

Ohio State Quarterly RPPR

Department of Energy, National Energy and Technology Laboratory

Award number DE-FE0024357

Utica Shale Energy and Environmental Laboratory

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The Ohio State University
1960 Kenny Road
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Project Period: 10/01/2014 – 07/31/2019

Quarterly Reporting Period: 01/01/2017-03/31/2017

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2. Accomplishments

a.) Accomplishments achieved

i. Site Selection

A draft MOA was negotiated and signed with **Energy Corporation of America (ECA)** on 29 November 2016 for a proposed study site located on the Meadows well pad in Greene County, Pennsylvania. There are six Marcellus wells on the pad that will be used to drill the vertical well down to the Utica, and the lateral. Discussions and meetings were held internally and with ECA and NETL-DOE to refine the scope and cost of the USEEL project during the first quarter. Emphasis was on the technological challenges that will be encountered in the development of the deep Utica/Point Pleasant oil and gas formations. The final sub award agreement between The Ohio State University and ECA was signed and submitted to NETL on 02/21/2017.

ii. Administrative/Planning

- On 01/19/2017, a Modified Work Plan and Revised Budget for the Utica Shale Energy and Environmental Laboratory (USEEL) were submitted to NETL. All questions/comments on the OSU/USEEL SF-424A budget and OMB 1910-5167 budget justification forms were addressed.
- OSU requested and received ECA, WVU, HARC, and Texas A&M budget and OMB 1910-5167 forms, which were submitted to NETL; all questions/comments were addressed.
- The Assistance Agreement, Modification 0006 to the Cooperative Agreement, effective 01/31/2017 and conditionally extending Budget Period 1 through 03/31/2017, was received 02/01/2017.
- Revisions to the Statement of Project Objectives (SOPO) were submitted to NETL on 02/10/2017, and comments were received from Mr. Joseph B. Renk III, Program Manager, on 02/15/2017.
- Discussions were initiated with HARC, WVU, and Texas A&M sub recipients to refine USEEL tasks/subtasks as defined in the modified work plan and revised SOPO.
- An approved NEPA Categorical Exclusion (CX) for the new proposed site was received 02/16/2017.
- Continued compilation and presentation of ArcGIS Excel, raster, and shape files in support of on-going efforts to define the new project site located on the ECA Meadows pad, Greene County, Pennsylvania. Specifically, this included the review and downloading of hydraulic fracturing (UOG) databases from the Pennsylvania Department of Environmental Protection (PA DEP).

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- In collaboration with the College of Arts and Sciences ASC Technology Services at OSU, revisions were initiated to the USEEL website and data portal to support the new project site location and revised scope of work.
- Dr. Jeffrey Daniels retired from The Ohio State University and resigned as PI and Director of USEEL, effective 04/01/2017. Dr. David Cole was appointed PI and Director of USEEL, effective 04/01/2017.

iii. Science and Technology

- Surface Water/Sediment
 - Initiated discussions with OSU CoPIs, ECA, and sub recipients to define surface water/sediment studies at the new project site location.
- Groundwater
 - Initiated discussions with OSU CoPIs, ECA, and sub recipients to define groundwater studies at the new project site location.
- Socioeconomic & Community Outreach Studies
 - Initiated discussions with OSU CoPIs, ECA, and sub recipients to define possible outreach studies at the new project site location.
- Biological Sampling/Habitat Fragmentation
 - Nothing to report
- Flow back Analysis/Filtration
 - Nothing to report
- Subsurface
 - OSU CoPIs, ECA, and sub recipients continued discussions and preparation of a downhole experimental plan to define subsurface studies at the new project site location that will include sampling, geophysical well logging, and fiber optic experiments (DAS and DTS).

b.) Opportunities for training and professional development. The five original Graduate Research Assistant (GRA) appointments were terminated on 12/31/2016. Four new GRA positions are currently being evaluated and research topics defined that will support the new project site location and emphasis on subsurface investigations.

c.) Dissemination of results to communities of interest. Nothing to report.

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d.) Plans to accomplish goals/milestones during next reporting period. To be developed.

3. Products

a.) Publications, conferences papers, and presentations. Nothing to report.

b.) Website(s) or other Internet site(s). Nothing to report.

c.) Technologies or techniques. Nothing to report.

d.) Inventions, patent applications, and/or licenses. Nothing to report.

e.) Other products. (See section 2.a.ii - Administrative/Planning.)

4. Participants & Other Collaborating Organizations

a.) Individuals who have worked on the project.

Name: Dr. Jeffrey Daniels

Project Role: Director

Nearest person month worked: 2 (cost share)

Contribution to project: Dr. Daniels has been involved in overall project management, planning, and administration.

Foreign collaboration: No

Name: Dr. Gerald Allen

Project Role: Science Operations Manager

Nearest person month worked: 3

Contribution to the project: Dr. Allen has been involved in project management, planning, and administration; and collection and compilation of GIS data for site-specific and regional study area delineation and evaluation.

Foreign collaboration: No

5. Impact – Nothing to report.

6. Changes/Problems

a.) Changes in approach and reasons for change. Nothing to report.

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b.) Actual or anticipated problems or delays and resolution. The delay in site and operator selection has resulted in rescheduling USEEL office and field activities. With the selection of ECA as the operator and their Meadows pad as the project site location, the USEEL project scope is being refined to emphasize the technological challenges that will be encountered in the development of the deep Utica/Point Pleasant oil and gas formations. Any changes in the cost, scope, and schedule of the USEEL project will be in accordance with the original USEEL grant and/or subsequent amendments.

c.) Changes that have significant impact on expenditures. The delay in site and operator selection resulted in fewer personnel and project expenses being incurred in the first quarter of FY2017.

d.) Significant changes in use or care of human subjects, vertebrate animals, and/or Biohazards. Nothing to report.

e.) Change of primary performance site location from that originally proposed. (See section 2.a.i. – Administrative/Planning.)

7. Special Reporting Requirements – Nothing to report.

8. Budgetary Information – Financial report sent under separate cover.