SAFETY FEEDBACK NOTICE 8-2003

RIG FATALITY

Introduction

Recently in the Total affiliate in Nigeria there was a fatality on a contracted rig. This Feedback Notice highlights the main issue and lessons learned concerning this sad event. The lessons are applicable to other disciplines as well.

Events

The accident happened at 00.25hrs. The Assistant Driller (AD) had gone to the main pipe deck by himself to look for some slings. Then a roustabout heard a shout and saw the AD lying on a subsea transportation skid. The AD was found to be conscious but with severe head injuries. Alongside him was a "Samson Post" which had fallen from its vertical position. (see photo 1).

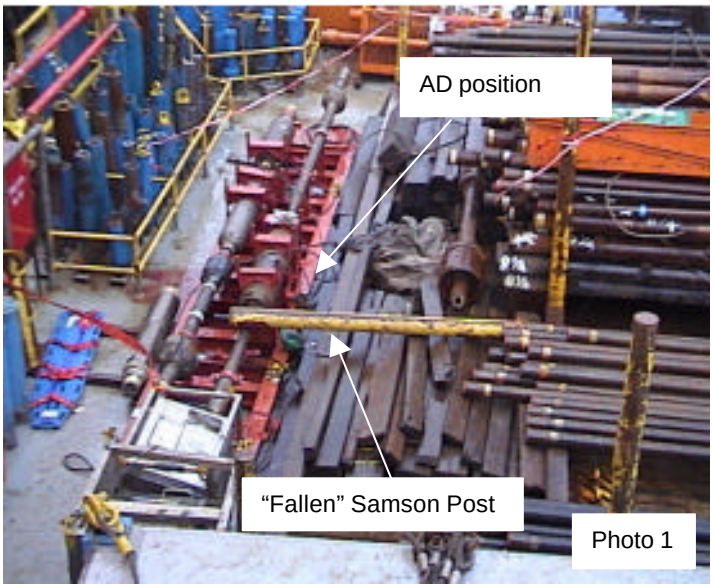

Photo 1

A Medevac was started and the AD was flown to shore but he died at 09,30 hrs the same day.

Main Causes

1. A "Samson Post" (SP) is a vertical post which prevents the side movement of horizontally stored tubulars on the pipe-rack (see photo 1). In this case the SP was 9'11'' long – 7" diameter, 1/2 wall thickness and weighed 320 lbs.

   It was found that there had been a failure of the circumferencial weld at the base of the Samson Post. (see photo #2). Subsequent investigation identified that the circumferential weld (filet) was of sub-standard quality and that 75% of the weld showed signs of corrosion.


Photo 2

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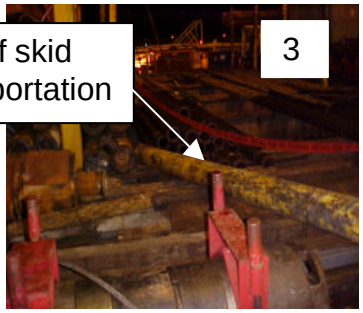
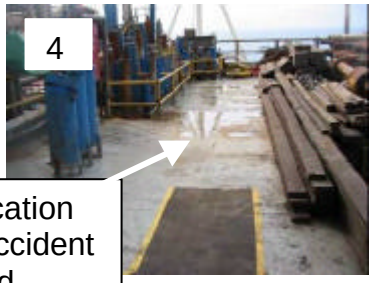
2. The AD hit his head on the protruding nuts from the Subsea Transporation Skid (see photo 3). (Halliburton have subsequently issued a worldwide Flash Report about the design of such skids and the need to modify the "protruding" bolt design).





3. The Subsea Transportation Skid had been stored on a walkway. (see photo 4).

Accident Investigation

Following the investigation into the accident, a number of important issues were identified:-

- Records onboard the rig showed that the weld in question had been repaired only 3 weeks before the accident. It seems as if crowding of the deck with equipment had led to the welder having restricted access and thus a poor quality repair was made. No check was made of the repair.
- Only 18 hours before the accident, it was reported that there was a crack in the samson post weld and the Shift Hand-Over Report recorded that *"Samson Post…has weld broken."* This dangerous situation was not recorded in any type of "STOP" card. No corrective action was being followed up until close out. During these 18 hours there is conflicting verbal evidence whether people were instructed to correct the situation or not. But what is clear is that nothing was done and there was a failure of communications on board.
- The SP was not an original one and has been added during the rig's life. The design of it's connection to the deck was not appropriate and the weld repair performed 3 weeks before was not properly done and not inspected.
- Although on this occasion the crack in the SP weld had been identified, SP's were not included on the rig's maintenance schedule for inspection. SP's in their normal day-to-day role get significant and repeated shock impact side-loading. This was particularly true on this rig where the crane drivers views were often restricted and he used the SP's as "bumper bars" when maneuvering loads.
- It was later found that in 2002 Amerada Hess had issued a Safety Alert about a failed (bolted down) Samson Post. Hence this type of incident had a precedent in the industry.
- The Medevac was started at 01:00. The helicopter arrived on board 3 hours 20 minutes after the accident. The AD reached the shore clinic 5 hours after the accident (including a 45 minutes journey by road ambulance) but he died at about 09.30 hrs the same day. It is the opinion of all the doctors involved in

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the accident investigation that, in this case, the time to Medevac etc., was immaterial to the final outcome.

- Medevac response time was hampered by the following:-
  - Night time operation requiring more time to muster medical support personnel and helicopter Some people were unfamiliar with the means of communications..
  - Lack of heliport facilities close to the treating shore based clinic. (In this case the 45 minutes from helipad to clinic was in the middle of the night; for an accident during the day the same journey could take considerably longer).

Requirements

It is required that each TFE affiliate reviews this SFN and identifies specific actions to be taken. This should include:-

- Passing this SFN to each of its drilling contractors and agreeing on a specific set of actions.
  - Review whether Samson Posts be simply circumferentially welded or if there should be strengthening / stiffening plates.
  - Review whether Samson Posts should be in the regular inspection program of the rig. If not ask to drilling contractor to include all Samson Posts in the inspection program of the rig.
  - Point out the importance of the enforcement of the safety management system onboard rigs: housekeeping, management of change, modification approval, job supervision, anomaly reporting,…
- Passing this SFN to each of its services contractors and agreeing a specific set of actions regarding transportation skids in order to avoid all sharp pieces of equipment
- Reviewing Total installations sites / installations with respect to similar items of equipment as Samson Posts. Include in the formal inspection scheme as appropriate.
- Maintaining a high level of housekeeping and deck management on site with formal internal inspections.
- Ensuring that a type of “STOP” card system (or some other form of unsafe act and situation reporting) is in place on site to ensure that all unsafe situations are formally captured and that corrective actions can be followed up until close out.
- Encourage wide cross-distribution of Safety Alerts to ensure no critical information is missed out.
- Reviewing Medevac arrangements especially with respect to communications, the mobilization of helicopters / ambulances and the distances from helicopter landing areas to clinics / hospitals (day and night).
- Reviewing whether enough realistic Medevac exercises take place. Are there exercises at night ? Are normal and back-up communications means regularly tested ?

For further information contact J-L Ybert (TDO/FPL/MSO) or Patrick Ngene (Nigeria affiliate HSE Manager).