

# Aggregate Optimization Chart

## Production Gradation Report

PLANT #: **P-32**

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

Sample Date: **1/4/21**

Concrete Grade: **DM**

Dates Test Represents: **1/5/2021** through **1/11/2021**

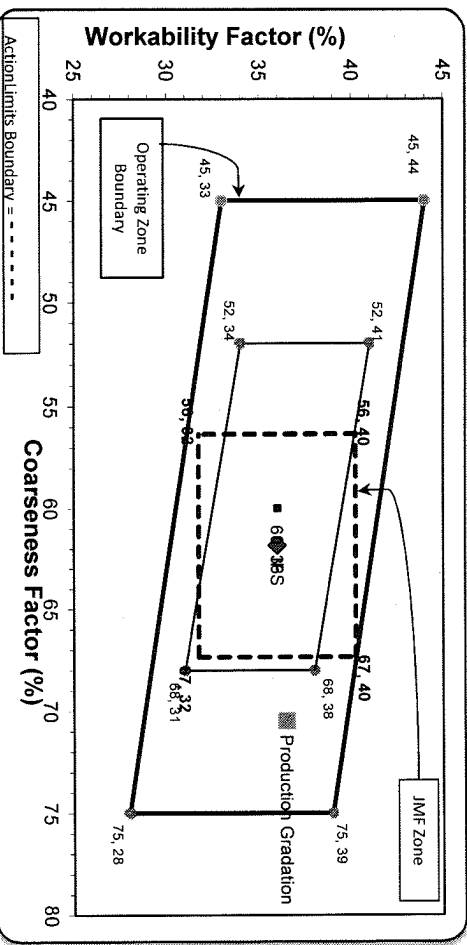
MDOT No.: \_\_\_\_\_

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
<b>Total Wt</b>			<b>2905</b>	<b>17.69</b>		<b>100.0</b>

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"	99.1	100.0	100.0	99.5	0.5	0.5
3/4"	75.2	100.0	100.0	86.7	12.8	13.3
1/2"	31.7	98.8	100.0	63.4	23.4	36.6
3/8"	14.9	85.8	100.0	53.5	9.9	46.5
#4	2.5	15.2	96.4	40.5	12.9	59.5
#8	1.9	3.4	82.7	34.0	6.6	66.0
#16	1.7	1.9	67.0	27.6	6.4	72.4
#30	1.6	1.7	46.4	19.3	8.2	80.7
#50	1.5	1.6	19.1	8.5	10.9	91.5
#100	1.4	1.5	4.4	2.6	5.9	97.4
LBW	1.1	1.2	0.8	1.0	1.6	99.0

Production Gradation  Batch Plant Gradations  Aggregate Supplier Gradations

Coarseness Factor: **70** Workability Factor: **34** Adjusted WF: **36.5**



Sieve	Initial Production Sample (PS)	Coarseness Factor:	Workability Factor:	Adjusted WF
2"	100.0	70	34	36.5
1.5"	100.0	70	34	36.5
1"	99.1	70	34	36.5
3/4"	75.2	70	34	36.5
1/2"	31.7	70	34	36.5
3/8"	14.9	70	34	36.5
#4	2.5	70	34	36.5
#8	1.9	70	34	36.5
#16	1.7	70	34	36.5
#30	1.6	70	34	36.5
#50	1.5	70	34	36.5
#100	1.4	70	34	36.5
LBW	1.1	70	34	36.5

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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\*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.

# Edw. C. Levy Co.

Plant 958-JMT

Product 1054-6AA LS PI

Period: 01/03/2021 - 01/09/2021

Name/Title Doug Storey / QC Technician

Report Date 01/08/2021

Procedure	Sieve/Test	Result	Unit	6AA LS PI Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	99.1	%	95-100
	3/4" (19mm)	75.2	%	
	1/2" (12.5mm)	31.7	%	30-60
	3/8" (9.5mm)	14.9	%	
	#4 (4.75mm)	2.5	%	0-8
	#8 (2.36mm)	1.9	%	
	#16 (1.18mm)	1.7	%	
	#30 (.6mm)	1.6	%	
	#50 (.3mm)	1.5	%	
	#100 (.15mm)	1.4	%	
	#200 (75µm)	1.2	%	
	Wash Loss (#200/75um)	1.1	%	0-2
	Total Moisture	3.1	%	

# Edw. C. Levy Co.

Plant 958-JMT

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 01/03/2021 - 01/09/2021

Report Date 01/08/2021

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)	98.8	%	95-100
	3/8" (9.5mm)	85.8	%	60-95
	#4 (4.75mm)	15.2	%	5-30
	#8 (2.36mm)	3.4	%	0-12
	#16 (1.18mm)	1.9	%	
	#30 (.6mm)	1.7	%	
	#50 (.3mm)	1.6	%	
	#100 (.15mm)	1.5	%	
	#200 (75µm)	1.3	%	
	Wash Loss (#200/75um)	1.2	%	0-3
	Total Moisture	3.7	%	

# Edw. C. Levy Co.

**Plant** 958-JMT  
**Product** 1022-2NS GR - Smelter Bay  
**Period:** 01/03/2021 - 01/09/2021

**Name/Title** Doug Storey / QC Technician  
**Report Date** 01/08/2021

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	96.4	%	95-100
	#8 (2.36mm)	82.7	%	65-95
	#16 (1.18mm)	67.0	%	35-75
	#30 (.6mm)	46.4	%	20-55
	#50 (.3mm)	19.1	%	10-30
	#100 (.15mm)	4.4	%	0-10
	#200 (75µm)	0.8	%	
	FM	2.84		2.6-3
	Wash Loss (#200/75um)	0.8	%	0-3
	Total Moisture	6.2	%	