

# Aggregate Optimization Chart

# Production Gradation Report

PLANT #: **P-32**

Sample Date: **4/25/22**

Dates Test Represents: **4/26/2022** through **5/2/2022**

Concrete Grade: **S2M, 3500HP**

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

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

Aggr. Class	Pit #	Source	Weight (ssd)	ft <sup>3</sup>	Specific Gravity	Contribution %
6AA	71-47	Presque Isle	1520	9.30	2.62	49.8
26A	71-47	Presque Isle	300	1.83	2.62	9.8
2NS	95-013	Smelter Bay	1230	7.44	2.65	40.3
<b>Total Wt</b>			<b>3050</b>	<b>18.57</b>		<b>100.0</b>

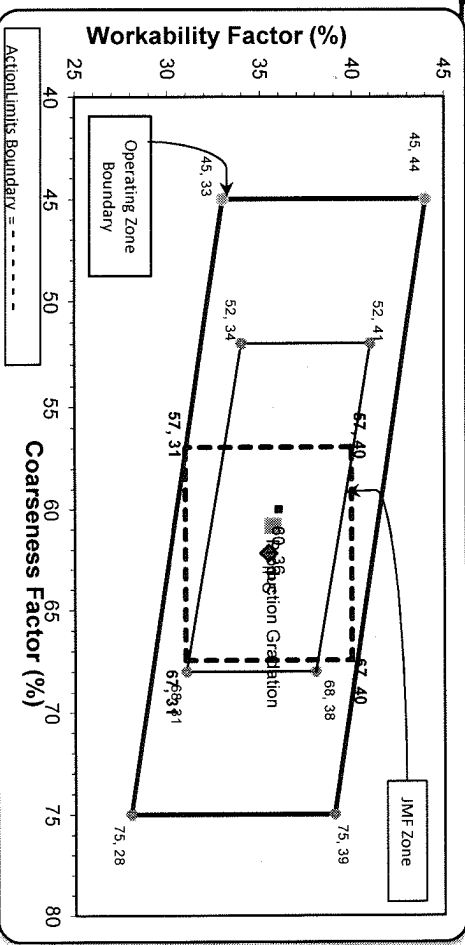
Verify this number is 100%

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"	85.9	100.0	100.0	93.0	6.4	7.0
1/2"	49.1	93.5	100.0	74.0	19.0	26.0
3/8"	26.0	77.3	100.0	60.9	13.1	39.1
#4	5.1	23.7	95.5	43.4	17.5	56.6
#8	2.9	8.2	82.9	35.7	7.7	64.3
#16	2.5	3.8	68.2	29.1	6.6	70.9
#30	2.4	2.8	49.6	21.5	7.6	78.5
#50	2.3	2.4	24.2	11.1	10.3	88.9
#100	2.2	2.1	7.1	4.2	7.0	95.8
LBW	1.9	1.8	1.6	1.8	2.4	98.2

\*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: **36**



Initial Production Sample (IPS)

Sieve	Coarseness Factor:	Workability Factor:	Cumulative % Passing	% Retained	Cumulative % Retained
2"	<b>62</b>	<b>35</b>	100.0	0.0	0.0
1.5"			100.0	0.0	0.0
1"			100.0	0.0	0.0
3/4"			94.0	6.0	6.0
1/2"			70.2	23.7	29.8
3/8"			59.9	10.4	40.1
#4			42.7	17.2	57.3
#8			35.5	7.2	64.5
#16			28.4	7.0	71.6
#30			19.2	9.2	80.8
#50			8.9	10.3	91.1
#100			3.1	5.9	96.9
LBW			1.4	1.7	98.6



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PREPARED BY:  
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Approved By:

*[Signature]*

Plant 958-JMT

Product 1022-2NS GR - Smelter Bay

Name/Title Doug Storey / QC Technician

Period: 04/24/2022 - 04/30/2022

Report Date 04/29/2022

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	95.5	%	95-100
	#8 (2.36mm)	82.9	%	65-95
	#16 (1.18mm)	68.2	%	35-75
	#30 (.6mm)	49.6	%	20-55
	#50 (.3mm)	24.2	%	10-30
	#100 (.15mm)	7.1	%	0-10
	#200 (75µm)	2.0	%	
	FM	2.72		2.6-3
	Wash Loss (#200/75um)	1.6	%	0-3
	Total Moisture	5.7	%	

Plant 958-JMT

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 04/24/2022 - 04/30/2022

Report Date 04/29/2022

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)	93.5	%	95-100
	3/8" (9.5mm)	77.3	%	60-95
	#4 (4.75mm)	23.7	%	5-30
	#8 (2.36mm)	8.2	%	0-12
	#16 (1.18mm)	3.8	%	
	#30 (.6mm)	2.8	%	
	#50 (.3mm)	2.4	%	
	#100 (.15mm)	2.1	%	
	#200 (75µm)	1.9	%	
	Wash Loss (#200/75um)	1.8	%	0-3
	Total Moisture	4.0	%	

Plant 958-JMT  
 Product 1054-6AA LS PI  
 Period: 04/24/2022 - 04/30/2022

Name/Title Doug Storey / QC Technician  
 Report Date 04/29/2022

Procedure	Sieve/Test	Result	Unit	6AA LS PI Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	98.7	%	95-100
	3/4" (19mm)	85.9	%	
	1/2" (12.5mm)	49.1	%	30-60
	3/8" (9.5mm)	26.0	%	
	#4 (4.75mm)	5.1	%	0-8
	#8 (2.36mm)	2.9	%	
	#16 (1.18mm)	2.5	%	
	#30 (.6mm)	2.4	%	
	#50 (.3mm)	2.3	%	
	#100 (.15mm)	2.2	%	
	#200 (75µm)	2.0	%	
	Wash Loss (#200/75um)	1.9	%	0-2
	Total Moisture	3.0	%	