

Aggregate Optimization Chart

Production Gradation Report

PLANT #: P-32

Sample Date: 2/28/22

Dates Test Represents: 3/1/2022 through 3/7/2022

Concrete Grade: DM, 4500HP

through

Contractor:

MDOT No.:

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1455	8.90	2.62	50.1
26A	71-47	Presque Isle	300	1.83	2.62	10.3
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"	95.0	100.0	100.0	97.5	2.5	2.5
3/4"	67.8	100.0	100.0	83.9	13.6	16.1
1/2"	30.8	98.8	100.0	65.2	18.7	34.8
3/8"	16.9	90.8	100.0	57.4	7.8	42.6
#4	5.3	28.5	95.8	43.5	13.9	56.5
#8	2.2	6.0	83.6	34.8	8.7	65.2
#16	2.0	4.1	68.5	28.5	6.3	71.5
#30	1.7	3.1	49.2	20.6	7.9	79.4
#50	1.6	2.6	24.2	10.6	10.0	89.4
#100	1.4	2.3	7.2	3.8	6.9	96.2
LBW	0.9	1.9	1.5	1.2	2.5	98.8

*Maximum % Retained must be above the 3/8" sieve.
 *Any two adjacent sieves must equal 10% except max.
 norm. max. #100 and #200 sieves.
 *% Retained must be at least 4% for each sieve except max.
 norm. 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.

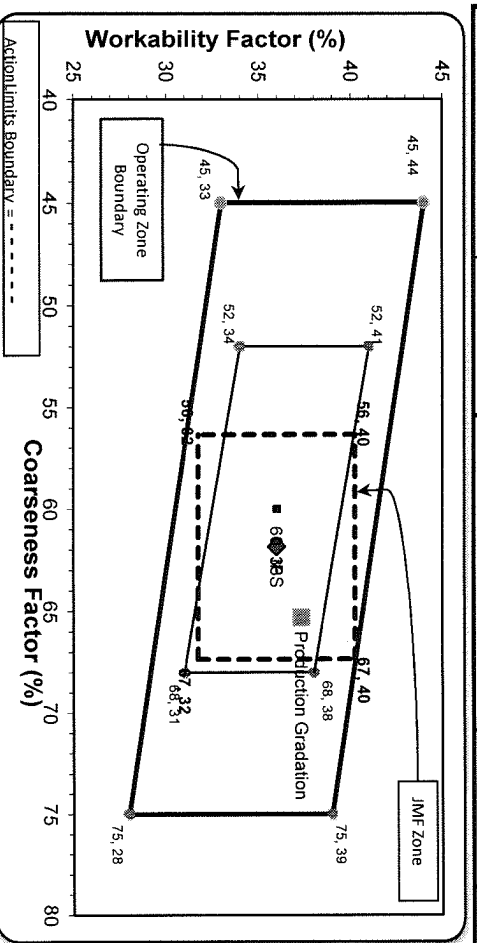
Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Initial Production Sample (IPS)

Coarseness Factor: 62

Workability Factor: 36

Adjusted WF 37.3



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:
 SM, LLC Technical Service

Approved By:

Plant 958-JMT

Product 1022-2NS GR - Smelter Bay

Name/Title Doug Storey / QC Technician

Period: 02/27/2022 - 03/05/2022

Report Date 03/05/2022

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	95.8	%	95-100
	#8 (2.36mm)	83.6	%	65-95
	#16 (1.18mm)	68.5	%	35-75
	#30 (.6mm)	49.2	%	20-55
	#50 (.3mm)	24.2	%	10-30
	#100 (.15mm)	7.2	%	0-10
	#200 (75µm)	2.1	%	
	FM	2.71		2.6-3
	Wash Loss (#200/75um)	1.5	%	0-3
	Total Moisture	4.8	%	

Plant 958-JMT

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 02/27/2022 - 03/05/2022

Report Date 03/05/2022

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)	98.8	%	95-100
	3/8" (9.5mm)	90.8	%	60-95
	#4 (4.75mm)	28.5	%	5-30
	#8 (2.36mm)	6.0	%	0-12
	#16 (1.18mm)	4.1	%	
	#30 (.6mm)	3.1	%	
	#50 (.3mm)	2.6	%	
	#100 (.15mm)	2.3	%	
	#200 (75µm)	2.0	%	
	Wash Loss (#200/75um)	1.9	%	0-3
	Total Moisture	4.0	%	

Edw. C. Levy Co.

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Plant 958-JMT

Product 1054-6AA LS PI

Name/Title Doug Storey / QC Technician

Period: 02/27/2022 - 03/05/2022

Report Date 03/05/2022

Procedure	Sieve/Test	Result	Unit	6AA LS PI Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	95.0	%	95-100
	3/4" (19mm)	67.8	%	
	1/2" (12.5mm)	30.8	%	30-60
	3/8" (9.5mm)	16.9	%	
	#4 (4.75mm)	5.3	%	0-8
	#8 (2.36mm)	2.2	%	
	#16 (1.18mm)	2.0	%	
	#30 (.6mm)	1.7	%	
	#50 (.3mm)	1.6	%	
	#100 (.15mm)	1.4	%	
	#200 (75µm)	1.2	%	
	Wash Loss (#200/75um)	0.9	%	0-2
	Total Moisture	2.6	%	