

**To:** Jackson, Ryan[jackson.ryan@epa.gov]  
**From:** Konkus, John  
**Sent:** Sat 9/2/2017 1:35:22 PM  
**Subject:** Background

This response is from July when I first flagged this grant. Below the response is the top line description. I'm working to get the full package.

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Oil and Gas project was congressionally mandated in the FY16 appropriations and will be funded using FY16 funds.

Best,

James

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James E. Gentry

Acting Deputy Director, National Center for Environmental Research

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202-564-4309

6/23/2017 8:39:24 AM New Award	Office of Research and Development Office of Research and Development Consolidated Research (CR)	Yale University Private University	9/1/2017 9:29:51 AM	Oil & Gas Activity & Drinking water vulnerability	This project will formulate a model that predicts the spatiotemporal variability in groundwater vulnerability to unconventional oil and gas-extraction associated chemicals. The resultant vulnerability index model will more accurately estimate susceptibility to contaminants in drinking water. The study will culminate with a case-control study of infants to determine whether exposure to unconventional oil and
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gas contaminants, as estimated by the vulnerability index model, is associated with adverse birth outcomes (low birthweight, preterm birth, birth defects).