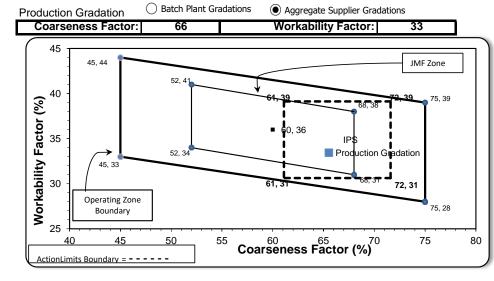
PLANT #: P-10		P-101					Contractor:		
Sample Date):	12/19/22			Concrete Grade:	P1M, 3500HP			
Dates Test R	epresents:	12/20/2022	through	12/26/2022			MDOT No.:		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution			
CA	71-47	Presque Isle	1070	6.54	2.62	34.9			
IA	71-47	Presque Isle	800	4.89	2.62	26.1			
2NS	75-051	Mid Michigan	1200	7.23	2.66	39.1			
		Total Wt	3070	18.67		100.0	< Verify this n	umber is 100%	_
Sieve		CA	1/	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"	1	100.0	100	0.0	100.0	100.0	0.0	0.0	1
1.5"		98.7	100	0.0	100.0	99.5	0.5	0.5	1
1"		47.5	100	0.0	100.0	81.7	17.8	18.3	1
3/4"		12.4	98	8.5	100.0	69.1	12.6	30.9	1
1/2"		3.0	83	3.2	100.0	61.8	7.3	38.2	
3/8"		2.0	63	8.7	100.0	56.4	5.4	43.6	*N
#4		1.6	17	' .3	97.7	43.3	13.1	56.7	*/
#8		1.4	4.	.5	81.3	33.4	9.8	66.6	noi
#16		1.4	2.	.7	65.7	26.9	6.6	73.1	*9
#30		1.3	2.	.3	49.4	20.4	6.5	79.6	noi
#50		1.2	2.	.1	26.5	11.3	9.0	88.7	*9
#100		1.1	1.		8.2	4.1	7.2	95.9	a 2
LBW		0.9	1.	.7	1.5	1.3	2.7	98.7	1



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*Maximum % Retained must be above the 3/8" sieve.
*Any two adjacent sieves must equal 10% except max., om. max., #100 and #200 sieves.
*% Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves.
*% Retained must be at least 8% for the 1" sieve when 2" max. size (nom. Max. 1.5") aggregate is used.



Initial Producti	on Sample (IPS	5)	_
Coars	eness Factor:	66	
Work	ability Factor:	35	
Sieve	Cumulative	%	Cumulative
Sleve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	99.6	0.4	0.4
1"	84.3	15.3	15.7
3/4"	74.8	9.6	25.2
1/2"	64.3	10.4	35.7
3/8"	56.8	7.5	43.2
#4	43.0	13.8	57.0
#8	34.9	8.1	65.1
#16	26.4	8.5	73.6
#30	19.9	6.5	80.1
#50	10.4	9.5	89.6
#100	3.4	7.0	96.6
LBW	1.2	2.2	98.8

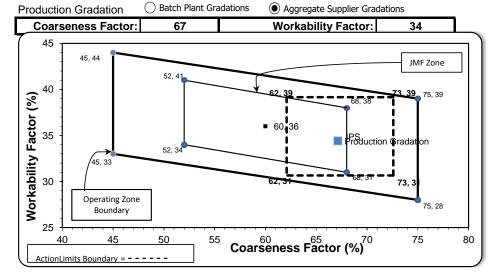


PLANT #:		P-102					Contractor:		
Sample Date	:	12/19/22			Concrete Grade:	P1M, 3500HP			
Dates Test Represents:		12/20/2022	through	12/26/2022			MDOT No.:		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific	%			
		Source	_		Gravity	Contribution			
CA	58-003	Stoneco	1370	8.16	2.69	43.9			
IA	58-003	Stoneco	550	3.28	2.69	17.6			
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.5			
		Total Wt	3120	18.70		100.0	< Verify this n	umber is 100%	_
Sieve		CA	LI I	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"		100.0	10	0.0	100.0	100.0	0.0	0.0	
1.5"		100.0	10	0.0	100.0	100.0	0.0	0.0	
1"		69.1	10	0.0	100.0	86.4	13.6	13.6	1
3/4"		54.5	10	0.0	100.0	80.0	6.4	20.0	1
1/2"		19.3	90).8	100.0	62.9	17.1	37.1	
3/8"		11.0	71	.9	100.0	56.0	7.0	44.0	*
#4		7.7	17	7.3	97.4	43.9	12.1	56.1	*.
#8		4.0	3.	.0	83.5	34.4	9.5	65.6	no
#16		3.0	1.	.9	67.0	27.4	7.0	72.6	*
#30		2.7	1.	.6	49.7	20.6	6.8	79.4	no
#50		2.4	1.	.4	24.2	10.6	10.0	89.4	*
#100		2.3	1.	.4	6.9	3.9	6.7	96.1	a 2
LBW		2.1			1.8	1.8	2.1	98.2	1



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*Maximum % Retained must be above the 3/8" sieve.
*Any two adjacent sieves must equal 10% except max., om. max., #100 and #200 sieves.
*% Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves.
*% Retained must be at least 8% for the 1" sieve when 2" max. size (nom. Max. 1.5") aggregate is used.



	Intial Production Sample (IPS)									
Coars	eness Factor:	67								
Work	ability Factor:	35								
Sieve	Cumulative	%	Cumulative							
Sleve	% Passing	Retained	% Retained							
2"	100.0	0.0	0.0							
1.5"	100.0	0.0	0.0							
1"	85.5	14.5	14.5							
3/4"	73.4	12.1	26.6							
1/2"	61.0	12.4	39.0							
3/8"	56.2	4.8	43.8							
#4	43.1	13.1	56.9							
#8	34.9	8.2	65.1							
#16	29.4	5.5	70.6							
#30	21.6	7.8	78.4							
#50	8.1	13.4	91.9							
#100	2.2	5.9	97.8							
LBW	1.4	0.8	98.6							

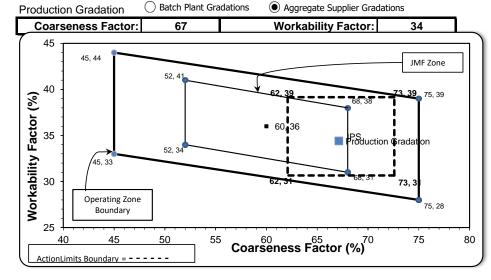
Approved By: Mart P. Ball

Sample Date:		P-103					Contractor:		
		12/19/22			Concrete Grade:	P1M, 3500HP			
		12/20/2022	through	12/26/2022			MDOT No.:		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution			
CA	58-003	Stoneco	1370	8.16	2.69	43.9			
IA	58-003	Stoneco	550	3.28	2.69	17.6			
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.5			
		Total Wt	3120	18.70		100.0	< Verify this number is 100%		
Sieve		CA IA		4	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"		100.0	10	0.0	100.0	100.0	0.0	0.0	1
1.5"	1	100.0	10	0.0	100.0	100.0	0.0	0.0	
1"		69.1	10	0.0	100.0	86.4	13.6	13.6	1
3/4"		54.5	10	0.0	100.0	80.0	6.4	20.0	1
1/2"		19.3	90).8	100.0	62.9	17.1	37.1	
3/8"		11.0	71	.9	100.0	56.0	7.0	44.0	*
#4		7.7	17	' .3	97.4	43.9	12.1	56.1	*
#8		4.0	3	.0	83.5	34.4	9.5	65.6	no
#16		3.0	1.	.9	67.0	27.4	7.0	72.6	*(
#30		2.7	1.	.6	49.7	20.6	6.8	79.4	no
#50		2.4	1.	.4	24.2	10.6	10.0	89.4	*(
#100		2.3	1.	.4	6.9	3.9	6.7	96.1	a 2
LBW		2.1	1.	.1	1.8	1.8	2.1	98.2	1



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*Maximum % Retained must be above the 3/8" sieve.
*Any two adjacent sieves must equal 10% except max., om. max., #100 and #200 sieves.
*% Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves.
*% Retained must be at least 8% for the 1" sieve when 2" max. size (nom. Max. 1.5") aggregate is used.



Sieve % Passing Retained % Retained 2" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1" 85.5 14.5 14.5 3/4" 73.4 12.1 26.6 1/2" 61.0 12.4 39.0 3/8" 56.2 4.8 43.8 #4 43.1 13.1 56.9 #8 34.9 8.2 65.1 #16 29.4 5.5 70.6 #30 21.6 7.8 78.4 #50 8.1 13.4 91.9	Intial Production Sample (IPS)									
Sieve Cumulative % Passing % Retained Cumulative % Retained 2" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1" 85.5 14.5 14.5 3/4" 73.4 12.1 26.6 1/2" 61.0 12.4 39.0 3/8" 56.2 4.8 43.8 #4 43.1 13.1 56.9 #8 34.9 8.2 65.1 #16 29.4 5.5 70.6 #30 21.6 7.8 78.4 #50 8.1 13.4 91.9	Coars	eness Factor:	67							
Sieve % Passing Retained % Retained 2" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1" 85.5 14.5 14.5 3/4" 73.4 12.1 26.6 1/2" 61.0 12.4 39.0 3/8" 56.2 4.8 43.8 #4 43.1 13.1 56.9 #8 34.9 8.2 65.1 #16 29.4 5.5 70.6 #30 21.6 7.8 78.4 #50 8.1 13.4 91.9	Work	ability Factor:	35							
% Passing Retained % Retained 2" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1" 85.5 14.5 14.5 3/4" 73.4 12.1 26.6 1/2" 61.0 12.4 39.0 3/8" 56.2 4.8 43.8 #4 43.1 13.1 56.9 #8 34.9 8.2 65.1 #16 29.4 5.5 70.6 #30 21.6 7.8 78.4 #50 8.1 13.4 91.9	Siovo	Cumulative	%	Cumulative						
1.5" 100.0 0.0 0.0 1" 85.5 14.5 14.5 3/4" 73.4 12.1 26.6 1/2" 61.0 12.4 39.0 3/8" 56.2 4.8 43.8 #4 43.1 13.1 56.9 #8 34.9 8.2 65.1 #16 29.4 5.5 70.6 #30 21.6 7.8 78.4 #50 8.1 13.4 91.9	Sieve	% Passing	Retained	% Retained						
1" 85.5 14.5 14.5 3/4" 73.4 12.1 26.6 1/2" 61.0 12.4 39.0 3/8" 56.2 4.8 43.8 #4 43.1 13.1 56.9 #8 34.9 8.2 65.1 #16 29.4 5.5 70.6 #30 21.6 7.8 78.4 #50 8.1 13.4 91.9	2"	100.0	0.0	0.0						
3/4" 73.4 12.1 26.6 1/2" 61.0 12.4 39.0 3/8" 56.2 4.8 43.8 #4 43.1 13.1 56.9 #8 34.9 8.2 65.1 #16 29.4 5.5 70.6 #30 21.6 7.8 78.4 #50 8.1 13.4 91.9	1.5"	100.0	0.0	0.0						
1/2" 61.0 12.4 39.0 3/8" 56.2 4.8 43.8 #4 43.1 13.1 56.9 #8 34.9 8.2 65.1 #16 29.4 5.5 70.6 #30 21.6 7.8 78.4 #50 8.1 13.4 91.9	1"	85.5	14.5	14.5						
3/8" 56.2 4.8 43.8 #4 43.1 13.1 56.9 #8 34.9 8.2 65.1 #16 29.4 5.5 70.6 #30 21.6 7.8 78.4 #50 8.1 13.4 91.9	3/4"	73.4	12.1	26.6						
#4 43.1 13.1 56.9 #8 34.9 8.2 65.1 #16 29.4 5.5 70.6 #30 21.6 7.8 78.4 #50 8.1 13.4 91.9	1/2"	61.0	12.4	39.0						
#8 34.9 8.2 65.1 #16 29.4 5.5 70.6 #30 21.6 7.8 78.4 #50 8.1 13.4 91.9	3/8"	56.2	4.8	43.8						
#16 29.4 5.5 70.6 #30 21.6 7.8 78.4 #50 8.1 13.4 91.9	#4	43.1	13.1	56.9						
#30 21.6 7.8 78.4 #50 8.1 13.4 91.9	#8	34.9	8.2	65.1						
#50 8.1 13.4 91.9	#16	29.4	5.5	70.6						
	#30	21.6	7.8	78.4						
<u>"100 00 50 070</u>	#50	8.1	13.4	91.9						
#100 2.2 5.9 97.8	#100	2.2	5.9	97.8						
LBW 1.4 0.8 98.6	LBW	1.4	0.8	98.6						

Approved BY: May 1. Ball

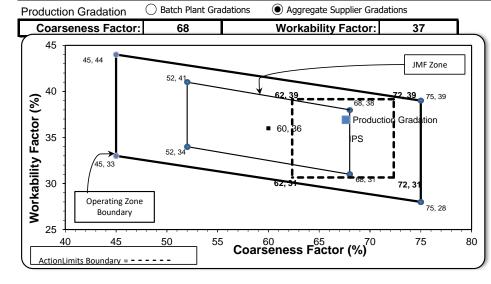
PLANT	#:	P-14					Contractor:		
Sample Date	:	12/19/22		(Concrete Grade	: P1M, 3500HP			
Dates Test R	epresents:	12/20/2022	through	12/26/2022			MDOT No.:		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution			
CA	58-003	Stoneco	1300	7.74	2.69	41.7			5
IA	58-003	Stoneco	620	3.69	2.69	19.9			
2NS	19-55	Schlegel	1200	7.20	2.67	38.5			Bui
		Total Wt	3120	18.64		100.0	< Verify this n	umber is 100%	RE
Sieve		CA	1/	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	Builders 30701 W.
2"	1	00.0	100	0.0	100.0	100.0	0.0	0.0	Suite 500
1.5"	1	00.0	100	0.0	100.0	100.0	0.0	0.0	Farmingto
1"	(69.1	100	0.0	100.0	87.1	12.9	12.9	
3/4"	Į	54.5	100	0.0	100.0	81.0	6.1	19.0	
1/2"		19.3	90).8	100.0	64.5	16.5	35.5	
3/8"		11.0	71	.9	100.0	57.3	7.2	42.7	*Maximum % Retained must be
#4		7.7	17	' .3	99.9	45.1	12.3	54.9	*Any two adjacent sieves must
#8		4.0	3.	.0	90.1	36.9	8.2	63.1	nom. max., #100 and #200 sieve
#16		3.0	1.9		69.4	28.3	8.6	71.7	*% Retained must be at least 49
#30		2.7	1.	.6	44.5	18.6	9.8	81.4	nom. max., #100 and #200 sieves
#50		2.4	1.	.4	14.3	6.8	11.8	93.2	*% Retained must be at least 8%
#100		2.3		.4	2.7	2.3	4.5	97.7	a 2" max. size (nom. Max. 1.5") a
LBW		2.1	1.	.1	0.2	1.2	1.1	98.8]



Builders Redi-Mix

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Maximum % Retained must be above the 3/8" sieve. Any two adjacent sieves must equal 10% except max., om. max., #100 and #200 sieves. % Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves. % Retained must be at least 8% for the 1" sieve when 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)									
Coars	seness Factor:	67							
Worl	kability Factor:	35							
Sieve	Cumulative	%	Cumulative						
Sieve	% Passing	Retained	% Retained						
2"	100.0	0.0	0.0						
1.5"	100.0	0.0	0.0						
1"	85.5	14.5	14.5						
3/4"	73.4	12.1	26.6						
1/2"	61.0	12.4	39.0						
3/8"	56.2	4.8	43.8						
#4	43.1	13.1	56.9						
#8	34.9	8.2	65.1						
#16	29.4	5.5	70.6						
#30	21.6	7.8	78.4						
#50	8.1	13.4	91.9						
#100	2.2	5.9	97.8						
LBW	1.4	0.8	98.6						
LBW	1.4	0.8	98.6						

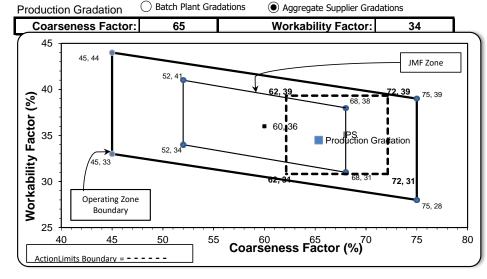
Approved By: Mary 1. Ball

PLANT #: Sample Date: Dates Test Represents:		P-12					Contractor:		
		12/19/22			Concrete Grade:	P1M, 3500HP			
		12/20/2022	through	12/26/2022			MDOT No.:		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution			
CA	71-47	Presque Isle	1020	6.24	2.62	33.2			
IA	71-47	Presque Isle	800	4.89	2.62	26.1			
2NS	63-115	Ray Rd	1250	7.56	2.65	40.7			
		Total Wt	3070	18.69		100.0	< Verify this n	umber is 100%	_
Sieve		CA	1/	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"	1	00.0	100	0.0	100.0	100.0	0.0	0.0	
1.5"	1	96.8	100	0.0	100.0	98.9	1.1	1.1	1
1"		44.4	100	0.0	100.0	81.5	17.4	18.5	
3/4"	:	22.1	98	.9	100.0	73.8	7.7	26.2	
1/2"		11.4	78	.2	100.0	64.9	8.9	35.1	
3/8"		7.5	53	.7	100.0	57.2	7.7	42.8	*N
#4		3.3	9.	9	96.3	42.9	14.3	57.1	*4
#8		2.6	3.	6	80.3	34.5	8.4	65.5	nor
#16		2.4	2.	6	64.9	27.9	6.6	72.1	*9
#30		2.2	2.	4	49.6	21.6	6.3	78.4	nor
#50		2.1	2.	2	25.9	11.8	9.7	88.2	*9
#100		1.9	2.		4.3	2.9	8.9	97.1	a 2
LBW		1.5	1.	7	0.6	1.2	1.7	98.8	1



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Maximum % Retained must be above the 3/8" sieve. Any two adjacent sieves must equal 10% except max., om. max., #100 and #200 sieves. % Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves. % Retained must be at least 8% for the 1" sieve when 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)								
Coars	eness Factor:	67						
Work	ability Factor:	35						
Sieve	Cumulative	%	Cumulative					
Sieve	% Passing	Retained	% Retained					
2"	100.0	0.0	0.0					
1.5"	99.6	0.4	0.4					
1"	83.9	15.7	16.1					
3/4"	74.0	9.8	26.0					
1/2"	63.7	10.3	36.3					
3/8"	56.4	7.3	43.6					
#4	43.0	13.4	57.0					
#8	35.1	7.9	64.9					
#16	29.0	6.1	71.0					
#30	20.9	8.0	79.1					
#50	8.1	12.8	91.9					
#100	1.6	6.5	98.4					
LBW	0.9	0.8	99.1					

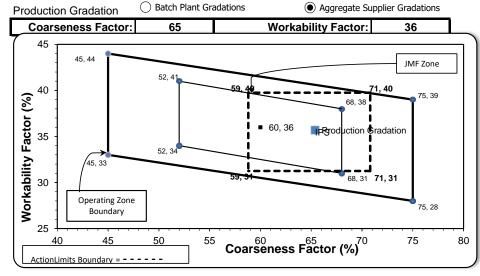
Approved By: Mart 1. Ball

PLANT #:		11					Contractor:		
Sample Date	:	12/19/22			Concrete Grade	: P1M, 3500HP			
Dates Test R	epresents:	12/20/2022	through	12/26/2022			MDOT No.:		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution			
CA	71-47	Presque Isle	970	5.93	2.62	31.6			
IA	71-47	Presque Isle	850	5.20	2.62	27.7			
2NS	95-013	Smelter Bay	1250	7.56	2.65	40.7			
		Total Wt	3070	18.69		100.0	< Verify this number is 100%		
Sieve		CA IA		A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"	1	00.0	100	0.0	100.0	100.0	0.0	0.0	1
1.5"		96.8	100	0.0	100.0	99.0	1.0	1.0	
1"		44.4	100	0.0	100.0	82.4	16.6	17.6	
3/4"	:	22.1	98	.9	100.0	75.1	7.4	24.9	
1/2"		11.4	78	.2	100.0	66.0	9.1	34.0	1
3/8"		7.5	53	.7	100.0	58.0	8.0	42.0	*
#4		3.3	9.	9	95.2	42.5	15.4	57.5	*
#8		2.6	3.	6	83.2	35.7	6.9	64.3	no
#16		2.4	2.	6	68.0	29.2	6.5	70.8	*
#30		2.2	2.	4	49.2	21.4	7.8	78.6	no
#50		2.1	2.	2	23.7	10.9	10.5	89.1	*% R
#100		1.9	2.	1	6.4	3.8	7.1	96.2	a 2
LBW		1.5	1.	7	1.1	1.4	2.4	98.6	1



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Maximum % Retained must be above the 3/8" sieve. Any two adjacent sieves must equal 10% except max., om. max., #100 and #200 sieves. % Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves. % Retained must be at least 8% for the 1" sieve when 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)								
Coars	eness Factor:	65						
Work	ability Factor:	36						
Sieve	Cumulative	%	Cumulative					
Sieve	% Passing	Retained	% Retained					
2"	100.0	0.0	0.0					
1.5"	99.0	0.6	0.6					
1"	84.0	15.3	16.0					
3/4"	73.5	10.5	26.5					
1/2"	65.2	8.2	34.8					
3/8"	58.2	7.1	41.8					
#4	44.1	14.1	55.9					
#8	35.5	8.6	64.5					
#16	29.1	6.4	70.9					
#30	21.9	7.3	78.1					
#50	9.6	12.2	90.4					
#100	2.6	7.1	97.4					
LBW	1.0	1.6	99.0					

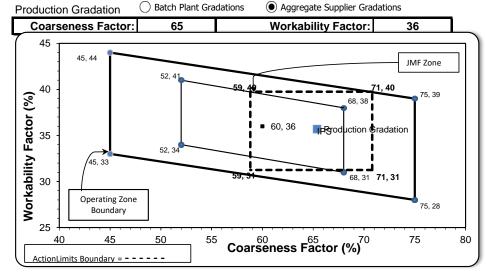
Approved By: Mart 1. Ball

PLANT #	#:	P-32					Contractor:		
Sample Date	:	12/19/22			Concrete Grade:	P1M, 3500HP			
Dates Test R	epresents:	12/20/2022	through	12/26/2022			MDOT No.:		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution			
CA	71-47	Presque Isle	970	5.93	2.62	31.6			
IA	71-47	Presque Isle	850	5.20	2.62	27.7			
2NS	95-013	Smelter Bay	1250	7.56	2.65	40.7			
		Total Wt	3070	18.69		100.0	< Verify this number is 100%		
Sieve		CA	1/	4	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"	1	00.0	100	0.0	100.0	100.0	0.0	0.0	1
1.5"	9	96.8	100	0.0	100.0	99.0	1.0	1.0	
1"		44.4	100	0.0	100.0	82.4	16.6	17.6	1
3/4"	:	22.1	98	3.9	100.0	75.1	7.4	24.9	1
1/2"		11.4	78	3.2	100.0	66.0	9.1	34.0	
3/8"		7.5	53	3.7	100.0	58.0	8.0	42.0	*
#4		3.3	9.	.9	95.2	42.5	15.4	57.5	*,
#8		2.6 3.6	3.6	83.2	35.7	6.9	64.3 no	noi	
#16		2.4	2.	.6	68.0	29.2	6.5	70.8	*(
#30		2.2	2.	.4	49.2	21.4	7.8	78.6	no
#50		2.1	2.	.2	23.7	10.9	10.5	89.1	*(
#100		1.9	2.		6.4	3.8	7.1	96.2	a 2
LBW		1.5	1.	.7	1.1	1.4	2.4	98.6	



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Maximum % Retained must be above the 3/8" sieve. Any two adjacent sieves must equal 10% except max., om. max., #100 and #200 sieves. % Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves. % Retained must be at least 8% for the 1" sieve when 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)								
Coars	eness Factor:	65						
Work	ability Factor:	36						
Sieve	Cumulative	%	Cumulative					
Sieve	% Passing	Retained	% Retained					
2"	100.0	0.0	0.0					
1.5"	99.0	0.6	0.6					
1"	84.0	15.3	16.0					
3/4"	73.5	10.5	26.5					
1/2"	65.2	8.2	34.8					
3/8"	58.2	7.1	41.8					
#4	44.1	14.1	55.9					
#8	35.5	8.6	64.5					
#16	29.1	6.4	70.9					
#30	21.9	7.3	78.1					
#50	9.6	12.2	90.4					
#100	2.6	7.1	97.4					
LBW	1.0	1.6	99.0					

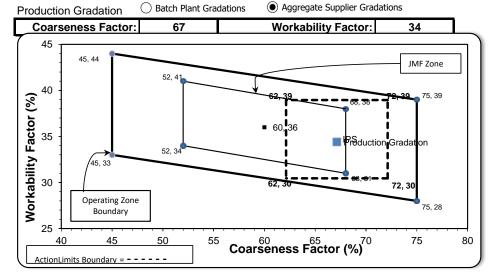
Approved By: Mart 1. Ball

PLANT #	#:	P-35					Contractor:		
Sample Date	:	12/19/22			Concrete Grade:	P1M, 3500HP			
Dates Test R	epresents:	12/20/2022	through	12/26/2022			MDOT No.:		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution			
CA	58-003	Stoneco	1370	8.16	2.69	43.9			
IA	58-003	Stoneco	550	3.28	2.69	17.6			
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.5			
		Total Wt	3120	18.70		100.0	< Verify this n	umber is 100%	
Sieve		CA	IA	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"		100.0	100	0.0	100.0	100.0	0.0	0.0	1
1.5"	1	100.0	100	0.0	100.0	100.0	0.0	0.0	1
1"		69.1	100	0.0	100.0	86.4	13.6	13.6	1
3/4"		54.5	100	0.0	100.0	80.0	6.4	20.0	1
1/2"		19.3	90	.8	100.0	62.9	17.1	37.1	
3/8"		11.0	71	.9	100.0	56.0	7.0	44.0	1
#4		7.7	17	.3	97.4	43.9	12.1	56.1	1
#8		4.0	3.	0	83.5	34.4	9.5	65.6	n
#16		3.0	1.	9	67.0	27.4	7.0	72.6	
#30		2.7	1.	6	49.7	20.6	6.8	79.4	n
#50		2.4	1.	4	24.2	10.6	10.0	89.4	
#100		2.3	1.	4	6.9	3.9	6.7	96.1	а
LBW		2.1	1.	1	1.8	1.8	2.1	98.2	1



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Maximum % Retained must be above the 3/8" sieve. Any two adjacent sieves must equal 10% except max., om. max., #100 and #200 sieves. % Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves. % Retained must be at least 8% for the 1" sieve when 2" max. size (nom. Max. 1.5") aggregate is used.



Coarseness Factor: 67 Workability Factor: 35 Sieve Cumulative % Passing % Cumulative % Retained 2" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1.2" 63.7 12.4 36.3 3/8" 56.2 7.5 43.6 #4 43.2 13.0 56.6 #8 34.7 8.5 65.3 #16 27.5 7.2 72.5	Intial Production Sample (IPS)								
Sieve Cumulative % Passing % Retained Cumulative % Retained 2" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1" 86.9 13.1 13.1 3/4" 76.1 10.8 23.9 1/2" 63.7 12.4 36.3 3/8" 56.2 7.5 43.8 #4 43.2 13.0 56.8 #8 34.7 8.5 65.3 #16 27.5 7.2 72.5									
Sieve % Passing Retained % Retained 2" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1" 86.9 13.1 13.1 3/4" 76.1 10.8 23.9 1/2" 63.7 12.4 36.3 3/8" 56.2 7.5 43.6 #4 43.2 13.0 56.8 #8 34.7 8.5 65.3 #16 27.5 7.2 72.5									
% Passing Retained % Retained 2" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1" 86.9 13.1 13.1 3/4" 76.1 10.8 23.9 1/2" 63.7 12.4 36.3 3/8" 56.2 7.5 43.8 #4 43.2 13.0 56.8 #8 34.7 8.5 65.3 #16 27.5 7.2 72.5	tive								
1.5" 100.0 0.0 0.0 1" 86.9 13.1 13.1 3/4" 76.1 10.8 23.9 1/2" 63.7 12.4 36.3 3/8" 56.2 7.5 43.8 #4 43.2 13.0 56.8 #8 34.7 8.5 65.3 #16 27.5 7.2 72.5	ned								
1" 86.9 13.1 13.1 3/4" 76.1 10.8 23.9 1/2" 63.7 12.4 36.3 3/8" 56.2 7.5 43.6 #4 43.2 13.0 56.8 #8 34.7 8.5 65.3 #16 27.5 7.2 72.5									
3/4" 76.1 10.8 23.9 1/2" 63.7 12.4 36.3 3/8" 56.2 7.5 43.6 #4 43.2 13.0 56.6 #8 34.7 8.5 65.3 #16 27.5 7.2 72.5									
1/2" 63.7 12.4 36.3 3/8" 56.2 7.5 43.8 #4 43.2 13.0 56.8 #8 34.7 8.5 65.3 #16 27.5 7.2 72.5									
3/8" 56.2 7.5 43.8 #4 43.2 13.0 56.8 #8 34.7 8.5 65.3 #16 27.5 7.2 72.5)								
#4 43.2 13.0 56.8 #8 34.7 8.5 65.3 #16 27.5 7.2 72.5									
#8 34.7 8.5 65.3 #16 27.5 7.2 72.5									
#16 27.5 7.2 72.5									
#30 20.6 7.0 79.4									
#50 9.0 11.6 91.0)								
#100 2.1 6.9 97.9)								
LBW 1.0 1.1 99.0)								

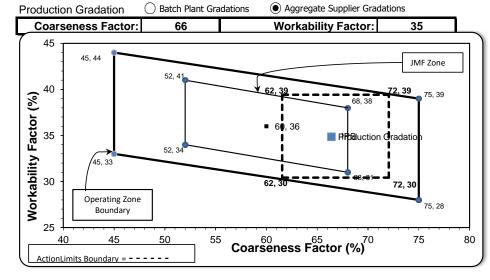
Approved By: Mart P. Ball

PLANT #	#:	P-36					Contractor:		
Sample Date	:	12/19/22			Concrete Grade:	P1M, 3500HP			
Dates Test R	epresents:	12/20/2022	through	12/26/2022			MDOT No.:		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution			
CA	71-47	Presque Isle	1000	6.12	2.62	32.6			
IA	71-47	Presque Isle	870	5.32	2.62	28.3			
2NS	63-92	Grange Hall	1200	7.26	2.65	39.1			
		Total Wt	3070	18.70		100.0	< Verify this n	umber is 100%	
Sieve		CA	IA	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"	1	00.0	100	0.0	100.0	100.0	0.0	0.0	1
1.5"		96.8	100	0.0	100.0	99.0	1.0	1.0	
1"		44.4	100	0.0	100.0	81.9	17.1	18.1	1
3/4"	:	22.1	98	.9	100.0	74.3	7.6	25.7	
1/2"		11.4	78	.2	100.0	65.0	9.4	35.0	
3/8"		7.5	53	.7	100.0	56.7	8.2	43.3	
#4		3.3	9.	9	97.6	42.0	14.7	58.0	
#8		2.6	3.	6	84.4	34.9	7.2	65.1	n
#16		2.4	2.	6	70.5	29.1	5.8	70.9	
#30		2.2	2.	4	53.4	22.3	6.8	77.7	n
#50		2.1	2.	2	24.4	10.8	11.4	89.2	
#100		1.9	2.	1	4.1	2.8	8.0	97.2	а
LBW		1.5	1.	7	0.8	1.3	1.5	98.7	1



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Maximum % Retained must be above the 3/8" sieve. Any two adjacent sieves must equal 10% except max., om. max., #100 and #200 sieves. % Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves. % Retained must be at least 8% for the 1" sieve when 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)									
Coars	eness Factor:	67							
Work	ability Factor:	35							
Sieve	Cumulative	%	Cumulative						
Sieve	% Passing	Retained	% Retained						
2"	100.0	0.0	0.0						
1.5"	100.0	0.0	0.0						
1"	85.0	15.0	15.0						
3/4"	72.1	12.9	27.9						
1/2"	64.5	7.6	35.5						
3/8"	56.5	8.0	43.5						
#4	42.7	13.8	57.3						
#8	34.9	7.8	65.1						
#16	29.0	5.9	71.0						
#30	21.0	8.0	79.0						
#50	8.2	12.8	91.8						
#100	1.6	6.5	98.4						
LBW	0.7	0.9	99.3						
		•							

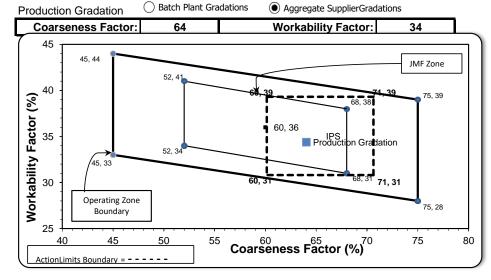
Approved By: Mart P. Ball

PLANT #	#:	P-39					Contractor:		
Sample Date	:	12/19/22			Concrete Grade:	P1M, 3500HP			
Dates Test R	epresents:	12/20/2022	through	12/26/2022			MDOT No.:		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution			
CA	71-47	Presque Isle	1020	6.24	2.62	33.2			
IA	71-47	Presque Isle	800	4.89	2.62	26.1			
2NS	44-051	Krake Willis Rd	1250	7.56	2.65	40.7			
		Total Wt	3070	18.69		100.0	< Verify this n	umber is 100%	
Sieve		CA	1/	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"		100.0	100	0.0	100.0	100.0	0.0	0.0	
1.5"		98.7	100	0.0	100.0	99.6	0.4	0.4	
1"		47.5	100	0.0	100.0	82.6	17.0	17.4	
3/4"		12.4	98	.5	100.0	70.5	12.1	29.5	1
1/2"		3.0	83	.2	100.0	63.4	7.1	36.6	
3/8"		2.0	63	.7	100.0	58.0	5.4	42.0	
#4		1.6	17	.3	96.2	44.2	13.8	55.8	
#8		1.4	4.	5	80.4	34.4	9.8	65.6	n
#16		1.4	2.	7	65.2	27.7	6.7	72.3	
#30		1.3	2.	3	49.4	21.1	6.6	78.9	n
#50		1.2	2.	1	24.3	10.8	10.3	89.2	
#100		1.1	1.		9.0	4.5	6.3	95.5	а
LBW		0.9	1.	7	0.8	1.1	3.5	98.9	1



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Maximum % Retained must be above the 3/8" sieve. Any two adjacent sieves must equal 10% except max., om. max., #100 and #200 sieves. % Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves. % Retained must be at least 8% for the 1" sieve when 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production	on Sample (IPS	5)	-
Coars	eness Factor:	65	
Work	ability Factor:	35	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	99.6	0.4	0.4
1"	83.9	15.7	16.1
3/4"	74.1	9.8	25.9
1/2"	64.3	9.7	35.7
3/8"	57.5	6.8	42.5
#4	44.5	13.1	55.5
#8	35.1	9.4	64.9
#16	27.9	7.2	72.1
#30	21.7	6.2	78.3
#50	12.6	9.1	87.4
#100	3.5	9.1	96.5
LBW	1.2	2.4	98.8

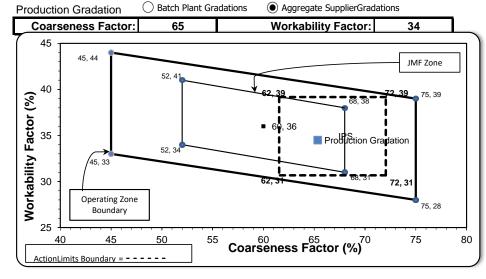
Approved By: Mart P. Ball

PLANT #	#:	P-O2					Contractor:		
Sample Date	:	12/19/22			Concrete Grade:	P1M, 3500HP			
Dates Test R	epresents:	12/20/2022	through	12/26/2022			MDOT No.:		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution			
CA	71-47	Presque Isle	1020	6.24	2.62	33.2			
IA	71-47	Presque Isle	800	4.89	2.62	26.1			
2NS	63-115	Ray Rd	1250	7.56	2.65	40.7			
		Total Wt	3070	18.69		100.0	< Verify this n	umber is 100%	
Sieve		CA	1/	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"	1	00.0	100	0.0	100.0	100.0	0.0	0.0	_
1.5"	ļ	96.8	100	0.0	100.0	98.9	1.1	1.1	
1"		44.4	100	0.0	100.0	81.5	17.4	18.5	
3/4"	1	22.1	98	5.9	100.0	73.8	7.7	26.2	
1/2"		11.4	78	5.2	100.0	64.9	8.9	35.1	
3/8"		7.5	53	5.7	100.0	57.2	7.7	42.8	
#4		3.3	9.	.9	96.3	42.9	14.3	57.1	
#8		2.6	3.	.6	80.3	34.5	8.4	65.5	n
#16		2.4	2.	.6	64.9	27.9	6.6	72.1	
#30		2.2	2.	.4	49.6	21.6	6.3	78.4	n
#50		2.1	2.	2	25.9	11.8	9.7	88.2	
#100		1.9	2.		4.3	2.9	8.9	97.1	а
LBW		1.5	1.	7	0.6	1.2	1.7	98.8	



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*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.



Intial Production	on Sample (IPS	5)	_
Coars	eness Factor:	67	
Work	ability Factor:	35	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	85.0	15.0	15.0
3/4"	72.3	12.7	27.7
1/2"	64.5	7.8	35.5
3/8"	56.5	8.0	43.5
#4	42.7	13.8	57.3
#8	34.9	7.8	65.1
#16	29.0	5.9	71.0
#30	21.0	8.0	79.0
#50	8.2	12.8	91.8
#100	1.6	6.5	98.4
LBW	0.7	0.9	99.3

Approved By: Mart 1. Ball