

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-32**

Sample Date: **4/12/21**

Dates Test Represents: **4/13/2021** through **4/19/2021**

Concrete Grade: **S2M**

Contractor: _____

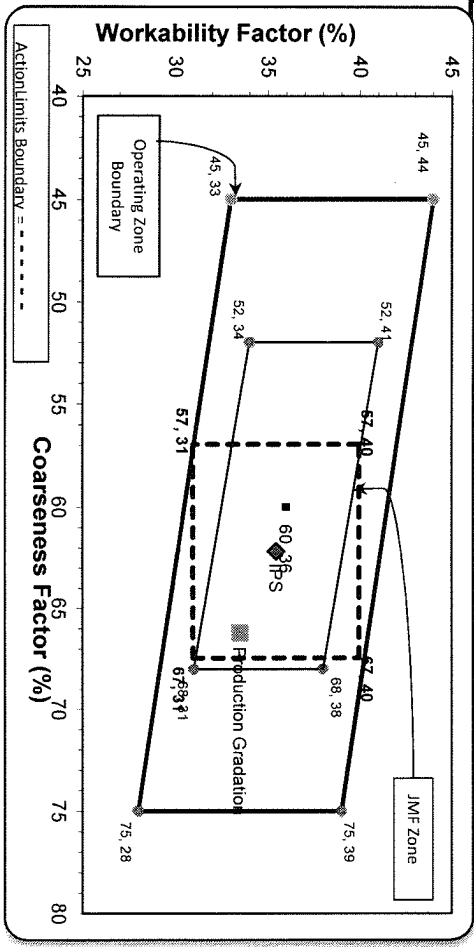
MDOT No.: _____

Aggr. Class	Pit #	Source	Weight (ssd)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1620	9.91	2.62	53.1
26A	71-47	Presque Isle	200	1.22	2.62	6.6
2NS	95-013	Smeller Bay	1230	7.44	2.65	40.3
Total Wt			3050	18.57		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"	97.3	100.0	100.0	98.6	1.4	1.4
3/4"	78.5	100.0	100.0	88.6	10.0	11.4
1/2"	38.3	95.7	100.0	66.9	21.6	33.1
3/8"	19.1	83.8	100.0	56.0	11.0	44.0
#4	5.1	22.3	95.2	42.6	13.4	57.4
#8	2.5	8.4	78.4	33.5	9.1	66.5
#16	1.9	4.2	63.5	26.9	6.6	73.1
#30	1.8	3.1	47.9	20.5	6.4	79.5
#50	1.6	2.3	27.4	12.1	8.4	87.9
#100	1.5	2.1	2.6	2.0	10.1	98.0
LBW	1.0	1.5	1.4	1.2	0.8	98.8

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: **66** Workability Factor: **33**



Initial Production Sample (IPS)

Coarseness Factor: **62** Workability Factor: **35**

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"	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



*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.

PREPARED BY:
SM, LLC Technical Service

Approved By: _____

Plant 958-JMT

Product 1022-2NS GR - Smelter Bay

Name/Title Doug Storey / QC Technician

Period: 04/11/2021 - 04/17/2021

Report Date 04/16/2021

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	95.2	%	95-100
	#8 (2.36mm)	78.4	%	65-95
	#16 (1.18mm)	63.5	%	35-75
	#30 (.6mm)	47.9	%	20-55
	#50 (.3mm)	27.4	%	10-30
	#100 (.15mm)	2.6	%	0-10
	#200 (75µm)	1.5	%	
	FM	2.85		2.6-3
	Wash Loss (#200/75um)	1.4	%	0-3
	Total Moisture	5.7	%	

Plant 958-JMT

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 04/04/2021 - 04/10/2021

Report Date 04/09/2021

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)	95.7	%	95-100
	3/8" (9.5mm)	83.8	%	60-95
	#4 (4.75mm)	22.3	%	5-30
	#8 (2.36mm)	8.4	%	0-12
	#16 (1.18mm)	4.2	%	
	#30 (.6mm)	3.1	%	
	#50 (.3mm)	2.3	%	
	#100 (.15mm)	2.1	%	
	#200 (75µm)	1.7	%	
	Wash Loss (#200/75um)	1.5	%	0-3
	Total Moisture	3.8	%	

Plant 958-JMT

Product 1054-6AA LS PI

Name/Title Doug Storey / QC Technician

Period: 04/11/2021 - 04/17/2021

Report Date 04/16/2021

Procedure	Sieve/Test	Result	Unit	6AA LS PI Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	97.3	%	95-100
	3/4" (19mm)	78.5	%	
	1/2" (12.5mm)	38.3	%	30-60
	3/8" (9.5mm)	19.1	%	
	#4 (4.75mm)	5.1	%	0-8
	#8 (2.36mm)	2.5	%	
	#16 (1.18mm)	1.9	%	
	#30 (.6mm)	1.8	%	
	#50 (.3mm)	1.6	%	
	#100 (.15mm)	1.5	%	
	#200 (75µm)	1.2	%	
	Wash Loss (#200/75um)	1.0	%	0-2
	Total Moisture	2.5	%	