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LA Abrasion - AASHTO T96, ASTM C131

Date: 12/5/16

Project: 16-3480L

Client: Huppert Brother's Construction, Inc.
3509 54th Street West
Billings, Montana 59106

Description: Laurel Quarry Rock

Sample Data:

Source: Laurel Quarry

Location: Upper + Lower + Foot Stacker

Sample Date: 11/29/16

Sample By: FH/HBC

Sieve Size	Grading Options			
	A	B	C	D
1-1/2" - 1"	1250 ± 25			
1" - 3/4"	1250 ± 25			
3/4" - 1/2"	1250 ± 10	2500 ± 10		
1/2" - 3/8"	1250 ± 10	2500 ± 10		
3/8" - 1/4"			2500 ± 10	
1/4" - #4			2500 ± 10	
#4 - #8				5000 ± 10
Total Sample	5000 ± 10			
# Metal Spheres	12	11	8	6
Spheres' weight, g	5000 ± 25	4584 ± 25	3330 ± 20	2500 ± 15

Grading A

Spheres 12

Spheres Weight, g 4993.2

Sample Weight, g 4998.0

Rotations 500

#12 sieve before shake, g 1337.4

#12 sieve after shake, g 5698.3

Tumbled sample weight
retained on #12 sieve, g 4360.9

$$\text{Loss \%} = \frac{\text{Sample} - \#12\text{retained}}{\text{Sample}} * 100$$

Loss, % 12.7

Typical Specifications for Maximum % Loss:

Material Type	Agency				FAA Material Class
	WyDOT	MDOT	FP-14	FAA	
Asphalt Mix	40	40		40	P-401 plant mix
Concrete	40	40		50	P-501 conc pave
Cover / Chip Seal		30		50	P-610 struct conc
Surfacing B		40			
Surfacing A		50		45	P-209 base
Cement-Treated		50		45	P-208 uncrushed
Base Course	50	50		50	P-208 crushed
Riprap			50		


 Joe B. DeBar, PE
 Materials Lab Manager