

Aggregate Optimization Chart

PLANT #: P-32

Sample Date: 3/6/23

Dates Test Represents: 3/7/2023 through 3/13/2023

Concrete Grade: DM, 4500HP

Contractor: _____

MDOT No.: _____

Aggr. Class	Pit #	Source	Weight (ssn)	ft ³	Specific Gravity	Contribution %
6AA	71-47	Presque Isle	1405	8.59	2.62	48.4
26A	71-47	Presque Isle	350	2.14	2.62	12.0
2NS	95-013	Smelter Bay	1150	6.95	2.65	39.6
Total Wt						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"	98.7	100.0	100.0	99.4	0.6	0.6
3/4"	77.4	100.0	100.0	89.1	10.3	10.9
1/2"	36.3	96.3	100.0	68.7	20.3	31.3
3/8"	21.7	82.3	100.0	60.0	8.7	40.0
#4	4.9	17.7	96.9	42.9	17.1	57.1
#8	2.4	4.5	83.9	34.9	7.9	65.1
#16	2.0	2.4	68.1	28.2	6.7	71.8
#30	1.9	2.0	48.8	20.5	7.7	79.5
#50	1.8	1.8	23.4	10.4	10.1	89.6
#100	1.7	1.7	6.7	3.7	6.7	96.3
LBW	1.4	1.5	1.3	1.4	2.3	98.6

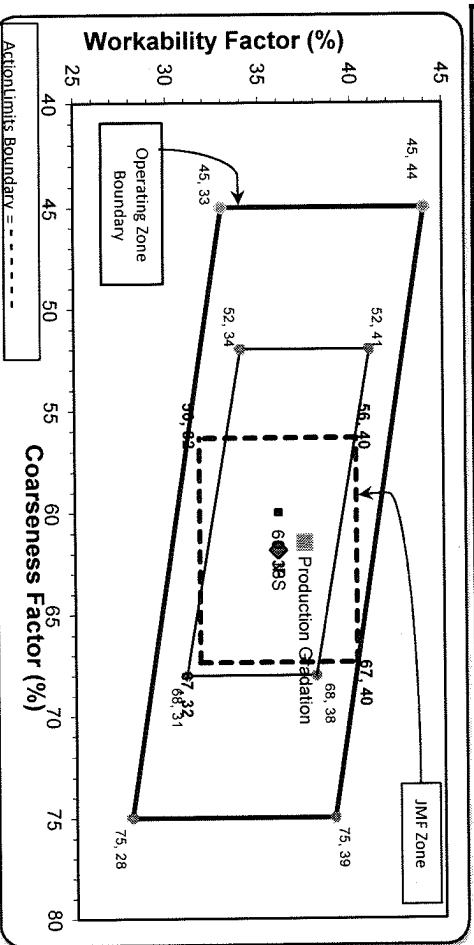
*Maximum % Retained must be above the 3/8" sieve.
 *Any two adjacent sieves must equal 10% except max.
 nom. max. #100 and #200 sieves.
 *% Retained must be at least 4% for each sieve except max.
 nom. max. #100 and #200 sieves.
 *% Retained must be at least 8% for the 1" sieve when
 a 2" max. size (nom. Max. 1.5") aggregate is used.

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

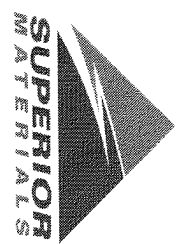
Coarseness Factor: 61 **Workability Factor:** 35 **Adjusted W/F:** 37.4

Initial Production Sample (IPS)

Coarseness Factor: 62 **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"	100.0	0.0	0.0
3/4"	95.0	5.0	5.0
1/2"	72.3	22.8	27.7
3/8"	60.4	11.8	39.6
#4	42.6	17.8	57.4
#8	36.0	6.6	64.0
#16	29.5	6.5	70.5
#30	20.3	9.2	79.7
#50	9.5	10.8	90.5
#100	3.4	6.1	96.6
LBW	1.3	2.1	98.7



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Plant 958-JMT

Product 1054-6AA LS PI

Period: 03/05/2023 - 03/11/2023

Name/Title Doug Storey / QC Technician

Report Date 03/10/2023

Procedure	Sieve/Test	Result	Unit	6AA LS PI Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	98.7	%	95-100
	3/4" (19mm)	77.4	%	
	1/2" (12.5mm)	36.3	%	30-60
	3/8" (9.5mm)	21.7	%	
	#4 (4.75mm)	4.9	%	0-8
	#8 (2.36mm)	2.4	%	
	#16 (1.18mm)	2.0	%	
	#30 (.6mm)	1.9	%	
	#50 (.3mm)	1.8	%	
	#100 (.15mm)	1.7	%	
	#200 (75µm)	1.5	%	
	Wash Loss (#200/75µm)	1.4	%	0-2
	Total Moisture	4.7	%	

Plant 958-JMT

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 03/05/2023 - 03/11/2023

Report Date 03/10/2023

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)	96.3	%	95-100
	3/8" (9.5mm)	82.3	%	60-95
	#4 (4.75mm)	17.7	%	5-30
	#8 (2.36mm)	4.5	%	0-12
	#16 (1.18mm)	2.4	%	
	#30 (.6mm)	2.0	%	
	#50 (.3mm)	1.8	%	
	#100 (.15mm)	1.7	%	
	#200 (75µm)	1.6	%	
	Wash Loss (#200/75um)	1.5	%	0-3
	Total Moisture	5.6	%	

Plant 958-JMT

Product 1022-2NS GR - Smelter Bay

Name/Title Doug Storey / QC Technician

Period: 03/05/2023 - 03/11/2023

Report Date 03/10/2023

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	96.9	%	95-100
	#8 (2.36mm)	83.9	%	65-95
	#16 (1.18mm)	68.1	%	35-75
	#30 (.6mm)	48.8	%	20-55
	#50 (.3mm)	23.4	%	10-30
	#100 (.15mm)	6.7	%	0-10
	#200 (75µm)	1.7	%	
	FM	2.72		2.6-3
	Wash Loss (#200/75um)	1.3	%	0-3
	Total Moisture	7.9	%	