



U. S. Chemical Safety and Hazard Investigation Board RECOMMENDATIONS STATUS CHANGE SUMMARY

Report:	Gas Well Blowout and Fire at Pryor Trust Well 1H-9
Recommendation Number:	2018-01-I-OK-R10
Date Issued:	June 12, 2019
Recipient:	Patterson-UTI Drilling Company, LLC (Pat-UTI)
New Status:	Closed – Acceptable Action
Date of Status Change:	July 29, 2020

Recommendation Text:

Develop and implement a policy requiring that flow checks be documented, either electronically or with a paper record. At a minimum the documentation will require the reporting of:

- 1) Operation during which flow check was performed*
- 2) Method of performing flow check*
- 3) Length of time flow check was performed*
- 4) Result of flow check*

Require that the proper authorities (e.g., driller, company man, rig manager) sign or approve the flow check documentation after performing the flow check and before resuming operations. Keep the flow check documentation as part of the well file.

Board Status Change Decision:

A. Rationale for Recommendation

On January 22, 2018, a blowout and rig fire occurred at Pryor Trust 0718 gas well number 1H-9, located in Pittsburg County, Oklahoma. The fire resulted in the fatalities of five workers, who were inside the driller's cabin on the rig floor. They died from thermal burn injuries and smoke and soot inhalation. The blowout occurred approximately three-and-a-half hours after removing drill pipe ("tripping") out of the well. The cause of the blowout and rig fire was the failure of both the primary barrier—hydrostatic pressure produced by drilling mud—and the secondary barrier—human detection of influx and activation of the blowout preventer—which were intended to be in place to prevent a blowout.

As a part of its investigation, the U.S. Chemical Safety and Hazard Investigation Board (CSB) examined the well drilling practices and procedures of the Patterson-UTI Drilling Company, LLC (Pat-UTI), a land-based drilling company that was contracted to conduct drilling and well control operations at the Pryor Trust well. The CSB identified issues with Pat-UTI's rig tripping procedures, alarm philosophy, well control practices, flow checks and the effectiveness of the company's safety management system. Consequently, the Board issued five recommendations (e.g., CSB Recommendation Nos. 2018-01-I-OK-R7 through R11) to Pat-UTI to address these

issues. This status change summary only addresses the CSB recommendation pertaining to flow checks (e.g., 2018-01-I-OK-R10).

B. Response to the Recommendation

In March of 2020, Pat-UTI reported to the CSB that it had revised its well control and tripping procedures to conduct, report and approve flow checks as specified in the CSB recommendation and records of flow checks conducted are being retained in the well files. Relevant documents related to the above were provided for the CSB to review.

C. Board Analysis and Decision

Based on Pat-UTI's response above, its revised well control and tripping procedures pertaining to conducting, reporting and approving flow checks satisfy the intent of the CSB recommendation, so the Board voted to change the status of CSB Recommendation No. 2018-01-I-OK-R10 to: "Closed—Acceptable Action."