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Title: MONITORING SPRINGS IN THE MOJAVE DESERT USING LANDSAT TIME SERIES ANALYSIS

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Abstract: The purpose of this study, based on Landsat satellite data was to characterize variations and trends over 30 consecutive years (1985-2016) in perennial vegetation green cover at over 400 confirmed Mojave Desert spring locations. These springs were surveyed between in 2015 and 2016 on lands managed in California by the U.S. Bureau of Land Management (BLM) and on several land trusts within the Barstow, Needles, and Ridgecrest BLM Field Offices. The normalized difference vegetation index (NDVI) from July Landsat images was computed at each spring location and a trend model was first fit to the multi-year NDVI time series using least squares linear regression.

Key Words: Landsat, Time Series, Analysis