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(54) **METHOD AND SYSTEM FOR PREDICTING A DRILL STRING STUCK PIPE EVENT**

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USPC **175/40**; 702/9

(58) **Field of Classification Search**

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See application file for complete search history.

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(57) **ABSTRACT**

Predicting a drill string stuck pipe event. At least some of the illustrative embodiments are methods including: receiving a plurality of drilling parameters from a drilling operation; applying the plurality of drilling parameters to an ensemble prediction model comprising at least three machine-learning algorithms operated in parallel, each machine-learning algorithm predicting a probability of occurrence of a future stuck pipe event based on at least one of the plurality of drilling parameters, the ensemble prediction model creates a combined probability based on the probability of occurrence of the future stuck pipe event of each machine-learning algorithm; and providing an indication of a likelihood of a future stuck pipe event to a drilling operator, the indication based on the combined probability.

29 Claims, 8 Drawing Sheets