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7. AUTHOR(S) Douglas Gransberg, Musharraf Zaman, and Bekir Aktas		8. PERFORMING ORGANIZATION REPORT	
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16. ABSTRACT This project compared the results of laboratory characterization of chip seal aggregate samples for Oklahoma DOT Divisions 1,2,3,5 and 6 with performance data from the Pavement Management System (PMS) database. Binder evaluation was limited to identifying the binder sources associated with each test section and analyzing its performance based on the PMS data. No trend was found from the PMS analysis of binder sources. The laboratory testing consisted of sieve analysis, Los Angeles Abrasion Testing, Micro-Deval Testing, and the use of the Aggregate Imaging System (AIMS) to quantify chip seal aggregate characteristics from each division. The output from the laboratory testing was compared with the PMS performance data using linear regression techniques to identify those combinations that displayed a discernable trend. The project's sample size was small and therefore, the researchers were unable to reach authoritative conclusions. Nevertheless, the analysis found a potential relationship between the LA test and PMS skid number (SN) data. It also identified trends with respect to the AIMS output, particularly between gradient angularity and SN. The Performance-based Uniformity Coefficient introduced by the North Carolina DOT was also evaluated and found to be a promising metric that may warrant future inclusion in the ODOT chip seal aggregate specifications.			
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