1.6	98.6	699	32
Lab #1551	12-12-16	0.2	0.7	0.8	98.3	75.4	1.4	99.0	597	28
TWIN STATES SAND & GRAVEL - REGER, MILAN, MO										
Stockpile #1										
Lab #0770	08-11-16	0.1	38.8	14.8	46.3	89.0	0.3	64.9	462	4
UNITED SUPPLIERS, ELDORA, IA										

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		+8	-8+40	-40+60	-60				ENM	EMg
WADE AG PRODUCTS-MAIN OFC, LACYGNE, KS										
Stockpile #2										
Lab #0874	08-25-16	8.7	50.3	8.8	32.2	86.8	0.9	50.1	348	9
Lab #1101	09-28-16	9.8	53.5	9.6	27.1	86.4	1.2	46.2	320	11
Lab #1300	10-26-16	9.2	48.6	9.0	33.2	84.2	1.2	50.8	342	12
Lab #1453	11-21-16	6.6	48.1	9.1	36.2	82.3	1.3	53.7	353	14
WADE AG PRODUCTS Q DREXEL, LACYGNE, KS										
WASHINGTON COUNTY AGGREGATES, INC., POTOSI, MO										
Stockpile #1										
Lab #0926	08-31-16	1.3	38.1	13.1	47.5	95.1	11.6	64.9	494	151
Lab #1004	09-15-16	0.8	44.0	13.4	41.8	98.8	12.2	60.8	481	148
Lab #1593	12-13-16	1.6	40.7	14.3	43.4	95.5	11.6	62.2	475	144
Stockpile #2										
Lab #0927	08-31-16	0.9	40.3	12.5	46.3	99.3	12.2	63.9	507	156
Lab #1005	09-15-16	0.9	44.8	12.4	41.9	97.6	12.1	60.5	473	147
Lab #1594	12-13-16	0.9	36.1	14.4	48.6	97.5	11.8	66.3	517	156
FRED WEBER INC.-AUBURN QUARRY, MARYLAND HEIGHTS, MO										
FRED WEBER INC.-BLUFF CITY MINERALS, ALTON, IL										
Stockpile #1										
Lab #0929	08-22-16	0.4	17.2	9.8	72.6	88.8	1.3	82.8	588	22
Lab #1442	11-22-16	1.0	24.0	10.8	64.2	88.6	1.7	76.7	544	26
Lab #1606	12-08-16	1.0	16.6	5.8	76.6	87.9	3.3	84.2	592	56
FRED WEBER, INC - FESTUS STONE, FESTUS, MO										
FRED WEBER, INC - FOLEY QUARRY, MARYLAND HEIGHTS, MO										
Stockpile #2										
Lab #0942	08-29-16	11.2*	53.1	7.8	27.9	95.5	2.8	45.9	0	0
Stockpile #3										
Lab #0941	08-29-16	10.3*	58.5	8.0	23.2	95.7	2.5	42.6	0	0
FRED WEBER, INC.-NEW MELLE STONE, NEW MELLE, MO										
Stockpile #2										
Lab #1542	12-06-16	3.4	8.5	10.0	78.1	94.8	2.6	86.2	654	45
Lab #1543	12-07-16	6.0	10.7	9.9	73.4	95.4	2.7	82.0	626	44
Lab #1592	12-12-16	1.4	7.8	11.2	79.6	94.9	2.7	88.3	670	48
FRED WEBER INC-NORTH QUARRY, MARYLAND HEIGHTS, MO										
Stockpile #1										
Lab #0890	08-22-16	0.9	13.1	13.8	72.2	94.2	2.0	83.8	631	34
Lab #1112	09-27-16	0.5	16.8	16.0	66.7	94.1	2.6	80.5	606	42
Lab #1312	11-02-16	1.5	14.7	15.2	68.6	93.6	1.8	81.4	609	29
Lab #1541	12-06-16	0.6	15.7	16.5	67.2	93.7	1.6	81.0	607	26
FRED WEBER, INC. - SOUTH STONE, ST. LOUIS, MO										
Stockpile #1										
Lab #0891	08-25-16	0.5	17.9	15.6	66.0	91.9	4.4	79.8	587	70
Lab #1113	09-27-16	0.9	19.0	14.9	65.2	91.5	3.2	78.9	577	50
WESTSIDE STONE CO, SPRINGFIELD, MO										
Stockpile #1										
Lab #0773	08-08-16	0.2	39.3	18.4	42.1	96.3	0.1	63.0	485	1
Lab #1141	10-05-16	0.2	41.3	17.2	41.3	96.4	0.1	61.9	478	1
Lab #1398	11-07-16	0.0	39.0	19.0	42.0	97.0	0.0	63.0	487	3
Lab #1586	12-14-16	0.4	40.7	17.8	41.1	96.4	0.2	62.0	478	2
WILKERSON BROS QUARRY, PARIS, MO										
Stockpile #3										
Lab #0829	08-16-16	0.9	48.8	12.6	37.7	90.3	1.8	57.5	415	21
Lab #0939	08-26-16	0.5	44.6	15.5	39.4	90.6	0.2	59.9	434	2
Lab #1087	09-26-16	0.8	42.5	12.7	44.0	88.7	2.7	62.2	442	34
Lab #1349	10-28-16	1.5	46.7	13.2	38.6	91.1	1.4	58.2	424	16
Lab #1470	11-30-16	0.5	44.3	14.3	40.9	91.1	1.0	60.6	441	12
WILLARD ASPHALT - #18 SLEEPER, LEBANON, MO										
Stockpile #1										
Lab #1098	09-26-16	0.0	0.3	1.6	98.1	79.8	10.0	99.1	633	198
Lab #1304	10-27-16	0.2	0.9	2.0	96.9	82.7	10.0	98.3	651	197
Lab #1447	11-21-16	0.2	1.4	1.6	96.8	84.7	10.5	98.1	665	206
WILLARD ASPHALT PAVING,- #19, LEBANON, MO										
Stockpile #1										
Lab #0896	08-23-16	0.0	0.4	1.3	98.3	88.5	10.8	99.2	702	214
Lab #1036	09-21-16	0.1	0.2	1.2	98.5	93.3	11.4	99.3	741	226
Lab #1264	10-25-16	0.1	0.4	1.2	98.3	92.7	11.2	99.1	735	222
Lab #1481	12-01-16	0.2	0.6	1.4	97.8	88.8	10.9	98.8	702	215
WILLARD QUARRY-SLEEPER, LEBANON, MO										
Stockpile #1										
Lab #0878	08-22-16	0.2	0.5	2.0	97.3	82.3	10.2	98.6	649	201

TABLE 1

AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JULY 1 THROUGH DECEMBER 31, 2016

Distributor	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
WILLARD QUARRIES- ST ROBERT, LEBANON, MO										
Stockpile #1										
Lab #0897	08-23-16	0.7	44.2	16.6	38.5	83.7	10.4	59.5	398	124
Lab #1035	09-21-16	0.6	42.6	18.6	38.2	90.0	11.0	60.0	432	132
Lab #1263	10-25-16	0.3	38.2	18.3	43.2	88.2	10.6	63.7	450	135
Lab #1482	12-01-16	0.3	39.6	18.7	41.4	90.5	11.4	62.5	453	143
WILLIAMSVILLE STONE CO, POPLAR BLUFF, MO										
Stockpile #1										
Lab #0791	08-10-16	0.4	27.9	13.2	58.5	94.5	11.5	73.4	555	169
Lab #1076	09-19-16	1.3	38.6	12.1	48.0	95.2	11.5	64.9	494	149
Lab #1277	10-27-16	0.5	26.3	15.4	57.8	93.6	11.3	73.6	551	166
Lab #1487	12-01-16	0.8	34.0	13.7	51.5	91.5	11.0	68.2	499	150

TABLE 2

AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JULY 1 THROUGH DECEMBER 31, 2016

Dealer and Producer	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
AGRI SERVICES OF LEBANON, LEBANON, MO										
CONCO QUARRIES INC Q US 160, WILLARD, MO										
Lab #0877	08-22-16	0.1	7.6	13.8	78.5	97.4	0.2	88.7	691	4
Lab #1097	09-26-16	0.1	11.6	14.2	74.1	97.7	1.1	85.5	668	19
Lab #1303	10-27-16	0.0	8.2	13.8	78.0	97.4	0.2	88.3	688	4
Lab #1448	11-21-16	0.0	8.5	13.8	77.7	97.4	0.3	88.1	687	5
BACKES & TOLKE, NEW HAVEN, MO										
BUSSEN QUARRIES, INC.-ANTIRE QUARRY, ST LOUIS, MO										
Lab #1260	10-24-16	0.2	0.9	0.7	98.2	100.8	8.9	98.8	797	176
BELLE PLANT FOODS, BELLE, MO										
BARRETT MATERIALS INC, NEW HAVEN, MO										
Lab #0967	09-06-16	3.1	18.9	8.4	69.6	90.8	11.4	79.4	577	181
Lab #1268	10-25-16	3.1	18.6	8.8	69.5	90.8	10.9	79.4	577	173
BOLIVAR FARMERS EXCHANGE, BOLIVAR, MO										
CONCO QUARRIES INC Q US 160, WILLARD, MO										
Lab #1057	09-22-16	0.1	11.4	14.3	74.2	96.6	0.3	85.6	662	5
DELTA GROWERS ASSN-EAST PRAIRIE, CHARLESTON, MO										
HEARTLAND MATERIALS LLC, JACKSON, MO										
Lab #0882	08-22-16	3.2	37.3	15.3	44.2	92.8	2.3	62.7	466	29
Lab #0991	09-15-16	0.4	35.0	15.1	49.5	97.6	2.3	67.3	526	31
SCAGGS ROCK-N-LIME, INC., PATTERSON, MO										
Lab #0883	08-22-16	3.6	21.3	20.4	54.7	100.5	12.0	72.3	581	173
DENT COUNTY FARM SUPPLY, SALEM, MO										
CAPITAL QUARRIES INC-ROLLA Q #4, JEFFERSON CITY, MO										
Lab #1037	09-21-16	1.8	20.8	8.1	69.3	91.5	11.3	79.4	581	179
Lab #1235	10-18-16	1.5	16.1	10.2	72.2	89.2	10.9	82.3	588	180
Lab #1477	11-29-16	2.0	18.5	9.5	70.0	90.2	11.0	80.3	580	177
SCAGGS ROCK-N-LIME, INC., PATTERSON, MO										
Lab #1038	09-21-16	5.3	15.4	19.9	59.4	97.6	12.1	75.2	587	182
Lab #1236	10-18-16	3.3	14.1	18.9	63.7	96.8	11.2	78.6	608	176
Lab #1478	11-29-16	4.3	14.7	23.3	57.7	95.8	11.8	75.4	578	178
DICKEY FARM SUPPLY, CENTERVILLE, MO										
LANGE STEGMANN FERTILIZER, ST LOUIS, MO										
Lab #1006	09-15-16	0.7	14.5	7.3	77.5	87.7	1.9	85.5	600	32
J. ECKSTEIN ENTERPRISES, BEAUFORT, MO										
BUSSEN QUARRIES, INC.-ANTIRE QUARRY, ST LOUIS, MO										
Lab #0994	09-12-16	0.0	0.2	1.0	98.8	99.7	6.5	99.5	793	129
Lab #1386	11-10-16	0.0	0.0	1.0	99.0	99.0	7.0	99.0	786	129
FARMER'S COOP #280, FREEBURG, MO										
CAPITAL QUARRIES INC-ROLLA Q #4, JEFFERSON CITY, MO										
Lab #1484	11-30-16	1.6	14.2	10.5	73.7	85.1	10.6	83.6	569	177
MFA INC, COLUMBIA, MO										
Lab #0823	08-16-16	0.5	20.0	11.4	68.1	89.8	1.1	79.9	574	18
Lab #0965	09-06-16	0.4	21.0	11.3	67.3	89.3	1.1	79.3	567	17
FARMER'S EXCHANGE BULK PLANT, CROCKER, MO										
CAPITAL QUARRIES INC-ROLLA Q #4, JEFFERSON CITY, MO										
Lab #1178	10-11-16	2.1	18.4	8.7	70.8	91.6	11.0	80.6	591	177
Lab #1483	12-01-16	1.6	19.9	8.3	70.2	89.9	11.2	80.2	576	180
FARMER'S EXCHANGE BULK PLANT - ROLLA, ROLLA, MO										
MFA INC, COLUMBIA, MO										
Lab #0895	08-23-16	0.2	16.6	10.1	73.1	89.4	1.0	83.3	596	17
Lab #1615	11-17-16	0.4	22.2	10.0	67.4	89.3	2.6	79.0	564	41
FARMERS PRODUCERS EXCHANGE-CONWAY, LEBANON, MO										
CONCO QUARRIES INC Q US 160, WILLARD, MO										
Lab #0880	08-24-16	0.0	7.6	13.4	79.0	96.8	0.3	88.9	689	5
Lab #1059	09-21-16	0.1	9.4	13.5	77.0	97.9	1.7	87.5	685	30
Lab #1249	10-18-16	0.1	9.6	15.1	75.2	98.1	1.0	86.7	680	17
FARMERS PRODUCE EXCHANGE, LEBANON, MO										
CONCO QUARRIES INC Q US 160, WILLARD, MO										
Lab #0876	08-22-16	0.0	8.8	13.4	77.8	96.4	0.3	88.0	679	5
Lab #1096	09-26-16	0.1	9.0	13.7	77.2	97.0	1.3	87.7	680	23
Lab #1302	10-27-16	0.1	14.5	15.8	69.6	97.5	0.8	82.7	645	13
Lab #1449	11-21-16	0.0	13.9	15.6	70.5	97.8	0.7	83.3	652	12
GFG - BETHANY, BETHANY, MO										
MK MINERALS INC., WATHENA, KS										
Lab #1419	11-15-16	0.0	0.3	0.3	99.4	87.2	0.6	99.7	695	12

TABLE 2

AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JULY 1 THROUGH DECEMBER 31, 2016

Dealer and Producer	Date Sampled	U.S. Sieve Fraction, %				%CCE	%Mg	Fineness Factor	Pounds/Ton	
		+8	-8+40	-40+60	-60				ENM	EMg
GFG AGRIPRODUCTS, LLC, TRENTON, MO										
MK MINERALS INC., WATHENA, KS										
Lab #1216	10-18-16	0.0	0.3	0.4	99.3	87.2	0.7	99.6	695	14
GIBSON LIME CO-DEXTER, DEXTER, MO										
SHAWNEE STONE - JONESBORO PLANT, ANNA, IL										
Lab #1338	11-02-16	5.2	34.0	12.7	48.1	97.7	0.6	64.2	502	8
SCAGGS ROCK-N-LIME, INC., PATTERSON, MO										
Lab #0888	08-26-16	4.2	15.9	24.9	55.0	99.9	12.1	73.9	591	179
Lab #0987	09-12-16	4.2	14.9	25.7	55.2	95.9	11.6	74.3	570	172
Lab #1336	11-02-16	9.1	16.8	23.4	50.7	97.9	11.5	68.9	540	159
HEARTLAND MATERIALS LLC, JACKSON, MO										
Lab #0889	08-26-16	0.4	35.7	15.5	48.4	97.6	2.3	66.6	520	31
Lab #0988	09-12-16	0.9	35.4	14.9	48.8	97.2	2.0	66.6	518	27
Lab #1337	11-02-16	5.7	35.3	13.2	45.8	93.1	2.0	62.5	466	25
GREEN POINT AG, CATRON, MO										
HEARTLAND MATERIALS LLC, JACKSON, MO										
Lab #0885	08-23-16	0.4	31.1	15.9	52.6	97.2	2.3	69.9	544	32
Lab #0993	09-13-16	3.0	37.9	14.4	44.7	98.1	1.7	62.8	493	21
SCAGGS ROCK-N-LIME, INC., PATTERSON, MO										
Lab #0884	08-23-16	4.1	17.1	26.3	52.5	97.9	12.1	72.6	568	176
Lab #0992	09-13-16	3.7	17.8	22.3	56.2	99.3	11.7	74.0	588	173
HELENA CHEMICAL COMPANY-HARRIS, NEWTOWN, MO										
MK MINERALS INC., WATHENA, KS										
Lab #1320	10-31-16	0.0	0.1	0.4	99.5	86.6	0.6	99.8	691	12
Lab #1576	12-13-16	0.0	0.3	0.5	99.2	84.9	0.6	99.6	676	12
JEFFCO FERTILIZER, DESOTO, MO										
LANGE STEGMANN FERTILIZER, ST LOUIS, MO										
Lab #1612	11-15-16	0.3	25.5	13.4	60.8	90.0	2.5	75.2	542	38
LOHMAN PRODUCERS EXCHANGE, LOHMAN, MO										
MFA INC, COLUMBIA, MO										
Lab #0795	08-11-16	2.2	17.3	10.5	70.0	89.7	2.1	80.6	579	34
Lab #1464	11-23-16	0.8	21.6	9.9	67.7	89.3	2.0	79.0	565	32
MFA COOP #130, RHINELAND, MO										
MFA INC, COLUMBIA, MO										
Lab #1119	10-03-16	0.4	23.0	12.1	64.5	89.9	1.6	77.5	557	25
Lab #1613	11-16-16	0.2	23.4	10.4	66.0	89.5	1.5	78.1	559	23
MFA AGRI SERVICE, KIRKSVILLE, MO										
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Lab #0816	08-15-16	0.9	20.4	9.7	69.0	89.4	2.0	79.9	572	32
MFA EXCHANGE, META, MO										
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Lab #0824	08-16-16	0.9	14.2	8.7	76.2	88.0	0.9	85.0	598	15
Lab #0964	09-06-16	0.4	18.8	9.6	71.2	88.5	0.9	81.7	578	15
Lab #1384	11-09-16	1.0	23.0	11.0	66.0	90.0	1.0	78.0	559	16
MFA AGRI SERVICE, BETHANY, MO										
KELLY LIMESTONE LLC, KIRKSVILLE, MO										
Lab #1279	10-24-16	2.2	15.8	12.0	70.0	87.3	0.5	81.2	567	8
Lab #1517	12-05-16	1.1	19.9	12.7	66.3	87.3	0.4	78.9	551	6
MFA AGRI SERVICE, BROOKFIELD, MO										
MFA INC, COLUMBIA, MO										
Lab #0771	08-11-16	1.5	21.3	12.4	64.8	89.0	0.4	77.6	552	6
Lab #1166	10-04-16	0.8	13.4	12.5	73.3	86.6	0.4	84.2	583	7
MFA AGRI SERVICE, JEFFERSON CITY, MO										
MFA INC, COLUMBIA, MO										
Lab #0900	08-26-16	0.6	19.4	9.1	70.9	89.9	0.9	81.2	584	15
Lab #1116	09-30-16	0.9	29.0	10.4	59.7	90.3	2.8	73.2	529	41
Lab #1379	11-07-16	2.0	23.0	10.0	65.0	90.0	3.0	77.0	548	43
MFA AGRI SERVICE, LANCASTER, MO										
MFA INC, COLUMBIA, MO										
Lab #0815	08-15-16	0.4	19.2	10.0	70.4	88.6	0.6	81.2	576	10
Lab #1045	09-21-16	0.3	18.7	10.3	70.7	89.2	0.6	81.6	582	10
Lab #1577	12-14-16	0.7	18.4	10.0	70.9	87.7	0.6	81.5	572	10
MFA AGRI SERVICES, LINEVILLE, IA										
MFA INC, COLUMBIA, MO										
Lab #1162	10-03-16	11.7*	17.2	10.0	61.1	88.4	0.4	71.4	0	0
Lab #1361	11-07-16	3.0	21.0	11.0	64.0	88.0	0.0	76.0	537	6
MFA AGRI SERVICE, MACON, MO										
MFA INC, COLUMBIA, MO										
Lab #1321	11-01-16	1.4	17.3	10.2	71.1	89.2	1.0	81.5	582	16
Lab #1494	11-29-16	0.5	27.4	10.2	61.9	89.1	1.0	74.9	534	15

TABLE 2

AGRICULTURAL LIMING MATERIALS SAMPLED FROM

JULY 1 THROUGH DECEMBER 31, 2016

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 #1165	10-04-16	2.3	20.3	13.2	64.2	88.3	0.4	77.2	545	6
Lab #1422	11-17-16	3.3	19.4	12.8	64.5	87.9	0.4	77.0	542	6
MFA AGRI SERVICE, OWENSVILLE, MO										
BUSSEN QUARRIES, INC.-ANTIRE QUARRY, ST LOUIS, MO										
Lab #0748	08-08-16	0.1	0.1	0.9	98.9	98.6	7.9	99.5	785	157
Lab #0968	09-06-16	0.2	0.5	1.2	98.1	99.0	6.5	98.9	784	129
Lab #1174	10-10-16	0.0	0.3	1.0	98.7	97.1	7.2	99.4	772	143
Lab #1539	12-05-16	0.0	0.1	1.2	98.7	100.4	7.5	99.4	799	149
MFA INC, COLUMBIA, MO										
Lab #0749	08-08-16	0.7	15.7	9.6	74.0	87.2	0.4	83.7	584	7
Lab #0969	09-06-16	0.9	20.3	9.6	69.2	87.7	1.2	80.0	562	19
Lab #1175	10-10-16	2.1	16.0	9.4	72.5	86.9	1.1	82.1	571	18
Lab #1540	12-05-16	1.6	18.0	10.4	70.0	87.4	0.8	80.7	565	13
MFA AGRI SERVICE, ST CLAIR, MO										
MFA INC, COLUMBIA, MO										
Lab #0998	09-12-16	0.0	0.4	0.2	99.4	93.1	0.2	99.6	742	4
BUSSEN QUARRIES, INC.-ANTIRE QUARRY, ST LOUIS, MO										
Lab #0999	09-12-16	0.1	0.6	0.4	98.9	101.6	9.6	99.3	807	191
Lab #1190	10-13-16	0.1	0.9	0.9	98.1	100.0	8.6	98.9	791	170
MFA AGRI SERVICE, TRENTON, MO										
MFA INC, COLUMBIA, MO										
Lab #1095	09-30-16	4.6	16.3	10.0	69.1	88.0	0.4	79.2	557	6
Lab #1465	11-23-16	6.6	16.4	12.0	65.0	89.5	0.4	76.3	546	6
MFA EXCHANGE, SALEM, MO										
CAPITAL QUARRIES INC-ROLLA Q #4, JEFFERSON CITY, MO										
Lab #1039	09-21-16	1.7	21.2	8.2	68.9	91.8	11.4	79.1	581	180
Lab #1233	10-18-16	2.3	22.3	8.0	67.4	91.2	11.0	77.8	567	171
LEO O'LAUGHLIN, MACON, MO										
CENTRAL STONE COMPANY - HUNTINGTON, HANNIBAL, MO										
Lab #0758	08-10-16	1.1	34.9	13.0	51.0	90.1	0.2	67.5	487	3
Lab #1025	09-13-16	1.2	26.2	12.6	60.0	80.4	0.2	74.1	477	3
Lab #1194	10-14-16	1.2	35.8	14.4	48.6	77.8	0.1	66.2	412	1
Lab #1322	11-01-16	1.9	36.5	13.4	48.2	84.8	0.2	65.4	443	3
Lab #1493	11-29-16	2.1	32.4	12.3	53.2	85.7	0.3	68.7	471	4
LEO O'LAUGHLIN INC, MARCELINE, MO										
CENTRAL STONE COMPANY - HUNTINGTON, HANNIBAL, MO										
Lab #0759	08-10-16	0.8	34.2	14.7	50.3	90.1	0.4	67.7	488	5
Lab #1024	09-13-16	1.4	37.2	14.2	47.2	92.8	0.4	65.0	483	5
Lab #1195	10-14-16	1.1	36.5	13.3	49.1	92.2	0.4	66.2	488	5
Lab #1403	11-11-16	1.0	34.0	15.0	50.0	90.0	0.0	67.0	483	5
RICHLAND PLANT FOODS, RICHLAND, MO										
WILLARD QUARRIES-ST ROBERT, LEBANON, MO										
Lab #1177	10-11-16	0.6	5.8	5.0	88.6	84.3	8.5	93.1	628	158
WILLARD ASPHALT PAVING,- #19, LEBANON, MO										
Lab #1480	12-01-16	0.0	0.3	1.0	98.7	83.7	10.5	99.4	665	209
SCHAEPERKOETTER STORE, MT STERLING, MO										
BUSSEN QUARRIES, INC.-ANTIRE QUARRY, ST LOUIS, MO										
Lab #1157	10-05-16	0.2	0.5	0.7	98.6	100.6	8.3	99.1	798	165
Lab #1385	11-10-16	0.0	0.0	1.0	99.0	99.0	8.0	99.0	790	149
SKYLINE MATERIALS, LA PLATA, MO										
SKYLINE MATERIALS - NEWARK, NEWARK, MO										
Lab #0757	08-10-16	1.2	44.4	11.3	43.1	91.3	0.8	61.0	445	10
Lab #1044	09-20-16	1.5	44.8	11.2	42.5	91.3	0.8	60.4	441	10
STRAATMANN FEED, LABADIE, MO										
LANGE STEGMANN FERTILIZER, ST LOUIS, MO										
Lab #1003	09-12-16	0.8	14.9	10.2	74.1	89.1	1.3	83.9	598	22
Lab #1231	10-17-16	1.7	14.1	9.2	75.0	89.2	1.7	84.0	600	29
Lab #1590	12-12-16	1.9	15.8	10.0	72.3	88.9	2.1	82.3	585	35
BUSSEN QUARRIES, INC.-ANTIRE QUARRY, ST LOUIS, MO										
Lab #1232	10-17-16	0.2	0.8	1.3	97.7	99.7	7.6	98.7	787	150
Lab #1591	12-12-16	1.6	17.0	5.8	75.6	97.5	5.6	83.3	650	93
STOCKMAN FEED & FERTILIZER, JEFFERSON CITY, MO										
GAVILON FERTILIZER, LLC, SAUGET, IL										
Lab #1160	10-06-16	0.5	20.8	10.2	68.5	90.3	0.9	79.8	577	14
Lab #1380	11-07-16	1.0	19.0	9.0	72.0	90.0	1.0	82.0	591	13

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)

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

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)

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

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

In 1976 when the Missouri Agricultural Liming Materials Law and Rules was implemented, representatives from the ag lime producing community recommended and agreed that agricultural limestone would be defined as “finely ground or crushed limestone either calcitic or dolomitic, which shall have a minimum specification of ninety percent of the materials passing through a United States standard number eight sieve;” found in RSMO Section 266.505 Definitions (1) and “All dry agricultural liming materials offered for sale shall have a minimum calcium carbonate equivalent of sixty-five percent (65%), and shall meet the minimum specifications of 6 CSR 250-10.020(2).”, found in 6CSR 250-10.020 Agricultural Liming Materials Standards. These specifications were agreed to because they support and predict how an agricultural liming materials application will perform when applied to neutralize soil acidity.

Several years ago, Dr. Jim Brown supplied an article for inclusion in this report at the time describing a block of ag lime. The block was 1 cubic foot and as such it affected only 1 square foot of soil when applied to the field. However, that same cubic foot if ground properly affects a much larger area and actually will neutralize soil acidity.

This is important because if the ag lime does not perform as expected nutrient applications also act inefficiently, which could cause nutrient loss from agricultural fields.

**College of Agriculture, Food and Natural Resources
Fertilizer/Ag Lime Program
FY16 Income & Disbursements¹**

	Ag Lime Fees	Fertilizer Fees	Other	Combined
CARRYFORWARD (07/01/15)				
Contingency			180,220.42	180,220.42
Income Transferred in FY16 for FY15			0.00	0.00
FY15 Reconciliation			0.00	0.00
Other			<u>32,625.71</u>	<u>32,625.71</u>
Total Carryforward Available			<u>212,846.13</u>	<u>212,846.13</u>
REVENUE				
Tonnage Fees	89,412.42	1,139,753.96	0.00	1,229,354.20
Audits	337.98	12,255.58		12,593.56
Permit Fees	20,300.00	151,100.00		171,400.00
Deficiency Payments	0.00	13,229.36		13,229.36
Late Payment Fees	1,449.24	8,610.11		10,059.35
Total Revenue Available	<u>111,499.64</u>	<u>1,325,136.83</u>	0.00	<u>1,436,636.47</u>
Total Funds Available	<u>111,499.64</u>	<u>1,325,136.83</u>	<u>212,846.13</u>	<u>1,649,482.60</u>
DISBURSEMENTS				
AES Chemical Laboratory				
Analytical Services				387,850.28
Experiment Stations Chem Lab Support ²				72,997.57
Special Equipment Reserve ³				35,000.00
Inspection Services				598,095.43
Annual Research Report				5,937.94
Research Proposals Funded				
Continuing Proposals				
FY14 (no awards)				0.00
FY15				<u>167,960.00</u>
Total Continuing Proposals				0.00
New Proposals				
FY2016				115,036.00
Total Disbursements				<u>1,382,877.22</u>
Continuing Research Proposals Funded (Conditional upon submission of satisfactory progress reports)				
FY16 Reconciliation				33,727.37
Total Disbursements				<u>1,416,604.59</u>
CONTINGENCY/FUNDS AVAILABLE				
Contingency Funds Held in Reserve				68,000.00
Contingency Funds Held to fund Continuing Research Proposals ⁴				<u>164,878.00</u>
Total Contingency				<u>232,878.00</u>
Total Disbursements/Contingency				<u>1,649,482.60</u>

Footnotes:

¹ Fertilizer/Ag Lime Program Disbursements prepared by Ag Business Services (ABS)

² S&W support to Experiment Station Chem Lab administrative personnel

³ Per June 30, 1998 Fertilizer/Ag Lime Committee meeting minutes, a \$50,000 (later changed to \$35,000)

equipment reserve has been made available to T. Mawhinney for equipment upgrades in Analytical Services.

⁴ Held in reserve to fund second and third year of multi-year research proposals.

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

Address Service Requested

REPORT CONTENTS

	Page
1. Report information and tonnage summary	2
2. Table 1-Registered Producers and samples	3
3. Table 2-Distributors and samples	21
4. ENM & EMg Calculations	24
5. Ag Lime Specifications	25
6. FY16 Ag Lime/Fertilizer Disbursements	26

This report also available on the web at:

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