

MICROBIAL ECOLOGY OF THE OSIRIS-REX ASSEMBLY TEST AND LAUNCH ENVIRONMENT.

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Introduction: In order to further characterize the ATLO (Assembly Test and Launch Operations) environment of the OSIRIS-REx mission¹ We analyzed 17 witness foils and two blanks for the presence of bacterial, archaeal, fungal, and arthropod DNA. Though OSIRIS-REx is a Category II outbound, Category V unrestricted sample return mission with no bioburden requirement. Since its intended target, the asteroid Bennu, is likely to contain high concentrations of biologically available organic compounds it is useful to understand what types of organisms were present during ATLO. Although it is unlikely that any of the organisms detected will survive the multi-year journey to and from Bennu these data will provide important information about organisms present in aerospace clean rooms commonly used for a wide range of missions and the potential for recontamination of cleaned spacecraft during installation at the launch pad.