

Drowning of three children at an old exploration site

Sri Tarsem Singh

Introduction:

An incident of drowning took place at an old exploration site. This caused death of three children aged 14, 15 and 18 years.

Brief description:

An exploratory well was drilled in the site of incident in November 2005. The well was drilled up to planned target depth to test a structural trap. Zones of interest in this drilled well were tested and found to be dry.

The well was suspended and was in the same status till date of incident.

The entire site was fenced and one caretaker was deployed to ensure that the fencing, wellhead valves are not stolen and site is not encroached.

On the day of incident in August, 2013 in evening hours, the company was informed that two children (aged between 13 to 15 years) were drowned in a pit adjacent to the fencing.

The emergency response team of the company reached the site for confirmation of the incident and necessary actions. On reaching the site, they were informed that actually three children aged 14, 15 and 18 years (two boys and one girl) were drowned and their bodies were taken out of the water filled pit by the villagers. Police was informed immediately about the incident.

Observations:

- i. The site was fenced and a notice board prohibiting unauthorized entry to the site was displayed at the entrance gate.
- ii. Inside the fenced site inner fencing was observed. This was to isolate an area where a base camp was proposed to be set up for operational purpose. This fencing was of more height and recently constructed.
- iii. The suspended well was inside the inner fenced area and three waste pits and one flare pit were between the inner and outer fencing.
- iv. The three pits located adjacent to the inner fencing were earlier used as waste pit for drilling the well. These were found to be completely dry at the time of investigation.
- v. One small and deep flare pit was located adjacent to the outer fencing. This flare pit was partially filled with clean water at the time of investigation. One side of the pit was having a steep slope starting from top to the bottom of the pit.
- vi. As there was no any activity at this site since drilling of the well, it was not manned by Cairn India Limited personnel.

- vii. No one has witnessed the drowning of children. Outer fencing around the site was not adequate to keep people out. It could be easily breached.

Root cause of the incident:

i. Source of water:

The root cause of the incident was deficient site abandonment procedure (**Non restoration / non filling of open pits**). Rain water may have filled in these uncovered dry Pits during monsoon rains. As the side walls and bottom surface of the flare pit adjacent to the outer fencing was made of bricks and cement, the accumulated rain water was not being absorbed / soaked by surface sands, whereas the rain water accumulated in other three earthen pits was absorbed

ii. Reason for drowning:

It is evident from the photograph of the flare pit taken on the day of incident that the flare pit adjacent to the outer fencing was filled with clean rain water up to half of its depth.

The children may have crossed the weak fencing to enter the site and tried to approach the water (in the pit) through the sloppy side of the flare pit. In this process, the first child may have lost his balance while moving on the slope and fell into the water.

The other two children quite probably drowned in an attempt to save the first child.

1.0 Recommendations:

1. The SOPs for permanent and temporary abandonment of exploration / production sites should be developed.
 - i. In case of sites, where existing wells are not producing or dry and no drilling activity is envisaged in future, all the pits are to be backfilled / restored for permanent abandonment of the site.
 - ii. In case of temporarily abandoned sites where no hydrocarbon activity (drilling or production) is expected in near future but the pits have to be retained, for future activity the area should be adequately fenced and manned for access control.
 - iii. In case of sites, where existing wells are producing and further drilling activity is envisaged in future, if the waste pit is to be retained, the area should be fenced and manned for access control.
 - iv. In case of sites, where existing wells are producing and no drilling activity is envisaged in future, all the pits are to be restored.
2. Nearby population should be sensitized, through structured interaction, about the hazards associated with well site, for safety of people particularly children and livestock.