Aggregate Optimization Chart

Production Gradation Report

PLANT #: P-32

Contractor: _____

Sample Date: 5/16/22

Concrete Grade: **DM, 4500HP**

Dates Test Represents: 5/17/2022 through 5/23/2022

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	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

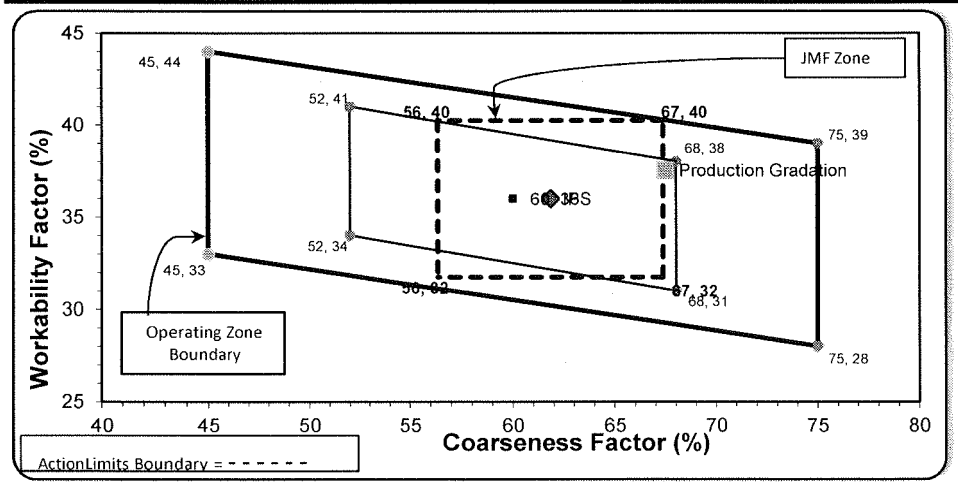
<----- Verify this number is 100%

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"	98.7	100.0	100.0	99.3	0.7	0.7
3/4"	82.9	100.0	100.0	90.8	8.5	9.2
1/2"	39.9	94.9	100.0	67.5	23.4	32.5
3/8"	20.0	85.4	100.0	56.2	11.3	43.8
#4	4.2	25.4	96.2	42.1	14.1	57.9
#8	2.0	6.4	84.7	35.0	7.0	65.0
#16	1.7	2.7	69.1	28.5	6.6	71.5
#30	1.7	2.2	50.6	21.1	7.4	78.9
#50	1.6	2.1	24.9	10.9	10.2	89.1
#100	1.5	2.1	6.9	3.7	7.2	96.3
LBW	1.2	1.9	1.4	1.3	2.4	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

Coarseness Factor:	67	Workability Factor:	35	Adjusted WF	37.5



Intial 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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PREPARED BY:
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Approved By:

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Plant 958-JMT

Product 1022-2NS GR - Smelter Bay

Period: 05/15/2022 - 05/21/2022

Name/Title Doug Storey / QC Technician

Report Date 05/20/2022

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	96.2	%	95-100
	#8 (2.36mm)	84.7	%	65-95
	#16 (1.18mm)	69.1	%	35-75
	#30 (.6mm)	50.6	%	20-55
	#50 (.3mm)	24.9	%	10-30
	#100 (.15mm)	6.9	%	0-10
	#200 (75µm)	1.6	%	
	FM	2.68		2.6-3
	Wash Loss (#200/75um)	1.4	%	0-3
	Total Moisture	6.5	%	

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Plant 958-JMT

Product 1067-26A Mod LS

Period: 05/15/2022 - 05/21/2022

Name/Title Doug Storey / QC Technician

Report Date 05/20/2022

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)	94.9	%	95-100
	3/8" (9.5mm)	85.4	%	60-95
	#4 (4.75mm)	25.4	%	5-30
	#8 (2.36mm)	6.4	%	0-12
	#16 (1.18mm)	2.7	%	
	#30 (.6mm)	2.2	%	
	#50 (.3mm)	2.1	%	
	#100 (.15mm)	2.1	%	
	#200 (75µm)	2.0	%	
	Wash Loss (#200/75um)	1.9	%	0-3

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Plant 958-JMT

Product 1054-6AA LS PI

Period: 05/15/2022 - 05/21/2022

Name/Title Doug Storey / QC Technician

Report Date 05/20/2022

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)	82.9	%	
	1/2" (12.5mm)	39.9	%	30-60
	3/8" (9.5mm)	20.0	%	
	#4 (4.75mm)	4.2	%	0-8
	#8 (2.36mm)	2.0	%	
	#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)	1.2	%	0-2