

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-32**

Sample Date: **2/6/23**

Dates Test Represents: **2/7/2023** through **2/13/2023**

Concrete Grade: **DM, 4500HP**

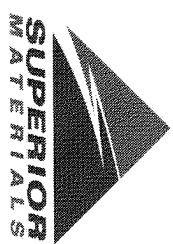
Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (ssd)	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	Smeller Bay	1150	6.95	2.65	39.6
			Total Wt	2905	17.69	100.0

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"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	77.3	100.0	100.0	89.0	11.0	11.0
1/2"	38.6	98.6	100.0	70.1	18.9	29.9
3/8"	20.6	89.4	100.0	60.3	9.8	39.7
#4	3.1	20.9	95.6	41.9	18.5	58.1
#8	1.8	5.8	83.0	34.4	7.4	65.6
#16	1.7	3.0	68.2	28.2	6.2	71.8
#30	1.7	2.5	50.0	20.9	7.3	79.1
#50	1.6	2.4	24.5	10.8	10.2	89.2
#100	1.5	2.2	7.3	3.9	6.9	96.1
LBW	1.3	1.9	1.7	1.5	2.3	98.5

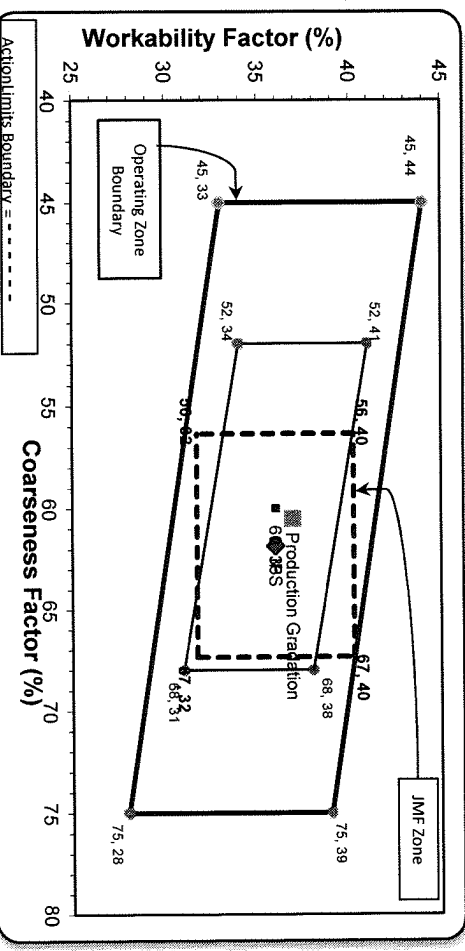
*Maximum % Retained must be above the 3/8" sieve.
 *Any two adjacent sieves must equal 10% except max., nom. max., #100 and #200 sieves.
 *% Retained must be at least 4% for each sieve except max., nom. max., #100 and #200 sieves.
 *% Retained must be at least 8% for the 1" sieve when a 2" max. size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



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Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: **61** Workability Factor: **34** Adjusted WF: **36.9**



Sieve	Initial Production Sample (IPS)	Coarseness Factor:	Workability Factor:	Adjusted WF
2"	100.0	62	36	36.9
1.5"	100.0			
1"	100.0			
3/4"	95.0			
1/2"	72.3			
3/8"	60.4			
#4	42.6			
#8	36.0			
#16	29.5			
#30	20.3			
#50	9.5			
#100	3.4			
LBW	1.3			

PREPARED BY:
 SM, LLC Technical Service

Approved By: _____

Edw. C. Levy Co.

JMT
 8911 W. Jefferson
 Detroit, 48209
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Plant 958-JMT

Product 1054-6AA LS PI

Name/Title Doug Storey / QC Technician

Period: 02/05/2023 - 02/11/2023

Report Date 02/10/2023

Procedure	Sieve/Test	Result	Unit	6AA LS PI Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	100.0	%	95-100
	3/4" (19mm)	77.3	%	
	1/2" (12.5mm)	38.6	%	30-60
	3/8" (9.5mm)	20.6	%	
	#4 (4.75mm)	3.1	%	0-8
	#8 (2.36mm)	1.8	%	
	#16 (1.18mm)	1.7	%	
	#30 (.6mm)	1.7	%	
	#50 (.3mm)	1.6	%	
	#100 (.15mm)	1.5	%	
	#200 (75µm)	1.4	%	
	Wash Loss (#200/75um)	1.3	%	0-2
	Total Moisture	3.3	%	

Plant 958-JMT

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 02/05/2023 - 02/11/2023

Report Date 02/10/2023

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)	98.6	%	95-100
	3/8" (9.5mm)	89.4	%	60-95
	#4 (4.75mm)	20.9	%	5-30
	#8 (2.36mm)	5.8	%	0-12
	#16 (1.18mm)	3.0	%	
	#30 (.6mm)	2.5	%	
	#50 (.3mm)	2.4	%	
	#100 (.15mm)	2.2	%	
	#200 (75µm)	2.0	%	
	Wash Loss (#200/75um)	1.9	%	0-3
	Total Moisture	6.0	%	

Plant 958-JMT

Product 1022-2NS GR - Smelter Bay

Name/Title Doug Storey / QC Technician

Period: 02/05/2023 - 02/11/2023

Report Date 02/10/2023

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	95.6	%	95-100
	#8 (2.36mm)	83.0	%	65-95
	#16 (1.18mm)	68.2	%	35-75
	#30 (.6mm)	50.0	%	20-55
	#50 (.3mm)	24.5	%	10-30
	#100 (.15mm)	7.3	%	0-10
	#200 (75µm)	2.0	%	
	FM	2.71		2.6-3
	Wash Loss (#200/75um)	1.7	%	0-3
	Total Moisture	6.1	%	