

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-2**

Sample Date: 7/16/26

Concrete Grade: **DM-4500HP**

Contractor: _____

Dates Test Represents: 7/17/2026 through 7/24/2026

1" Slump

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1430	9.13	2.51	48.1
26A	71-47	Presque Isle	320	2.04	2.51	10.8
2NS	63-115	Ray Rd	1220	7.32	2.67	41.1
Total Wt			2970	18.50		100.0

<----- Verify this number is 100%

Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	98.4	100.0	100.0	99.2	0.8	0.8
3/4"	81.6	100.0	100.0	91.1	8.1	8.9
1/2"	43.5	96.6	100.0	72.4	18.7	27.6
3/8"	23.3	82.0	100.0	61.1	11.3	38.9
#4	3.2	16.6	96.4	42.9	18.2	57.1
#8	2.0	4.9	83.5	35.8	7.1	64.2
#16	1.8	2.7	64.0	27.4	8.3	72.6
#30	1.7	2.1	47.7	20.6	6.8	79.4
#50	1.6	2.0	24.9	11.2	9.4	88.8
#100	1.5	1.8	6.5	3.6	7.6	96.4
LBW	1.3	1.6	0.9	1.2	2.4	98.8



Superior Materials, LLC

30701 W. 10 Mile Rd.

Suite 500

Farmington Hills, MI 48336

*Maximum % Retained must be above the 3/8" sieve.

*Any two adjacent sieves must equal 10% except max.,

nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max.,

nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for the 3/4" sieve when

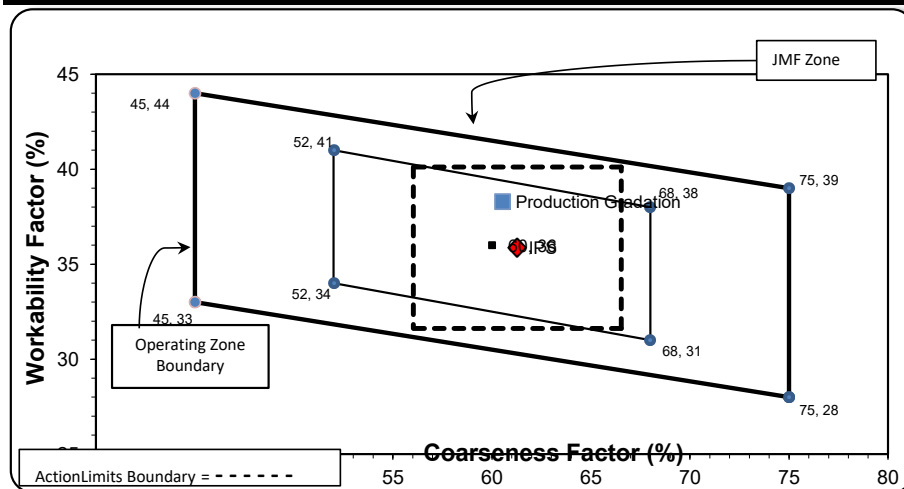
a 1.5" max. size (nom. Max. 1.0") aggregate is used.

Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	61	Workability Factor:	36	38.3
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Coarseness Factor:		61	
Workability Factor:		36	
Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.3	0.7	0.7
3/4"	89.2	10.1	10.8
1/2"	70.7	18.5	29.3
3/8"	60.7	10.0	39.3
#4	44.4	16.3	55.6
#8	35.9	8.5	64.1
#16	27.3	8.6	72.7
#30	19.1	8.2	80.9
#50	7.4	11.7	92.6
#100	1.9	5.6	98.1
LBW	0.7	1.2	99.3



PREPARED BY:
SM, LLC Technical Service

Approved By:
Nancy Donahue

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-2**

Sample Date: 7/16/26

Concrete Grade: **DM-4500HP**

Contractor: _____

Dates Test Represents: 7/17/2026 through 7/24/2026

5" Slump

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1380	8.81	2.51	47.9
26A	71-47	Presque Isle	300	1.92	2.51	10.4
2NS	63-115	Ray Rd	1200	7.20	2.67	41.7
Total Wt			2880	17.93		100.0

<----- Verify this number is 100%

Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	98.4	100.0	100.0	99.2	0.8	0.8
3/4"	81.6	100.0	100.0	91.2	8.1	8.8
1/2"	43.5	96.6	100.0	72.6	18.6	27.4
3/8"	23.3	82.0	100.0	61.4	11.2	38.6
#4	3.2	16.6	96.4	43.4	17.9	56.6
#8	2.0	4.9	83.5	36.3	7.2	63.7
#16	1.8	2.7	64.0	27.8	8.5	72.2
#30	1.7	2.1	47.7	20.9	6.9	79.1
#50	1.6	2.0	24.9	11.4	9.6	88.7
#100	1.5	1.8	6.5	3.6	7.7	96.4
LBW	1.3	1.6	0.9	1.2	2.5	98.8



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*Maximum % Retained must be above the 3/8" sieve.

*Any two adjacent sieves must equal 10% except max.,

nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max.,

nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for the 3/4" sieve when

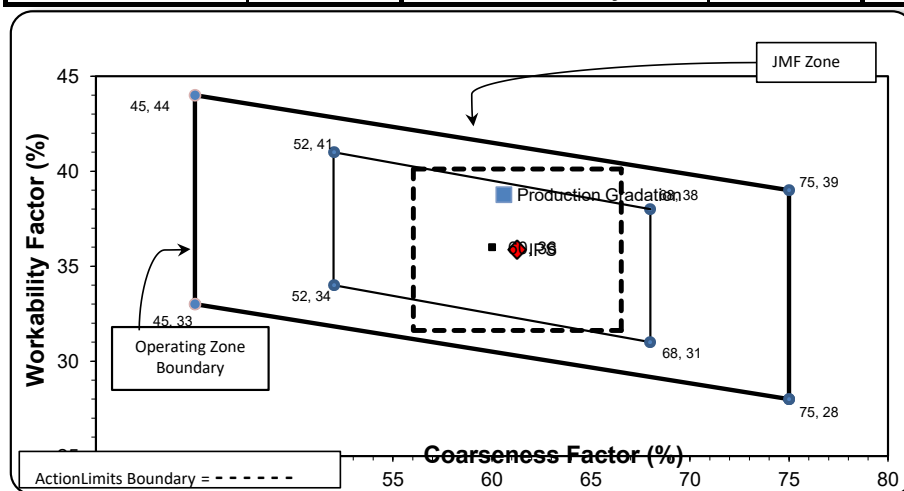
a 1.5" max. size (nom. Max. 1.0") aggregate is used.

Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	61	Workability Factor:	36	38.8
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Coarseness Factor:		61	
Workability Factor:		36	
Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.3	0.7	0.7
3/4"	89.2	10.1	10.8
1/2"	70.7	18.5	29.3
3/8"	60.7	10.0	39.3
#4	44.4	16.3	55.6
#8	35.9	8.5	64.1
#16	27.3	8.6	72.7
#30	19.1	8.2	80.9
#50	7.4	11.7	92.6
#100	1.9	5.6	98.1
LBW	0.7	1.2	99.3



PREPARED BY:
SM, LLC Technical Service

Approved By:
Nancy Donahue

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-20**

Sample Date: 7/16/26

Concrete Grade: **DM-4500HP**

Contractor: _____

Dates Test Represents: 7/17/2026 through 7/24/2026

5" Slump

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1260	8.04	2.51	43.2
26A	71-47	Presque Isle	460	2.94	2.51	15.8
2NS	63-092	Grange Hall	1200	7.20	2.67	41.1
Total Wt			2920	18.18		100.0

<----- Verify this number is 100%

Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	97.7	100.0	100.0	99.0	1.0	1.0
3/4"	80.6	100.0	100.0	91.6	7.4	8.4
1/2"	36.9	98.3	100.0	72.5	19.1	27.5
3/8"	17.1	85.2	100.0	61.9	10.6	38.1
#4	2.7	19.4	96.5	43.9	18.0	56.1
#8	1.9	5.4	81.5	35.2	8.7	64.8
#16	1.7	3.0	65.1	28.0	7.2	72.0
#30	1.6	2.4	47.7	20.7	7.3	79.3
#50	1.6	2.2	23.9	10.9	9.8	89.1
#100	1.5	2.1	5.8	3.4	7.5	96.6
LBW	1.2	1.9	0.8	1.1	2.2	98.9



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*Maximum % Retained must be above the 3/8" sieve.

*Any two adjacent sieves must equal 10% except max.,

nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max.,

nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.

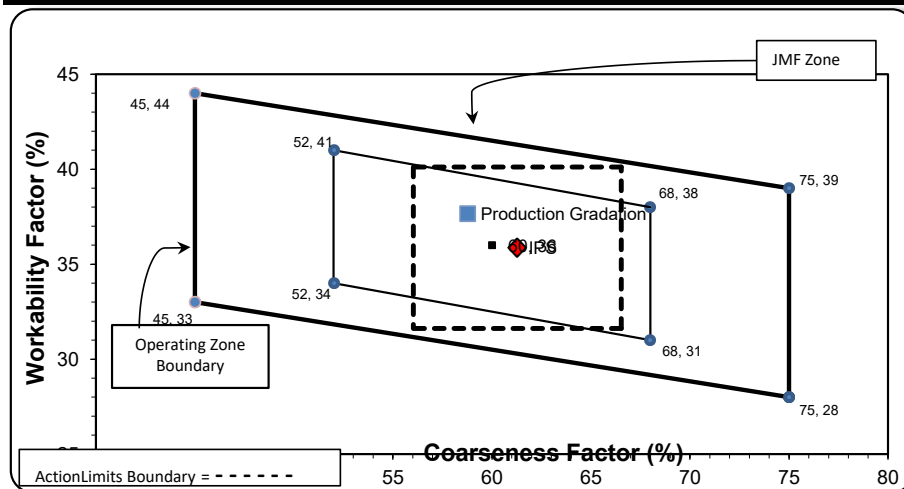
Production Gradation ☒ Batch Plant Gradations ☐ Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	59	Workability Factor:	35	37.7
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Coarseness Factor:	61
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Workability Factor:	36
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Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.3	0.7	0.7
3/4"	89.2	10.1	10.8
1/2"	70.7	18.5	29.3
3/8"	60.7	10.0	39.3
#4	44.4	16.3	55.6
#8	35.9	8.5	64.1
#16	27.3	8.6	72.7
#30	19.1	8.2	80.9
#50	7.4	11.7	92.6
#100	1.9	5.6	98.1
LBW	0.7	1.2	99.3

PREPARED BY:
SM, LLC Technical Service

Approved By:
Nancy Donahue



Daily Summary Report

Date Thursday, July 16, 2026

Sample Id	-1989634984	-674930551	-1989634985
Plant	S20 Superior Flint	S20 Superior Flint	S20 Superior Flint
Product	1022 2NS GR	1054 6AA LS PI	1067 26A Mod LS
Specification	2NS GR Spec	6AA LS	26A Mod LS Spec
Sample Type	QA	QA	QA
Time	08:30	08:30	08:30

2" (50mm)		100.0	100.0
1 1/2" (37.5mm)		100.0	100.0
1" (25mm)		97.7	100.0
3/4" (19mm)		80.6	100.0
1/2" (12.5mm)		36.9	98.3
3/8" (9.5mm)	100.0	17.1	85.2
#4 (4.75mm)	96.5	2.7	19.4
#8 (2.36mm)	81.5	1.9	5.4
#16 (1.18mm)	65.1	1.7	3.0
#30 (.6mm)	47.7	1.6	2.4
#50 (.3mm)	23.9	1.6	2.2
#100 (.15mm)	5.8	1.5	2.1
#200 (75µm)	1.0	1.38	2.0
Pan	0.0	0.00	0.0
FM	2.80		
Wash Loss (#200/75um)	0.8	1.2	1.9
Total Moisture	3.86	3.13	2.83



Daily Summary Report

Comments

Query Selections
Date Created 07/16/2026
Date Range 07/17/2026 - 07/24/2026
Plant Superior Flint
Sample Type QA

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-102**

Sample Date: 7/16/26

Concrete Grade: **DM-4500HP**

Contractor: _____

Dates Test Represents: 7/17/2026 through 7/24/2026

1" Slump

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	Stone Co	1305	7.77	2.69	42.7
Intermediate	58-003	Stone Co	600	3.57	2.69	19.6
2NS	63-115	Ray Rd	1150	6.93	2.66	37.6
Total Wt			3055	18.28		100.0

<----- Verify this number is 100%

Sieve	6AA	Intermediate	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	99.3	100.0	100.0	99.7	0.3	0.3
3/4"	76.1	100.0	100.0	89.8	9.9	10.2
1/2"	33.1	86.9	100.0	68.8	20.9	31.2
3/8"	16.7	66.6	100.0	57.9	11.0	42.1
#4	3.3	12.9	98.4	41.0	16.9	59.0
#8	2.3	2.7	83.6	33.0	8.0	67.0
#16	1.8	2.0	67.8	26.7	6.3	73.3
#30	1.5	1.7	48.5	19.2	7.5	80.8
#50	1.5	1.6	22.5	9.4	9.8	90.6
#100	1.3	1.5	4.4	2.5	6.9	97.5
LBW	1.2	1.4	0.7	1.1	1.5	98.9



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*Maximum % Retained must be above the 3/8" sieve.

*Any two adjacent sieves must equal 10% except max.,

nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max.,

nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.

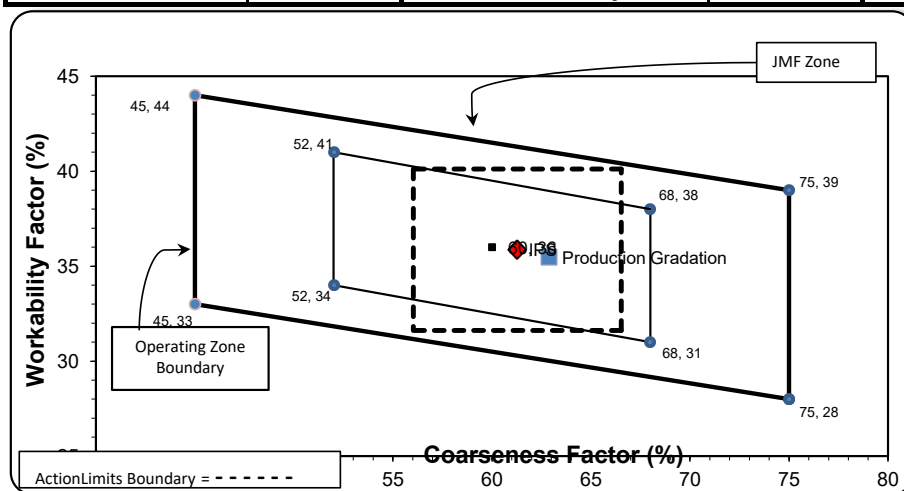
Production Gradation ☒ Batch Plant Gradations ☐ Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	63	Workability Factor:	33	35.5
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Coarseness Factor:	61
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Workability Factor:	36
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Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.3	0.7	0.7
3/4"	89.2	10.1	10.8
1/2"	70.7	18.5	29.3
3/8"	60.7	10.0	39.3
#4	44.4	16.3	55.6
#8	35.9	8.5	64.1
#16	27.3	8.6	72.7
#30	19.1	8.2	80.9
#50	7.4	11.7	92.6
#100	1.9	5.6	98.1
LBW	0.7	1.2	99.3

PREPARED BY:
SM, LLC Technical Service

Approved By:
Nancy Donahue

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-102**

Sample Date: 7/16/26

Concrete Grade: **DM-4500HP**

Contractor: _____

Dates Test Represents: 7/17/2026 through 7/24/2026

5" Slump

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	Stone Co	1220	7.27	2.69	41.2
Intermediate	58-003	Stone Co	560	3.34	2.69	18.9
2NS	63-115	Ray Rd	1180	7.11	2.66	39.9
Total Wt			2960	17.71		100.0

<----- Verify this number is 100%



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Sieve	6AA	Intermediate	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	99.3	100.0	100.0	99.7	0.3	0.3
3/4"	76.1	100.0	100.0	90.1	9.6	9.9
1/2"	33.1	86.9	100.0	69.9	20.2	30.1
3/8"	16.7	66.6	100.0	59.3	10.6	40.7
#4	3.3	12.9	98.4	43.0	16.3	57.0
#8	2.3	2.7	83.6	34.8	8.2	65.2
#16	1.8	2.0	67.8	28.1	6.6	71.9
#30	1.5	1.7	48.5	20.3	7.9	79.7
#50	1.5	1.6	22.5	9.9	10.4	90.1
#100	1.3	1.5	4.4	2.6	7.3	97.4
LBW	1.2	1.4	0.7	1.0	1.5	99.0

*Maximum % Retained must be above the 3/8" sieve.

*Any two adjacent sieves must equal 10% except max.,

nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max.,

nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.

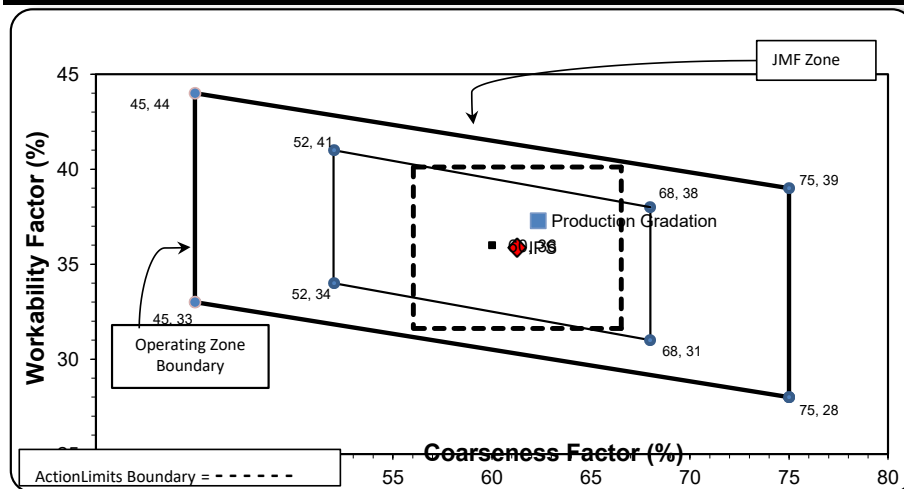
Production Gradation ☒ Batch Plant Gradations ☐ Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	62	Workability Factor:	35	37.3
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Coarseness Factor:	61
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Workability Factor:	36
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Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.3	0.7	0.7
3/4"	89.2	10.1	10.8
1/2"	70.7	18.5	29.3
3/8"	60.7	10.0	39.3
#4	44.4	16.3	55.6
#8	35.9	8.5	64.1
#16	27.3	8.6	72.7
#30	19.1	8.2	80.9
#50	7.4	11.7	92.6
#100	1.9	5.6	98.1
LBW	0.7	1.2	99.3

PREPARED BY:
SM, LLC Technical Service

Approved By:
Nancy Donahue



Daily Summary Report

Date Thursday, July 16, 2026

Sample Id	-1989635001	1989621671	-1989635007
Plant	S102 Superior Novi	S102 Superior Novi	S102 Superior Novi
Product	1022 2NS GR	1051 6AA LS	7920 INTERMED AGG P1M LS
Specification	2NS GR Spec	6AA LS	Intermed Agg P1M LS Target
Sample Type	QA	QA	QA
Time	16:00	16:00	16:00
2" (50mm)		100.0	100.0
1 1/2" (37.5mm)		100.0	100.0
1" (25mm)		99.3	100.0
3/4" (19mm)		76.1	100.0
1/2" (12.5mm)		33.1	86.9
3/8" (9.5mm)	100.0	16.7	66.6
#4 (4.75mm)	98.4	3.3	12.9
#8 (2.36mm)	83.6	2.3	2.7
#16 (1.18mm)	67.8	1.8	2.0
#30 (.6mm)	48.5	1.5	1.7
#50 (.3mm)	22.5	1.5	1.6
#100 (.15mm)	4.4	1.3	1.5
#200 (75µm)	0.9	1.27	1.4
Pan	0.0	0.00	0.0
FM	2.75		
Wash Loss (#200/75um)	0.7	1.2	1.4
Total Moisture	3.45	2.67	3.28



Daily Summary Report

Comments

Query Selections
Date Created 07/16/2026
Date Range 07/17/2026 - 07/24/2026
Plant Superior Novi
Sample Type QA