

# Aggregate Optimization Chart

# Production Gradation Report

**PLANT #:** P-32

Sample Date: 1/24/22

Dates Test Represents: 1/25/2022 through 1/31/2022

Concrete Grade: DM

Contractor: \_\_\_\_\_

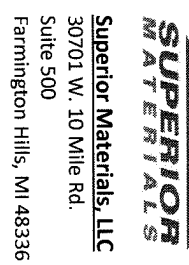
MDOT No.: \_\_\_\_\_

Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1555	9.51	2.62	53.5
26A	71-47	Presque Isle	200	1.22	2.62	6.9
2NS	95-013	Smelter Bay	1150	6.95	2.65	39.6
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"	99.2	100.0	100.0	99.6	0.4	0.4
3/4"	80.0	100.0	100.0	89.3	10.3	10.7
1/2"	33.0	97.7	100.0	64.0	25.3	36.0
3/8"	17.7	89.7	100.0	55.2	8.7	44.8
#4	4.8	27.9	96.0	42.5	12.7	57.5
#8	3.9	11.5	83.3	35.9	6.6	64.1
#16	3.5	5.1	68.2	29.2	6.6	70.8
#30	3.2	3.5	48.0	21.0	8.3	79.0
#50	2.8	2.9	23.1	10.8	10.1	89.2
#100	2.5	2.6	6.7	4.2	6.7	95.8
LBW	1.5	2.0	1.2	1.4	2.8	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.

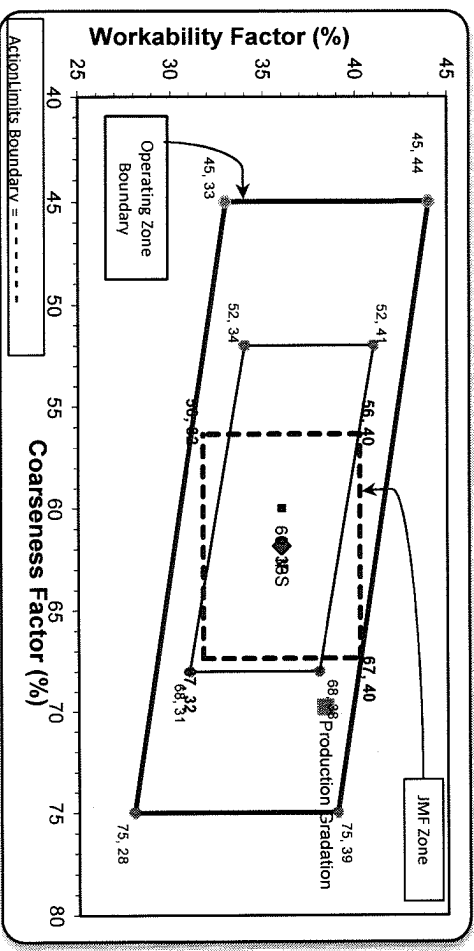


Production Gradation  Batch Plant Gradations  Aggregate Supplier Gradations

Coarseness Factor: 70 Workability Factor: 36 Adjusted WF: 38.4

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

PREPARED BY: SM, LLC Technical Service

Approved By: \_\_\_\_\_

Plant 958-JMT

Product 1022-2NS GR - Smelter Bay

Name/Title Doug Storey / QC Technician

Period: 01/23/2022 - 01/29/2022

Report Date 01/28/2022

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	96.0	%	95-100
	#8 (2.36mm)	83.3	%	65-95
	#16 (1.18mm)	68.2	%	35-75
	#30 (.6mm)	48.0	%	20-55
	#50 (.3mm)	23.1	%	10-30
	#100 (.15mm)	6.7	%	0-10
	#200 (75µm)	1.8	%	
	FM	2.74		2.6-3
	Wash Loss (#200/75um)	1.2	%	0-3
	Total Moisture	4.8	%	

Plant 958-JMT

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 01/23/2022 - 01/29/2022

Report Date 01/28/2022

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)	89.7	%	60-95
	#4 (4.75mm)	27.9	%	5-30
	#8 (2.36mm)	11.5	%	0-12
	#16 (1.18mm)	5.1	%	
	#30 (.6mm)	3.5	%	
	#50 (.3mm)	2.9	%	
	#100 (.15mm)	2.6	%	
	#200 (75µm)	2.2	%	
	Wash Loss (#200/75µm)	2.0	%	0-3
	Total Moisture	4.3	%	

# Edw. C. Levy Co.

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Plant 958-JMT

Product 1054-6AA LS PI

Period: 01/23/2022 - 01/29/2022

Name/Title Doug Storey / QC Technician

Report Date 01/28/2022

Procedure	Sieve/Test	Result	Unit	6AA LS PI Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	99.2	%	95-100
	3/4" (19mm)	80.0	%	
	1/2" (12.5mm)	33.0	%	30-60
	3/8" (9.5mm)	17.7	%	
	#4 (4.75mm)	4.8	%	0-8
	#8 (2.36mm)	3.9	%	
	#16 (1.18mm)	3.5	%	
	#30 (.6mm)	3.2	%	
	#50 (.3mm)	2.8	%	
	#100 (.15mm)	2.5	%	
	#200 (75µm)	1.8	%	
	Wash Loss (#200/75µm)	1.5	%	0-2
	Total Moisture	3.4	%	