

DOE Award No.: FWP 65213

Quarterly Research Performance Progress Report

(Period Ending 09/30/2017)

Kinetic Parameters for the Exchange of Hydrate Formers

Project Period (07/01/2013 to open)

Submitted by:

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U.S. DEPARTMENT OF

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**NATIONAL ENERGY
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Office of Fossil Energy

RESEARCH PERFORMANCE PROGRESS REPORT

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ACCOMPLISHMENTS:

BP5-Task 13.0 Nitrogen Injection (KIGAM-funded, Separate, Coordinated PNNL Project #68908)

This task has not started, by the KIGAM client is looking for a progress report by the end of the calendar year. We anticipate starting the work early November, to make reportable progress by the end of December.

BP5-Task 14.0 Geomechanics Implementation and Verification

This task has not started, but the implementation will begin with the start of the BP5-Task 13.0 work, as geomechanics is needed to complete the nitrogen injection simulations.

BP5-Task 15.0 International Hydrate Code Comparison

This task was started during the later half of September. Participants have been identified and a time for the teleconferences, has additionally been identified that's agreeable to participants in Japan, Korea, USA, and Germany. A kickoff teleconference has been scheduled and a teleconference was held with the NETL EDX team to demonstrate the system capabilities. The agenda for the first teleconference will include discussions about the EDX system, with a demonstration, discussions about the first two problems, and a schedule for the participants to present their codes.

MILESTONES:

Milestone Title	Milestone Description	Planned Completion Date	Actual Completion Date	Status / Results
Nitrogen Injection (KIGAM-funded, Separate, Coordinated	Conduct a series of numerical simulations using its STOMP-HYDT-KE simulator to assess the feasibility of the nitrogen injection	6/30/2018		Not started

PNNL Project #68908)	technology for production natural gas.			
Geomechanics Implementation and Verification	Develop algorithms for its STOMP-HYDT-KE simulator for computing the geomechanical properties as a function of hydrate saturation.	3/31/2018		Not started
IGHCCS2: Problem Definition	Initial Problem Set Drafted and Participants Identified for the 2nd International Hydrate Code Comparison Study.	9/30/2017		Started mid September 2017, participants identified, and first teleconference set for Nov. 9, 2017.
IGHCCS2: Problem Issue	Initial Problem Set Issued for the 2nd International Hydrate Code Comparison Study.	12/31/2017		Not started
IGHCCS2: Problem Submission	Initial Problem Set Submission for the 2nd International Hydrate Code Comparison Study.	6/30/2018		Not started

PRODUCTS:

No publications nor presentations were released this quarter.

IMPACT:

No significant impacts occurred this quarter.

CHANGES/PROBLEMS:

The IGHCCS2 started later than anticipated, but the study current has about 45 participants from three continents, indicating strong interest in the project.

SPECIAL REPORTING REQUIREMENTS:

No special reporting requirments occurred during this quarter.

BUDGETARY INFORMATION:

Actual Cost (this quarter)	Actual Cost (cumulative for BP)	Funds available (for the BP)	Balance of unspent funds (for the BP)	Actual Cost (cumulative for the full FWP)	Funds available (for the full FWP)	Balance of unspent funds (for the full FWP)
\$2825	\$2825	\$100,000	\$97,175	\$239,845	\$370,000	\$130,155

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