#### Production Gradation Report

PLANT	#:	P-101					Contractor:				
Sample Date	e:	10/23/23		С	oncrete Grade	: DM, 4500HP				•	
ates Test F	Represents:	10/24/2023	through	10/30/2023			MDOT No.:				
lgg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution					
6AA	71-47	Presque Isle	1450	8.87	2.62	50.0					
26A	71-47	Presque Isle	300	1.83	2.62	10.3					
2NS	75-051	Mid Michigan	1150	6.93	2.66	39.7				SUP	ERIOR
		Total Wt	2900	17.63		100.0	< Verify this n	umber is 100%	1		RIALS
Sieve		6AA	26	Ā	2NS	Cumulative % Passing	% Retained	Cumulative % Retained		<u>Superior N</u> 30701 W. 1	<b>Materials, LLC</b> LO Mile Rd.
2"	1	100.0	100	0.0	100.0	100.0	0.0	0.0		Suite 500	
1.5"		100.0	100		100.0	100.0	0.0	0.0	1	Farmingtor	n Hills, MI 48336
1"		98.8	100	0.0	100.0	99.4	0.6	0.6	1		
3/4"		81.5	100		100.0	90.8	8.7	9.3			
1/2"		38.6	96	.0	100.0	68.9	21.9	31.1			
3/8"		24.2	86	.4	100.0	60.7	8.2	39.3	*Maximum %	Retained must be a	above the 3/8" sieve.
#4		3.7	20		95.8	42.0	18.7	58.1	*Any two adja	icent sieves must ea	qual 10% except max.
#8		2.1	4.	-	79.4	33.0	9.0	67.0	nom. max., #10	00 and #200 sieves.	
#16		1.9	2.		63.5	26.3	6.6	73.7			for each sieve except
#30		1.8	1.		48.1	20.1	6.2	79.9	· · · · ·	00 and #200 sieves.	
#50		1.8	1.		24.4	10.7	9.4	89.3			for the 3/4" sieve whe
#100 LBW		1.7 1.4	1.		6.5 0.8	3.6 1.1	7.1 2.4	96.4 98.9	a 1.5" max. siz	e (nom. Max. 1.0") a	aggregate is used.
	Non-stations	Batch Plant Gra		. <i>2</i> regate Supplier Grad			-				
roduction G		-	0 55	cability Factor:		35.5		ion Sample (IPS	<i>.</i>		
Coarsen	ess Factor:	59	WARV	a hility Factory	33	26.6			62		
				ability ractor.		33.3		eness Factor:			
45 -								ability Factor:	35		
45	45, 44				JMF Zone			ability Factor: Cumulative	35 %	Cumulative	
45 <u>-</u>	45, 44						Work Sieve	ability Factor: Cumulative % Passing	35 % Retained	% Retained	
40 -	45, 44	52, 41	57, 32	67, 39	JMF Zone		Work Sieve 2"	ability Factor: Cumulative % Passing 100.0	<b>35</b> % Retained 0.0	% Retained 0.0	
40 -	45, 44		57, 39	67, 39	JMF Zone		Work Sieve 2" 1.5"	ability Factor: Cumulative % Passing 100.0 100.0	<b>35</b> % Retained 0.0 0.0	% Retained 0.0 0.0	
40 -	45, 44		57, 39	<b>67, 39</b> 68, 38	JMF Zone		Work Sieve 2" 1.5" 1"	ability Factor: Cumulative % Passing 100.0 100.0 100.0	35 % Retained 0.0 0.0 0.0	% Retained 0.0 0.0 0.0	
40 -	45, 44		57, 39	67, 39	JMF Zone		Work Sieve 2" 1.5" 1" 3/4"	ability Factor: Cumulative % Passing 100.0 100.0 100.0 95.0	35 % Retained 0.0 0.0 0.0 5.0	% Retained 0.0 0.0 0.0 5.0	
40 -	45, 44		57, 39	<b>67, 39</b> 68, 38	JMF Zone		Work Sieve 2" 1.5" 1" 3/4" 1/2"	ability Factor: Cumulative % Passing 100.0 100.0 100.0 95.0 70.5	<b>35</b> % Retained 0.0 0.0 0.0 5.0 24.5	% Retained 0.0 0.0 0.0 5.0 29.5	
40 -	45, 44	52, 41	57, 39	<b>67, 39</b> 68, 38	JMF Zone		Work Sieve 2" 1.5" 1" 3/4" 1/2" 3/8"	ability Factor: Cumulative % Passing 100.0 100.0 100.0 95.0 70.5 60.0	35 % Retained 0.0 0.0 0.0 5.0 24.5 10.5	% Retained 0.0 0.0 0.0 5.0 29.5 40.0	
40 -		52, 41	57, 39	<b>67, 39</b> 68, 38	75, 39		Work 2" 1.5" 1" 3/4" 1/2" 3/8" #4	ability Factor: Cumulative % Passing 100.0 100.0 95.0 70.5 60.0 44.4	35 % Retained 0.0 0.0 0.0 5.0 24.5 10.5 15.6	% Retained 0.0 0.0 5.0 29.5 40.0 55.6	
40 -	45, 33	52, 41	57, 39	67, 39 68, 38 098Gradation	75, 39		Work Sieve 2" 1.5" 1" 3/4" 1/2" 3/8" #4 #8	ability Factor: Cumulative % Passing 100.0 100.0 95.0 70.5 60.0 44.4 35.5	35 % Retained 0.0 0.0 0.0 5.0 24.5 10.5 15.6 9.0	% Retained           0.0           0.0           0.0           20.0           29.5           40.0           55.6           64.5	
40 -	45, 33 Operating Zone	52, 41	57, 39	67, 39 68, 38 098Gradation	75, 39		Work 2" 1.5" 1" 3/4" 1/2" 3/8" #4	ability Factor: Cumulative % Passing 100.0 100.0 95.0 70.5 60.0 44.4	35 % Retained 0.0 0.0 0.0 5.0 24.5 10.5 15.6	% Retained 0.0 0.0 5.0 29.5 40.0 55.6	
Norkability Factor (%)	45, 33	52, 41	57, 39	67, 39 68, 38 098Gradation	JMF Zone		Work 2" 1.5" 1" 3/4" 1/2" 3/8" #4 #8 #16	ability Factor: Cumulative % Passing 100.0 100.0 95.0 70.5 60.0 44.4 35.5 28.5	35 % Retained 0.0 0.0 0.0 5.0 24.5 10.5 15.6 9.0 7.0	% Retained           0.0           0.0           0.0           29.5           40.0           55.6           64.5           71.5	
40 -	45, 33 Operating Zone	52, 41	57, 39	67, 39 68, 38 098Gradation	JMF Zone 75, 39 1 75, 28		Work 2" 1.5" 1" 3/4" 1/2" 3/8" #4 #8 #16 #30	ability Factor: Cumulative % Passing 100.0 100.0 95.0 70.5 60.0 44.4 35.5 28.5 21.5	35 % Retained 0.0 0.0 5.0 24.5 10.5 15.6 9.0 7.0 7.0	% Retained           0.0           0.0           0.0           20.5           40.0           55.6           64.5           71.5           78.5	

Approved By: Mart 1. Ball

	#:	P-102					Contractor:				
Sample Date		10/23/23			Concrete Grade	: DM, 4500HP					
Dates Test R	•	10/24/2023	through	10/30/2023	Specific	%	MDOT No.:				
Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Gravity	Contribution					
6AA	58-003	Stoneco	1500	8.94	2.69	50.8					
26A	58-003	Stoneco	300	1.79	2.69	10.2					
2NS	81-019	Pleasant Lake Total Wt		6.95 <b>17.68</b>	2.65	39.0 100.0	< Vorific this p	umborio 100%			ERIOR
			2950	17.00			< Verify this n		1	MATE	RIALS
Sieve		6AA	26	6A	2NS	Cumulative	% Retained	Cumulative		Superior I	Materials, LLC
<b>O</b> leve					2110	% Passing	/o notanica	% Retained		30701 W. 1	10 Mile Rd.
2"	1	00.0	10	0.0	100.0	100.0	0.0	0.0		Suite 500	
1.5"	1	00.0	10	0.0	100.0	100.0	0.0	0.0	1	Farmingtor	n Hills, MI 48336
1"	1	00.0	10		100.0	100.0	0.0	0.0			
3/4"		84.8	-	0.0	100.0	92.3	7.7	7.7			
1/2"		40.4	99		100.0	69.6	22.7	30.4			
3/8"		17.7	88	-	100.0	56.9	12.7	43.1			above the 3/8" sieve.
#4	4 2.1		9.6		98.3	40.4	16.6	59.6		*Any two adjacent sieves must equal 10% e	
	#8 1.3		3.2 2.3		85.6	34.4	6.0	65.6	nom. max., #100 and #200 sieves. *% Retained must be at least 4% for each sieve exc		
#16 #30		<u>1.1</u> 1.0	2.	-	68.3 48.1	27.4 19.5	6.9 8.0	72.6 80.5			
#30 #50		1.0	1.	-	23.5	9.9	9.6	90.5	,	00 and #200 sieves	o for the 3/4" sieve whe
#100		0.9	1.		4.9	2.6	7.3	97.4		e (nom. Max. 1.0")	
LBW		0.8	1.		0.5	0.8	1.8	99.2	a 1.5 max. 312		aggregate is used.
Production G	and at an	Batch Plant Gra	adations 💽 Agg	regate Supplier Gra	dations	Adjusted WF	Intial Production	on Sample (IPS	2)		
TOQUCLION G	radation										
	ess Factor:	<u> </u>	Work	ability Factor:	34	36.9		eness Factor:	61		
Coarsene		<u> </u>	Work	cability Factor:	34		Coars	eness Factor:	ć		
Coarsene	ess Factor:	<u> </u>	Work	ability Factor:			Coars Work		61	Cumulative	
Coarsene		66	Worł	cability Factor:	34 JMF Zone		Coars	eness Factor: ability Factor:	61 36		
45 4	ess Factor:	<u> </u>	Work	cability Factor:			Coars Work Sieve 2"	eness Factor: ability Factor: Cumulative	61 36 %	Cumulative % Retained 0.0	
<b>Coarsene</b>	ess Factor:	66	Work	e7.40			Coars Work Sieve 2" 1.5"	eness Factor: ability Factor: Cumulative % Passing 100.0 100.0	61 36 % Retained 0.0 0.0	% Retained 0.0 0.0	
<b>Coarsene</b>	ess Factor:	66	Worl	68, 38	JMF Zone		Coars Work Sieve 2" 1.5" 1"	eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 99.3	61 36 % Retained 0.0 0.0 0.7	% Retained 0.0 0.0 0.7	
<b>Coarsene</b>	ess Factor:	66	Work	68, 38	JMF Zone		Coars Work Sieve 2" 1.5" 1" 3/4"	eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 99.3 89.2	61 36 % Retained 0.0 0.0 0.7 10.1	% Retained 0.0 0.0 0.7 10.8	
<b>Coarsene</b>	ess Factor:	66		68, 38	JMF Zone		Coars Work Sieve 2" 1.5" 1" 3/4" 1/2"	eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 99.3 89.2 70.7	61 36 % Retained 0.0 0.0 0.7 10.1 18.5	% Retained 0.0 0.0 0.7 10.8 29.3	
<b>Eactor (%)</b>	ess Factor:	66		68, 38	JMF Zone		Coars Work Sieve 2" 1.5" 1" 3/4" 1/2" 3/8"	eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 99.3 89.2 70.7 60.7	61 36 % Retained 0.0 0.0 0.7 10.1 18.5 10.0	% Retained           0.0           0.7           10.8           29.3           39.3	
<b>Eactor %</b>	ess Factor:	<b>66</b>		67.40	JMF Zone 75, 39 Gradation		Coars Work Sieve 2" 1.5" 1" 3/4" 1/2" 3/8" #4	eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 99.3 89.2 70.7 60.7 44.4	61 36 % Retained 0.0 0.0 0.7 10.1 18.5 10.0 16.3	% Retained           0.0           0.7           10.8           29.3           39.3           55.6	
<b>Eactor (%)</b>	45, 33	<b>66</b> 52, 41 52, 34 52, 34 56		68, 38	JMF Zone 75, 39 Gradation		Coars Work Sieve 2" 1.5" 1" 3/4" 1/2" 3/8" #4 #8	eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 99.3 89.2 70.7 60.7 44.4 35.9	61 36 % Retained 0.0 0.0 0.7 10.1 18.5 10.0 16.3 8.5	% Retained           0.0           0.7           10.8           29.3           39.3           55.6           64.1	
<b>Eactor (%)</b>	45, 44 45, 33 Operating Zone	<b>66</b> 52, 41 52, 34 52, 34 56		67.40	JMF Zone 75, 39 Gradation		Coars Work Sieve 2" 1.5" 1" 3/4" 1/2" 3/8" #4 #8 #16	eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 99.3 89.2 70.7 60.7 44.4 35.9 27.3	61 36 % Retained 0.0 0.0 0.7 10.1 18.5 10.0 16.3 8.5 8.6	% Retained           0.0           0.7           10.8           29.3           39.3           55.6           64.1           72.7	
<b>Eactor (%)</b>	45, 33	<b>66</b> 52, 41 52, 34 52, 34 56		67.40	JMF Zone 75, 39 Gradation		Coars Work Sieve 2" 1.5" 1" 3/4" 1/2" 3/8" #4 #8 #16 #30	eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 99.3 89.2 70.7 60.7 44.4 35.9 27.3 19.1	61 36 % <u>Retained</u> 0.0 0.0 0.7 10.1 18.5 10.0 16.3 8.5 8.6 8.2	% Retained           0.0           0.7           10.8           29.3           39.3           55.6           64.1           72.7           80.9	
<b>Coarsene</b> 45 40 40 35 35 40 40	45, 44 45, 33 Operating Zone	<b>66</b> 52, 41 52, 34 52, 34 56	• 60  F36	67.40	JMF Zone 75, 39 Gradation 75, 28		Coars Work Sieve 2" 1.5" 1" 3/4" 1/2" 3/8" #4 #8 #16	eness Factor: ability Factor: Cumulative % Passing 100.0 100.0 99.3 89.2 70.7 60.7 44.4 35.9 27.3	61 36 % Retained 0.0 0.0 0.7 10.1 18.5 10.0 16.3 8.5 8.6	% Retained           0.0           0.7           10.8           29.3           39.3           55.6           64.1           72.7	

Approved By:

PLANT # Sample Date		P-103		~	oncrete Grade		Contractor:				
Sample Date Dates Test R		10/24/2023	through	10/30/2023	oncrete Grade		MDOT No.:				
Agg. Class	Pit #	Source	through Weight (SSD)	ft <sup>3</sup>	Specific	%	MDOT NO				
			_	-	Gravity	Contribution					
6AA	58-003	Stoneco	1500	8.94	2.69	50.8					
26A	58-003	Stoneco	300 1150	1.79 6.95	2.69	10.2					
2NS	81-019	Pleasant Lake Total Wt	<b>2950</b>	6.95 <b>17.68</b>	2.65	39.0 100.0	< Verify this n	umber is 100%		SUP	ERIOR
Sieve		6AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained			Materials, LLC
2"	1	00.0	10	0.0	100.0	100.0	0.0	0.0		Suite 500	
1.5"	1	00.0	10	).0	100.0	100.0	0.0	0.0		Farmingto	n Hills, MI 48336
1"		00.0	10	0.0	100.0	100.0	0.0	0.0			
3/4"		84.8	10		100.0	92.3	7.7	7.7			
1/2"		40.4	99		100.0	69.6	22.7	30.4			
3/8"		17.7	88		100.0	56.9	12.7	43.1			above the 3/8" sieve.
#4		2.1	9.	-	98.3	40.4	16.6	59.6			qual 10% except max.,
#8 #16		1.3	3		85.6	34.4 27.4	6.0 6.9	65.6 72.6	,	00 and #200 sieves	
#16 #30		1.1 1.0	2		68.3 48.1	19.5	6.9 8.0	72.6 80.5			for each sieve except
#30 #50		1.0	1		23.5	9.9	9.6	90.1	-	00 and #200 sieves	o for the 3/4" sieve wher
#100		0.9	1.	-	4.9	2.6	7.3	97.4		e (nom. Max. 1.0")	
LBW		0.8	1		0.5	0.8	1.8	99.2	a 1.5 max. 312		aggregate is used.
Production G	Gradation	O Batch Plant Gra	dations 💿 Agg	regate Supplier Gra	dations	Adjusted WF	Intial Production	on Sample (IPS	<b>3</b> )		
	ess Factor:	66	Work	ability Factor:	34	36.9		eness Factor:	, 61		
				<b>,</b>				ability Factor:	36		
45	-				JMF Zone			Cumulative	%	Cumulative	
	45, 44				JIVIF ZONE		Sieve	% Passing	Retained	% Retained	
1		52, 41	40	67 40			2"	100.0	0.0	0.0	
-				68, 38	75, 39		1.5"	100.0	0.0	0.0	
<b>G</b> <sup>40</sup>					ľ		1"	99.3	0.7	0.7	
۶ <sup>40</sup>		1		🔲 🗖 an de settere d	Gradation		3/4"	89.2	10.1	10.8	
tor (%)			■ 60µ <b>β</b>	Production (	oradation						
actor (%)			∎ 60 <b>1</b> 8€	Production			1/2"	70.7	18.5	29.3	
/ Factor (%)		52, 34	■ 601B®				3/8"	60.7	10.0	39.3	
lity Factor (%) <sup>22</sup> <sup>26</sup> <sup>10</sup>	45, 33						3/8" #4	60.7 44.4	10.0 16.3	39.3 55.6	
ability Factor (%) <sup>20</sup> <sup>20</sup> <sup>20</sup> <sup>20</sup> <sup>20</sup> <sup>20</sup> <sup>20</sup> <sup>20</sup>	45, 33	52, 34		67, 32 67, 32			3/8" #4 #8	60.7 44.4 35.9	10.0 16.3 8.5	39.3 55.6 64.1	
rkability Factor (%) 00 22 20 00	Operating Zone	56,					3/8" #4 #8 #16	60.7 44.4 35.9 27.3	10.0 16.3 8.5 8.6	39.3 55.6 64.1 72.7	
<b>Norkability Factor (%)</b> 00 01 02 02 02 02 02 02 02 02 02 02		56,			75, 28		3/8" #4 #8 #16 #30	60.7 44.4 35.9 27.3 19.1	10.0 16.3 8.5 8.6 8.2	39.3 55.6 64.1 72.7 80.9	
ability Factor (%)	Operating Zone	56,					3/8" #4 #8 #16	60.7 44.4 35.9 27.3	10.0 16.3 8.5 8.6	39.3 55.6 64.1 72.7	

Approved BY: Mary P. Bal

PLANT		14					Contractor:				
Sample Date	-	10/23/23			concrete Grade:	DM, 4500HP					
Dates Test F	Represents:	10/24/2023	through	10/30/2023	-		MDOT No.:				
Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution				5	
6AA	58-003	Stoneco	1500	8.94	2.69	50.7					
26A	58-003	Stoneco	360	2.14	2.69	12.2				Ш	
2NS	19-04	Schlegel	1100	6.60	2.67	37.2				Bui	<b>Iders'</b>
		Total Wt	2960	17.68		100.0	< Verify this n	umber is 100%	1		rst With Builders'
Sieve	e	AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained		<u>Builders F</u> 30701 W. :	
2"	4	00.0	10		100.0	100.0	0.0	0.0		Suite 500	to while Ku.
2" 1.5"		00.0	100		100.0 100.0	100.0 100.0	0.0	0.0			n Hills, MI 48336
1.5		00.0	100		100.0	100.0	0.0	0.0			.,
3/4"		34.8	10		100.0	92.3	7.7	7.7			
1/2"		0.4	99		100.0	69.7	22.6	30.3			
3/8"	1	7.7	88	.0	100.0	56.8	12.9	43.2	*Maximum %	Retained must be	above the 3/8" sieve.
#4		2.1	9.	-	100.0	39.4	17.4	60.6	*Any two adja	cent sieves must e	qual 10% except max.,
#8		1.3	3.		91.3	35.0	4.4	65.0	nom. max., #1	00 and #200 sieves	
#16		1.1	2.		71.5	27.4	7.6	72.6	*% Retained	must be at least 4%	for each sieve except r
#30		1.0	2.		47.5	18.4	9.0	81.6	· · ·	00 and #200 sieves	
#50		1.0	1.		15.5	6.5	11.9	93.5			for the 3/4" sieve when
#100 LBW		0.9 0.8	1.		2.5 0.3	1.6 0.7	4.9 0.9	98.4 99.3	a 1.5" max. siz	e (nom. Max. 1.0")	aggregate is used.
Production G		Batch Plant Gra		regate Supplier Gra				on Sample (IPS	2)		
	ess Factor:	66	0 55	ability Factor:	35	37.5		eness Factor:	<b>63</b>	l	
Coarsen		00	WOIN	ability Factor.		37.5			36		
<sup>45</sup>	•					$\neg$	WORK	ability Factor: Cumulative	30 %	Cumulative	
	45, 44				JMF Zone		Sieve	% Passing	70 Retained	% Retained	
		52, 41					2"	100.0	0.0	0.0	
<del>2</del> <sup>40</sup>			21,40	68,40	75, 39		1.5"	100.0	0.0	0.0	
త 1				68, 38			1"	99.3	0.7	0.7	
J I			<b>6</b> 0, 36		Gradation		3/4"	89.0	10.3	11.0	
<b>5</b> 35			- 00, 30				1/2"	70.3	18.7	29.7	
Ш́ 1		52, 34	- <u>i</u>				3/8"	59.9	10.4	40.1	
<b>~</b> 1	45, 33						#4	41.9	18.0	58.1	
lity	1	_		68, 32 68, 31			#8	35.9	6.0	64.1	
<sup>30</sup>							#16 #30	27.8 18.9	8.2 8.8	72.2 81.1	
<sup>30</sup>	Operating Zone						# (1)	18.9	I 88	811	
Vorkability	Operating Zone Boundary				75, 28						
Workability Factor (%)					75, 28		#50	6.3	12.6	93.7	
		 	60 60	$rac{65}{65}$ Factor (%)	75, 28	80					

Approved By: Mart 1. Ball

PLANT i Sample Date		<b>12</b> 10/23/23		C	oncrete Grade	DM. 4500HP	Contractor:			
Dates Test R		10/24/2023	through	10/30/2023			MDOT No.:			
Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution				
6AA	71-47	Presque Isle	1450	8.87	2.62	49.9				
26A	71-47	Presque Isle	305	1.87	2.62	10.5				
2NS	63-115	Ray Rd	1150	6.95	2.65	39.6				GUI
		Total Wt	2905	17.69		100.0	< Verify this n	umber is 100%		SUF M A T
Sieve	(	6AA	26	6A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained		<u>Superior</u> 30701 W
2"	1	00.0	10	0.0	100.0	100.0	0.0	0.0		Suite 500
1.5"		00.0	10		100.0	100.0	0.0	0.0		Farmingto
1"		98.0		0.0	100.0	99.0	1.0	1.0		
3/4"		76.3	10		100.0	88.2	10.8	11.8		
1/2"		30.3	96		100.0	64.9	23.3	35.1		
3/8"		13.6	89		100.0	55.8	9.1	44.2	*Maximum %	Retained must b
#4		3.1	23		96.4	42.2	13.6	57.8		icent sieves mus
#8		2.2	5		80.5	33.6	8.6	66.4	-	00 and #200 sie\
#16		1.9	2		64.4	26.7	6.9	73.3		must be at least
#30		1.8	2		48.4	20.3	6.4	79.7	-	00 and #200 siev
#50		1.7	2		24.1	10.6	9.7	89.4		must be at least
#100 LBW		<u>1.6</u> 1.3	1		5.2 0.8	3.1 1.1	7.5 1.9	96.9 98.9	a 1.5" max. siz	e (nom. Max. 1.0
Production G	radation	Batch Plant Grav	-	regate Supplier Grad				on Sample (IPS	:)	
	ess Factor:	67		ability Factor:	34	36.1		eness Factor:	63	
45		01		lubility i uotori	0.			ability Factor:	36	
_	45, 44				JMF Zone		Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
10		52, 41	57, 40	68, 40			2"	100.0	0.0	0.0
<b>२</b> <sup>40</sup>				68, 38	75, 39		1.5"	100.0	0.0	0.0
<u>ိ</u>			i	00, 30			1"	99.3	0.7	0.7
Į Į			<b>6</b> 0, 36	IPS 📕 Poductio	n Gradation		3/4"	89.0	10.3	11.0
<b>e</b> 35							1/2"	70.3	18.7	29.7
<b>Ľ</b>		52, 34		i			3/8"	59.9	10.4	40.1
E I	45, 33		57.22				#4	41.9	18.0	58.1
Workability Factor (%)			,	68, 32 68, 31			#8	35.9	6.0	64.1
ž   [	Operating Zone	7					#16	27.8	8.2	72.2
ō	Boundary				75, 28		#30	18.9	8.8	81.1
>	Doanaary						#50	6.3	12.6	93.7

75

80

#100

LBW

1.7

1.0

4.6

0.7

98.3

99.0



aterials, LLC Mile Rd. Hills, MI 48336

ove the 3/8" sieve. ual 10% except max., or each sieve except max., or the 3/4" sieve when gregate is used.

PREPARED BY: SM, LLC Technical Service

50

55

 $\mathbf{Coarseness} \ \mathbf{Factor} \ \mathbf{(\%)}^{70}$ 

45

ActionLimits Boundary = - - - - -

25

40

#### Approved By: Mart 1. Ball

% ve ed	MATE	
ve	MATE	
ve	MATE	ERIOR
		ERIALS
		Materials, LLC 10 Mile Rd.
	Suite 500	
	Farmingtor	n Hills, MI 48336
		•
		•
(IPS)		
	٦	
	-1	
ve %	Cumulative	
5.0	5.0	
22.8	27.7	
11.8	39.6	
17.8	57.4	
6.6	64.0	
	70.5	
6.5		4
6.5 9.2	79.7	
6.5	79.7 90.5 96.6	
	*Any two ad nom. max., # *% Retained nom. max., # *% Retained a 1.5" max. si (IPS) ctor: 62 ctor: 62 ctor: 36 tive % ing Retained 0 0.0 0 0.0 00	*Maximum % Retained must be a *Any two adjacent sieves must e nom. max., #100 and #200 sieves *% Retained must be at least 4% nom. max., #100 and #200 sieves *% Retained must be at least 4% a 1.5" max. size (nom. Max. 1.0") (IPS) ctor: 62 ctor: 36 tive % Cumulative ing Retained % Retained 0 0.0 0.0 0.0 0

Approved By:

Mart 1. Ball

PLANT a		P-32		-			Contractor:				
Sample Date					oncrete Grade						
Dates Test R		10/24/2023	through	10/30/2023	Specific	%	MDOT No.:				
Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Gravity	Contribution					
6AA	71-47	Presque Isle	1355	8.29	2.62	46.6					
26A	71-47	Presque Isle	400	2.45	2.62	13.8					
2NS	95-013	Smelter Bay	1150	6.95	2.65	39.6				SUP	FRIOR
		Total Wt	2905	17.69		100.0	< Verify this n	umber is 100%	1	MATE	RIALS
Ciava		6AA	26	•	2NS	Cumulative	% Retained	Cumulative		Superior	Materials, LLC
Sieve		DAA	20	A	2115	% Passing	% Retained	% Retained			10 Mile Rd.
2"	1	00.0	10	0.0	100.0	100.0	0.0	0.0		Suite 500	
1.5"		00.0	10		100.0	100.0	0.0	0.0		Farmingto	n Hills, MI 48336
1"		96.7	10		100.0	98.5	1.5	1.5			
3/4"		74.9	10		100.0	88.3	10.2	11.7			
1/2"		32.0	96		100.0	67.9	20.4	32.1			
3/8"		14.4	89		100.0	58.7	9.2	41.3			above the 3/8" sieve.
#4		2.5	23		96.7	42.7	15.9	57.3			qual 10% except max.,
#8 #16		1.7 1.7	5		85.4 70.6	35.4 29.1	7.3 6.3	64.6 70.9		00 and #200 sieves	
#10		<u>1.7</u> 1.6	2		52.2	29.1	7.4	70.9		must be at least 4% 00 and #200 sieves	6 for each sieve except
#50		1.4	2		24.8	10.7	11.0	89.3			6 for the 3/4" sieve wher
#100		1.3	1		7.6	3.9	6.9	96.1		e (nom. Max. 1.0")	
LBW		1.0	1.	.7	1.7	1.4	2.5	98.6			
Production G	Gradation	O Batch Plant Gra	idations 💿 Agg	regate Supplier Gra	dations	Adjusted WF	Intial Production	on Sample (IPS	- S)		
Coarsene	ess Factor:	64	Work	ability Factor:	35	37.9		eness Factor:	62		
				•			Work	ability Factor:	36		
45					JMF Zone		0	Cumulative	%	Cumulative	
	45, 44				JIVIF 2011e		Sieve	% Passing	Retained	% Retained	
4.0		52, 41 <b>5</b> 6	i. 40	67,40			2"	100.0	0.0	0.0	
হ <sup>40</sup>				68 38	75, 39		1.5"	100.0	0.0	0.0	
<u>ຍ</u>			i	68, 38 Production Grad	dation		1"	100.0	0.0	0.0	
<u> </u>			■ 60,38E	s !			3/4"	95.0 72.3	5.0 22.8	5.0 27.7	
to			i	<b>i</b>			1/2" 3/8"	60.4	11.8	39.6	
<sup>35</sup>	$\rightarrow$	52, 34		!				42.6	17.8	57.4	
Ê Î	45 33						#8	36.0	6.6	64.0	
	45, 33	50	, 32	VI&∂4,			-	29.5			
			, 32	67 <sub>68,31</sub>			#16	29.5	0.5	70.5	
	45, 33 Operating Zone Boundary	56	, <del>32</del>	• <sup>7</sup> 68,31	75.28		#16 #30	29.5	6.5 9.2	70.5 79.7	
Workability	Operating Zone		, <del>32</del>	68,31	75, 28		#30 #50				
	Operating Zone	50 55	, 32	<sup>65</sup> Factor (%) <sup>70</sup>	75, 28	80	#30	20.3	9.2	79.7	

Approved By:

		P-35		-			Contractor:				
Sample Date		10/23/23	through		Concrete Grade						
Dates Test R <b>Agg. Class</b>	Pit #	Source	through Weight (SSD)	10/30/2023 ft <sup>3</sup>	Specific Gravity	% Contribution	MDOT No.:				
6AA	58-003	Stoneco	1500	8.94	2.69	50.8					
26A	58-003	Stoneco	300	1.79	2.69	10.2					
2NS	81-019	Pleasant Lake	1150	6.95	2.65	39.0				SUP	ERIOR
		Total Wt	2950	17.68		100.0	< Verify this n	umber is 100%		MATE	RIALS
Sieve		6AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained			<b>Materials, LLC</b> 10 Mile Rd.
2"	1	00.0	100	).0	100.0	100.0	0.0	0.0		Suite 500	
1.5"		00.0	100	-	100.0	100.0	0.0	0.0		Farmingto	n Hills, MI 48336
1"		00.0	100		100.0	100.0	0.0	0.0			
3/4" 1/2"		84.8	100		100.0	92.3	7.7 22.7	7.7			
3/8"		40.4 17.7	99 88		100.0 100.0	69.6 56.9	12.7	30.4 43.1	*Moving 0/	Potoinad must be	above the 3/8" sieve.
3/0 #4		2.1	9.	-	98.3	40.4	12.7	43.1 59.6			above the 3/8" sieve. qual 10% except max.,
#4		1.3	3.		85.6	34.4	6.0	65.6		00 and #200 sieves	•
#16		1.1	2.		68.3	27.4	6.9	72.6			6 for each sieve except
#30		1.0	2.		48.1	19.5	8.0	80.5		00 and #200 sieves	-
#50		1.0	1.	9	23.5	9.9	9.6	90.1	*% Retained	must be at least 4%	6 for the 3/4" sieve whe
#100		0.9	1.		4.9	2.6	7.3	97.4	a 1.5" max. siz	e (nom. Max. 1.0")	aggregate is used.
LBW		0.8	1.	7	0.5	0.8	1.8	99.2			
Production G	Gradation	O Batch Plant Gra	dations 💿 Aggr	egate Supplier Gra	dations	Adjusted WF	Intial Production	on Sample (IPS	5)		
Coarsene	ess Factor:	66	Work	ability Factor:	34	36.9	Coars	eness Factor:	61		
			<u> </u>	•			Work	ability Factor:	36		
45					JMF Zone		0	Cumulative	%	Cumulative	
1 1	45, 44				JIMF 2011e		Sieve	% Passing	Retained	% Retained	
		52, 41					2"	100.0	0.0	0.0	
् <sup>40</sup>		50,		68, 38	75, 39		1.5"	100.0	0.0	0.0	
<u>ව</u>					I		1"	99.3	0.7	0.7	
			■ 60, <sub>1</sub> 36	Production	Gradation		3/4"	89.1	10.2	10.9	
to				<b>!</b>			1/2"	70.5	18.6	29.5	
35 actor		52, 34	<u>i</u>	i			3/8" #4	60.5 44.1	10.0 16.4	39.5 55.9	
ц Ц	A5 22						#4 #8	35.6	8.5	55.9 64.4	
	45, 33		31				<i>m</i> <b>O</b>		0.0	07.7	
		56,	31	<b>67, 88</b> , 31			#16	27 7	79		
	Operating Zone	56,	31	<b>67, 89</b> , 31	75 00		#16 #30	27.7 20.6	7.9 7.1	72.3	
ility		56,	31	<b>67, 68</b> , 31	75, 28		#16 #30 #50	27.7 20.6 8.7	7.9 7.1 11.8		
	Operating Zone	56,		67, 28 31	75, 28	80	#30	20.6	7.1	72.3 79.4	

Approved By:

PLANT #		P-36		-			Contractor:				
Sample Date		10/23/23			concrete Grade:	DM, 4500HP					
Dates Test R	epresents:	10/24/2023	through	10/30/2023	Specific	0/	MDOT No.:				
Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution					
6AA	71-47	Presque Isle	1450	8.87	2.62	49.9					
26A	71-47	Presque Isle	305	1.87	2.62	10.5					
2NS	63-92	Grange Hall	1150	6.95	2.65	39.6				SIIP	ERIOR
		Total Wt	2905	17.69		100.0	< Verify this n	umber is 100%			RIALS
Ciaura		AA	26	•	0110	Cumulative		Cumulative		Superior	Materials, LLC
Sieve		DAA	20	А	2NS	% Passing	% Retained	% Retained			10 Mile Rd.
2"	1	00.0	10	) ()	100.0	100.0	0.0	0.0		Suite 500	
1.5"		00.0	10	-	100.0	100.0	0.0	0.0		Farmingto	n Hills, MI 48336
1"		98.0	10		100.0	99.0	1.0	1.0			
3/4"		76.3	10	-	100.0	88.2	10.8	11.8			
1/2"		30.3	96		100.0	64.9	23.3	35.1			
3/8"		13.6	89		100.0	55.8	9.1	44.2			above the 3/8" sieve.
#4		3.1	23		96.9	42.4	13.4	57.6			qual 10% except max.,
#8 #16		2.2 1.9	5.		83.6 69.2	34.8 28.6	7.6 6.2	65.2 71.4		00 and #200 sieves	
#10		1.9 1.8	2.		48.4	20.0	8.3	71.4		must be at least 4% 00 and #200 sieves	6 for each sieve except
#50		1.7	2.		21.6	9.6	10.7	90.4			6 for the 3/4" sieve whe
#100		1.6	1.		4.0	2.6	7.0	97.4		e (nom. Max. 1.0")	
LBW		1.3	1.	7	1.2	1.3	1.3	98.7			
Production G	Gradation	O Batch Plant Gra	idations 💿 Agg	egate Supplier Gra	dations	Adjusted WF	Intial Production	on Sample (IPS	- 5)		
Coarsene	ess Factor:	68	Work	ability Factor:	35	37.3		eness Factor:	63		
				ž			Work	ability Factor:	35		
45					JMF Zone			Cumulative	%	Cumulative	
- 4	45, 44				JIVIF ZOILE		Sieve	% Passing	Retained	% Retained	
		52, 41					2"	100.0	0.0	0.0	
			58, 39	<b>68, 38</b>	75, 39		1.5"	100.0	0.0	0.0	
<b>v</b> 1			ļ		ction Gradation		1"	99.1	0.9	0.9	
(%)			■ 60, 36				3/4"	90.3 69.2	8.8	9.7	
tor (%			i i	IPS			1/2" 3/8"	59.2 59.1	21.1 10.1	30.8 40.9	
actor (%	$\rightarrow$				•				17.3	40.9 58.2	
Eactor		52, 34		İ			#4	418	11.0		
Eactor	45, 33	52, 34					#4 #8	41.8 35.1			
Eactor		52, 34	58, 31	<b>68</b> ,31			#8	35.1	6.6	64.9 71.5	
Eactor	45, 33 Operating Zone Boundary	52, 34	58, 31							64.9	
bility Factor	Operating Zone	52, 34	58, 31	68,31	75, 28		#8 #16 #30 #50	35.1 28.5	6.6 6.6	64.9 71.5	
Eactor	Operating Zone	52, 34	· · · · · · · · · ·	<b>Factor (%)</b> <sup>70</sup>			#8 #16 #30	35.1 28.5 21.2	6.6 6.6 7.3	64.9 71.5 78.8	

Approved By: Mary 1. Ball

		P-38		~	an anata One de		Contractor:				
Sample Date		10/23/23		10/30/2023	oncrete Grade	DINI, 4500FF	MDOT No.:				
Dates Test R			through		Specific	%				-	
Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Gravity	Contribution					
6AA	58-003	Stoneco	1500	8.94	2.69	50.8					
26A	58-003	Stoneco	300	1.79	2.69	10.2					
2NS	81-019	Pleasant Lake Total Wt	1150 <b>2950</b>	6.95 <b>17.68</b>	2.65	39.0 100.0	< Vorific this p	umborio 100%			ERIOR
			2330	17.00		100.0	< Verify this n			MATE	FRIALS
Sieve		6AA	26	Δ	2NS	Cumulative	% Retained	Cumulative		Superior	Materials, LLC
0.010					2.10	% Passing	/o notaniou	% Retained		30701 W.	10 Mile Rd.
2"	1	00.0	100	).0	100.0	100.0	0.0	0.0		Suite 500	
1.5"		00.0	100		100.0	100.0	0.0	0.0		Farmingto	n Hills, MI 48336
1"		00.0	100		100.0	100.0	0.0	0.0			
3/4"		34.8	100		100.0	92.3	7.7	7.7			
1/2"		40.4	99		100.0	69.6	22.7	30.4			
3/8" #4		17.7 2.1	88		100.0 98.3	56.9 40.4	12.7 16.6	43.1 59.6			above the 3/8" sieve.
#4 #8		<u>2.1</u> 1.3	9.		98.3 85.6	40.4 34.4	6.0	59.6 65.6			qual 10% except max.
#0 #16		<u>1.3</u> 1.1	2.		68.3	27.4	6.9	72.6		00 and #200 sieves	6. 6 for each sieve except
#10		1.0	2.		48.1	19.5	8.0	80.5		00 and #200 sieves	•
#50		1.0	1.	-	23.5	9.9	9.6	90.1	,		" 6 for the 3/4" sieve whe
#100		0.9	1.		4.9	2.6	7.3	97.4		e (nom. Max. 1.0")	
LBW		0.8	1.	7	0.5	0.8	1.8	99.2			
Production G	Gradation	O Batch Plant Gra	dations 💿 Agg	regate Supplier Gra	dations	Adjusted WF	Intial Production	on Sample (IPS	5)		
Coarsene	ess Factor:	66	Worl	ability Factor:	34	36.9		eness Factor:	61		
				,	-			ability Factor:	36		
45					JMF Zone			Cumulative	%	Cumulative	
	45, 44				JIVIF ZOILE		Sieve	% Passing	Retained	% Retained	
		52, 41					2"	100.0	0.0	0.0	
		50,		68, 38	75, 39		1.5"	100.0	0.0	0.0	
~ 1							1"	99.3	0.7	0.7	
Š	1		■ 60,j <b></b> ĝ6	Production (	radation		3/4" 1/2"	89.1 70.5	10.2	10.9	
tor (%							1/2" 3/8"	70.5 60.5	18.6 10.0	29.5 39.5	
actor (%	A	<b></b>						44.1	16.4	55.9	
Ê Î	45.33	52, 34	<u> </u>								
ility Factor (%	45, 33		<b>1</b> 31				#8	35.6	8.5	64.4	
00 ability Factor (%		56,	31	<b>67, 89</b> , 31			#8 #16	35.6 27.7	8.5 7.9	64.4 72.3	
orkability Factor (%	45, 33 Operating Zone Boundary	56,	31	<b>67</b> , <b>89</b> , 31	75.28		#8 #16 #30		8.5 7.9 7.1	64.4 72.3 79.4	
Workability	Operating Zone	56,	31	<b>67, 63</b> , 31	75, 28		#16 #30 #50	27.7	7.9	72.3	
Workability Factor (%	Operating Zone	56,		67, eq. 31	75, 28	80	#16 #30	27.7 20.6	7.9 7.1	72.3 79.4	

Approved By: Mary 1. Ball

PLANT #		P-39					Contractor:				
Sample Date		10/23/23			concrete Grade	: DM, 4500HP					
Dates Test R	epresents:	10/24/2023	through	10/30/2023			MDOT No.:				
Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution					
6AA	71-47	Presque Isle	1505	9.21	2.62	51.8					
26A	71-47	Presque Isle	300	1.83	2.62	10.3					
2NS	44-051	Krake Willis Rd		6.65	2.65	37.9				SUD	ERIOR
		Total Wt	2905	17.69		100.0	< Verify this n	umber is 100%			RIALS
Sieve		6AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained		<b>Superior I</b> 30701 W. 2	<u>Materials, LLC</u> 10 Mile Rd.
2"		100.0	100	).0	100.0	100.0	0.0	0.0		Suite 500	
1.5"		100.0	100	-	100.0	100.0	0.0	0.0		Farmingtor	n Hills, MI 48336
1"		98.8	100		100.0	99.4	0.6	0.6			
3/4"		81.5	100		100.0	90.4	9.0	9.6			
1/2" 3/8"		38.6	96		100.0	67.8 59.3	22.6 8.5	32.2	*****	Detained 11	- h
3/8 #4		24.2 3.7	86 20		100.0 98.8	41.4	8.5 17.9	40.7 58.6			above the 3/8" sieve.
#4		2.1	4.1		98.8 84.6	33.6	7.9	66.4		00 and #200 sieves	qual 10% except max.,
#0		1.9	4.		68.9	27.3	6.3	72.7			for each sieve except
#10		1.8	1.	-	50.2	20.1	7.2	79.9		00 and #200 sieves	
#50		1.8	1.4		21.6	9.3	10.9	90.7			5 for the 3/4" sieve whe
#100		1.7	1.4		4.5	2.7	6.5	97.3		e (nom. Max. 1.0")	
LBW		1.4	1.	2	0.7	1.1	1.6	98.9			
Production G	radation	O Batch Plant Gra	dations 💿 Aggr	egate Supplier Gra	dations	Adjusted WF	Intial Production	on Sample (IPS	5)		
Coarsene	ss Factor:	61	Work	ability Factor:	34	36.1		eness Factor:	63		
					-			ability Factor:	36		
45	-				[			Cumulative	%	Cumulative	
- 4	5, 44				JMF Zone		Sieve	% Passing	Retained	% Retained	
-		52, 41					2"	100.0	0.0	0.0	
			58,40		75, 39		1.5"	100.0	0.0	0.0	
2				68, 38	I		1"	100.0	0.0	0.0	
<u> </u>			I ■ 60P360	luction Gradution			3/4"	89.7	10.3	10.3	
2							1/2"	70.3	19.4	29.7	
35 -		52, 34					3/8"	59.1	11.2	40.9	
/ Facto							#4 #8	42.8 35.5	16.3 7.3	57.2	
lity Facto	45, 33		1		, I				/ 3		
ability Facto			58, 22	688883	2					64.5	
rkability Facto	Operating Zone	2	58, 22	68833			#16	29.0	6.5	71.0	
Norkability Facto		2	50, 22	688832	2 75, 28		#16 #30	29.0 21.2	6.5 7.7	71.0 78.8	
ability Fa	Operating Zone	2		68,83			#16	29.0	6.5	71.0	

Approved By: Mart 1. Ball

PLANT		P-02				<b>BII</b> ( <b>FAA</b> ) <b>F</b>	Contractor:				
Sample Date		10/23/23			oncrete Grade	: DM, 4500HP					
Dates Test F	Represents:	10/24/2023	through	10/30/2023	<u> </u>	<i></i>	MDOT No.:				
Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific	%					
6AA	71-47	Presque Isle	1450	8.87	Gravity 2.62	Contribution 49.9					
26A	71-47	Presque Isle	305	1.87	2.62	10.5					
20/X	63-115	Ray Rd	1150	6.95	2.65	39.6					
		Total Wt		17.69		100.0	< Verify this n	umber is 100%	_	SUP MATE	ERIOR
Sieve	(	6AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained		<u>Superior</u> 30701 W. :	Materials, LLC
2"	1	00.0	10	0.0	100.0	100.0	0.0	0.0		Suite 500	
1.5"		00.0	-	0.0	100.0	100.0	0.0	0.0		Farmingto	n Hills, MI 48336
1"		98.0		0.0	100.0	99.0	1.0	1.0			
3/4"		76.3		0.0	100.0	88.2	10.8	11.8			
1/2"		30.3	96	6.9	100.0	64.9	23.3	35.1			
3/8"		13.6	89		100.0	55.8	9.1	44.2	*Maximum %	Retained must be	above the 3/8" sieve.
#4		3.1	23		96.4	42.2	13.6	57.8	*Any two adja	cent sieves must e	qual 10% except max.,
#8		2.2	5		80.5	33.6	8.6	66.4	,	00 and #200 sieves	
#16		1.9	2		64.4	26.7	6.9	73.3			for each sieve except
#30		1.8		.2	48.4	20.3	6.4	79.7	,	00 and #200 sieves	
#50 #100		<u>1.7</u> 1.6	2	.0	24.1 5.2	10.6 3.1	9.7 7.5	89.4 96.9			for the 3/4" sieve whe
LBW		1.3	1	-	0.8	3.1 1.1	1.9	98.9	a 1.5° max. siz	e (nom. Max. 1.0")	aggregate is used.
		Batch Plant Gra		regate SupplierGrad			-		•		
Production C		-	0.11					on Sample (IPS	,	I	
Coarsen	ess Factor:	67	work	ability Factor:	34	36.1		eness Factor:	63		
45 T						)	Work	ability Factor:	35	O and a time	
-	45, 44				JMF Zone		Sieve	Cumulative	% Deteined	Cumulative	
-		52, 41					2"	% Passing 100.0	Retained 0.0	% Retained 0.0	
<b>4</b> 0			58.39	68 39	75, 39		1.5"	100.0	0.0	0.0	
8				<b>68, 39</b> 68, 38	10, 39		1"	100.0	0.0	0.0	
2							3/4"	95.1	4.9	4.9	
<b>5</b> 35			■ 60, 36	i Froductio	on Gradation		1/2"	74.6	20.5	25.4	
<u>, o</u>	$\rightarrow$	52, 34	<u> </u>	i			3/8"	59.3	15.3	40.7	
-	45, 33			!			#4	42.1	17.2	57.9	
ity	1		58, 31	688,331			#8	35.1	7.1	64.9	
bility F							#16	29.2	5.9	70.8	
kability F	Operating Zone						#30	21.9	7.3	78.1	
/orkability F	Operating Zone Boundary				75, 28						
Worka	1 0				75, 28		#50	9.6	12.4	90.4	
Norkability F	1 0	50 55	5 60	<b>5 Factor (%)</b>	75, 28	80		9.6 2.4 0.9			

Approved By: