JARS FIRED WITH DRILL STRING IN SLIPS

WHAT HAPPENED:

The drill crew was tripping 4” drill pipe in the hole with a whipstock assembly at 1,824 feet. With the drill string suspended in the slips in the rotary and the elevators latched onto the drill pipe, the jars in the hole fired unexpectedly. The drill string “jumped” in the slips several times due to the recoil effect of the drill string. Each recoil resulted in the drill string setting lower in the slips until the elevators caught the load and prevented the drill pipe from possibly falling into the hole.

WHAT CAUSED IT:

Upon pulling out of the hole to inspect the whipstock assembly, it was discovered that two (2) test plug O-rings snagged around the whipstock assembly and mill. It is believed the O-rings could have caused enough drag while tripping in the hole to collapse and cock the jars. The jars in use were the bumper type and are much easier to activate than normal drilling jars. With the jars cocked there was sufficient weight below the jars to enable the jars to fire.

CORRECTIVE ACTIONS: To address this incident, this company did the following:

1. Discuss incident with drill crews and identify risks associated with the use of jars.
2. Revise relevant JSAs to consider the use of jars and the associated risks.
3. Drag while tripping must be monitored to ensure jars are not inadvertently cocked. Any debris in the well (O-rings, tong dies, etc.) or tight hole could result in the jars cocking and firing unexpectedly.

The Corrective Actions stated in this alert are one company’s attempts to address the incident, and do not necessarily reflect the position of IADC or the IADC HSE Committee.