UTC Project Information	
Project Title	Quantifying Potential Impacts of Bioavailable Metals and Potential Dust Emissions from Highway-Related and Desert Sediments at Lordsburg Playa, New Mexico
University	University of Texas at El Paso
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Funding Source(s) and Amounts Provided (by each agency or organization)	CARTEEH, $57,380 University of Texas-El Paso (in-kind contribution), $32,979
Total Project Cost	$90,359
Agency ID or Contract Number	UTEP-01-13
Start and End Dates	04/19/2018 – 04/18/2019
Brief Description of Research Project	The goals of this project are to scope the presence of bioavailable metals and potential dust emissions from highway-related and desert sediments at Lordsburg Playa (dry lake bed), New Mexico, where Interstate 10 crosses a hotspot of dust storms and disruptions to transportation, and traffic crashes, are regularly experienced. We will determine the potential enhancement of bioavailable metals originating from transportation activities near the highway and impacting the local environment, as well as potential enhancement of bioavailable metals derived from non-transportation (mining) activities on the playa that could impact highway travelers and workers. We will determine relative exposures to bioavailable airborne metals from these activities and how they vary in space and time. The project will also assess the safety hazard to highway transportation at the Lordsburg Playa associated with dust from different areas under different environmental conditions, and will help assess how proposed mitigation plans would reduce this hazard. Field sample collection and site assessment, laboratory analysis, and numerical modeling will be used to achieve these goals, and the data and findings will be synthesized using GIS to inform stakeholders of potential health hazards from transportation- related vs. natural and mining-related dust and metal exposures at Lordsburg Playa, further informing efforts to mitigate transportation safety hazards at Lordsburg Playa. These results will be relevant to numerous other highways, especially in the Western US, where numerous routes cross dry lake beds and/or dust hotspots.

Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	 Photo: Illustration of transportation hazard. Image from New Mexico Department of Transportation public webcam of dust cloud crossing I-10 at Lordsburg Playa, March 15, 2018. Highway at far left, with vehicle barely visible through dust.
Impacts/Benefits of Implementation (actual, not anticipated)	
Web Links • Reports • Project website	