

Title (en)
NON-HYDRAULIC FRACTURING AND COLD FOAM PROPPANT DELIVERY SYSTEMS, METHODS, AND PROCESSES

Title (de)
SYSTEME, VERFAHREN UND PROZESSE FÜR NICHT-HYDRAULISCHE FRAKTURIERUNG UND AUSGABE EINES KALTSCHAUMSTÜTZMITTELS

Title (fr)
SYSTÈMES, PROCÉDÉS ET PROCESSUS DE FRACTURATION NON-HYDRAULIQUE ET DE DISTRIBUTION D'AGENT DE SOUTÈNEMENT À MOUSSE FROIDE

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Application
EP 14782881 A 20140325

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Abstract (en)
[origin: WO2014168751A2] Methods and systems of fracturing subterranean formations are provided comprising pumping metacritical phase natural gas into a subterranean formation to create or extend one or more fissures in the formation. Methods and systems may further comprise maintaining or increasing pressure of the metacritical phase natural gas in the formation by pumping more metacritical phase natural gas into the fissures to hold the fissures open. Methods and systems may further comprise delivering a proppant into the subterranean formation. Disclosed methods and systems may be used to extract hydrocarbons from subterranean formations without the use of liquids. Methods and systems of delivering proppant comprise providing a non-aqueous liquid, adding a surfactant to the non-aqueous liquid, adding a proppant to the non-aqueous liquid to form a non-aqueous liquid, surfactant and proppant stream, pumping to pressure the non-aqueous liquid, surfactant and proppant stream, using pressurized natural gas to energize the non-aqueous liquid, surfactant and proppant stream, and delivering the energized non-aqueous liquid, surfactant and proppant stream into a subterranean formation. Methods of recovering proppant delivery liquid are also provided.

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