

Aggregate Optimization Chart

Production Gradation Report

PLANT #: P-20

Sample Date: 5/10/21

Dates Test Represents: 5/11/2021 through 5/17/2021

Concrete Grade: DM

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	Contribution %
6AA	71-47	Presque Isle	1605	9.82	2.62	55.2
26A	71-47	Presque Isle	200	1.22	2.62	6.9
2NS	63-92	Grange Hall	1100	6.65	2.65	37.9
Total Wt			2905	17.69		100.0

Verify this number is 100%

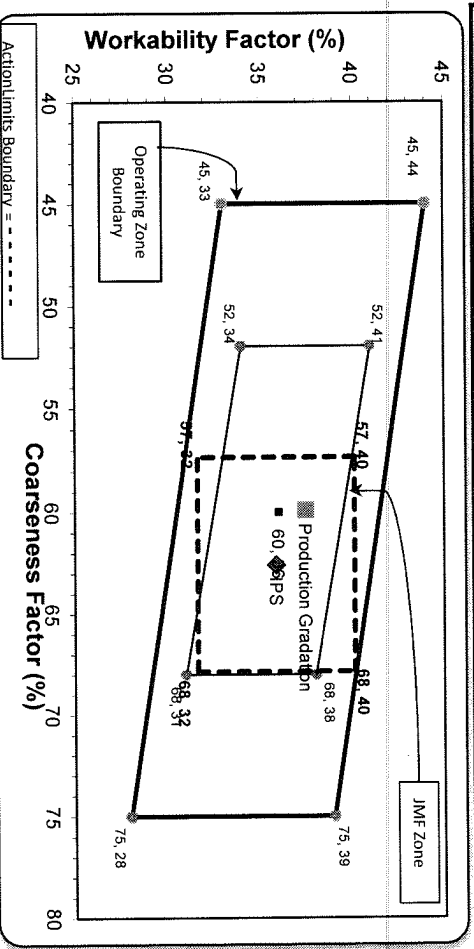
Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	98.9	100.0	100.0	99.4	0.6	0.6
3/4"	85.2	100.0	100.0	91.8	7.6	8.2
1/2"	50.1	97.7	100.0	72.3	19.6	27.7
3/8"	30.5	91.9	100.0	61.0	11.2	39.0
#4	5.9	26.4	97.9	42.1	18.9	57.9
#8	2.8	7.4	86.9	35.0	7.2	65.0
#16	2.4	4.0	71.4	28.6	6.3	71.4
#30	2.3	3.3	53.4	21.7	6.9	78.3
#50	2.2	3.0	24.9	10.9	10.9	89.1
#100	2.1	2.7	4.4	3.0	7.8	97.0
LBW	1.8	2.3	0.5	1.3	1.7	98.7

*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 8% for the 1" sieve when
 a 2" max. size (nom. Max. 1.5") aggregate is used.

Production Gradation	Batch Plant Gradations	Aggregate Supplier Gradations	Adjusted WF
Coarseness Factor: 60	Workability Factor: 35		37.5

Initial Production Sample (IPS)

Sieve	% Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	100.0	0.0	0.0
3/4"	89.2	10.8	10.8
1/2"	68.4	20.8	31.6
3/8"	59.9	8.6	40.1
#4	43.0	16.9	57.0
#8	35.9	7.1	64.1
#16	29.0	6.8	71.0
#30	21.3	7.7	78.7
#50	9.9	11.4	90.1
#100	2.4	7.5	97.6
LBW	1.2	1.2	98.8



PREPARED BY:
SM, LLC Technical Service

Approved By: _____



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Plant S20-Superior Flint
 Product 1022-2NS GR
 Period: 05/09/2021 - 05/15/2021

Name/Title Doug Storey / QC Technician
 Report Date 05/14/2021

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	97.9	%	95-100
	#8 (2.36mm)	86.9	%	65-95
	#16 (1.18mm)	71.4	%	35-75
	#30 (.6mm)	53.4	%	20-55
	#50 (.3mm)	24.9	%	10-30
	#100 (.15mm)	4.4	%	0-10
	#200 (75µm)	0.7	%	
	FM	2.61		2.6-3
	Wash Loss (#200/75um)	0.5	%	0-3
	Total Moisture	2.47	%	



Plant S20-Superior Flint
 Product 1067-26A Mod LS
 Period: 05/09/2021 - 05/15/2021

Name/Title Doug Storey / QC Technician
 Report Date 05/14/2021

Procedure	Sieve/Test	Result	Unit	26A Mod LS Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	
	1" (25mm)	100.0	%	
	3/4" (19mm)	100.0	%	100-100
	1/2" (12.5mm)	97.7	%	95-100
	3/8" (9.5mm)	91.9	%	60-95
	#4 (4.75mm)	26.4	%	5-30
	#8 (2.36mm)	7.4	%	0-12
	#16 (1.18mm)	4.0	%	
	#30 (.6mm)	3.3	%	
	#50 (.3mm)	3.0	%	
	#100 (.15mm)	2.7	%	
	#200 (75µm)	2.4	%	
	Wash Loss (#200/75um)	2.3	%	0-3
	Total Moisture	1.82	%	



Plant S20-Superior Flint
Product 1054-6AA LS PI
Period: 05/09/2021 - 05/15/2021

Name/Title Doug Storey / QC Technician
Report Date 05/14/2021

Procedure	Sieve/Test	Result	Unit	6AA LS
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	98.9	%	95-100
	3/4" (19mm)	85.2	%	
	1/2" (12.5mm)	50.1	%	30-60
	3/8" (9.5mm)	30.5	%	
	#4 (4.75mm)	5.9	%	0-8
	#8 (2.36mm)	2.8	%	
	#16 (1.18mm)	2.4	%	
	#30 (.6mm)	2.3	%	
	#50 (.3mm)	2.2	%	
	#100 (.15mm)	2.1	%	
	#200 (75µm)	1.89	%	
	Wash Loss (#200/75um)	1.8	%	0-2
	Total Moisture	1.73	%	