WHAT HAPPENED:
During tripping operations, a member of the drill crew - while tying slips - was caught between a moving hydratong and a pipe stump in the rotary. The IP sustained only minor injuries, however, there was significant potential for much greater serious injury, or fatality (SIF).

CONTRIBUTING FACTORS:
• Engineering design allowed for multiple pieces of equipment to be operated at the same time
• Complex task dependent on human performance
• Personnel in red zone while hydratong was moving to well center
• No proximity sensors or alarms to indicate, or stop equipment, if personnel are in the line of fire
• A significant change to the existing process/method of work had not been adequately assessed.

LESSONS LEARNED:
1. All procedures and Job Safety Analysis (JSA’s) were reviewed to ensure that safe locations for personnel are identified prior to moving equipment.
2. Evaluation into the practicality of installing audible or flashing alarm to indicate travelling equipment is moving to be performed.
3. Review of practices for tying slips in line with industry best practice to be performed.
   4. Commissioned the OEM to develop a software change that includes an engineered stop in the hydrating travel (1 meter from well center) requiring a confirmation from the Operator prior to proceeding.
5. Investigate automated red zone management systems for future installation.

The photos on the following page are taken from a video reconstruction of the incident. They show (1) the IP tying slips while the remaining crew move out of red zone as per procedure, (2) the view from the drillers chair, with hydratong and hydrarackers being able to be moved at the same time with different joysticks, and (3) the IP caught between casing and hydratong.
A Safety Alert can consist of any type of health, safety & environment (HSE) notification or Near Miss/Near Hit alert. Proactive Alerts on jobs well done are also encouraged.