# **Wind wall Cladding Dropped Object**



# **Description of incident:**

A piece of external cladding fell from the North-West corner of the drilling derrick middle stem, weighing 2.25 Kg and measuring 1.92m by 0.11m. It landed on the drill floor, 34 meters below. No persons was on the drill floor, and no drilling or crane operations were taking place at the time.

During investigation, it was discovered that the cladding was modified during installation, and no screws were used to fix it to the steel members. Instead, it was attached with pop rivets. This was different from the original design, and subsequent drawings were not updated to reflect the current build. As a result, it was difficult to detect the anomaly during inspections and maintenance.

The weather conditions and deviation from the original design caused the cladding to fall.







# **Findings:**

## **Damage & Weather**

- No evidence of structural or impact damage which could have caused or contributed to the incident.
- The weather at the time of and leading up to the event was not considered to be a causal factor, however, cumulative wind effects on the corner of the structure which are known to have increased loadings, could have weakened the cladding.

### Design

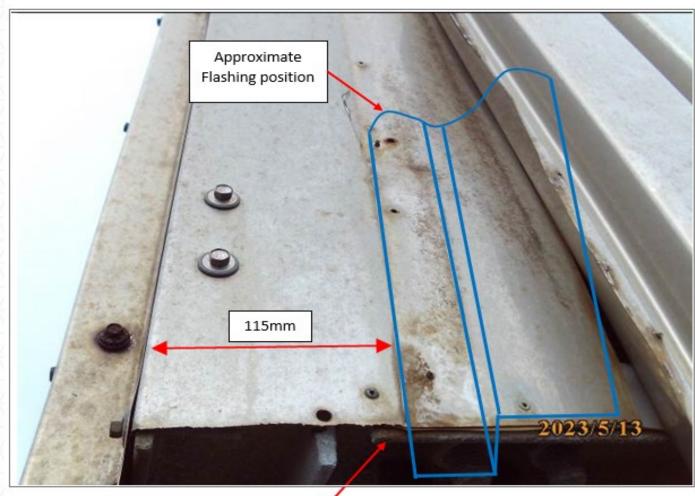
- The presence of galvanic and atmospheric corrosion were expected for this type of environment and age of structure.
- Tek screws were omitted from the securing arrangement of the cladding which would have strengthened the attachment mechanism, which only consisted of pop rivets and no through attachment to a steel member.
- The cladding did not fully extend to the corner of the derrick, which was a deviation from the original design and was modified to account for a light fitting. Drawings were not updated to reflect this change, nor had this been identified in previous inspections.

### **Maintenance and Inspection**

 Inspection and maintenance focuses on the integrity of securing mechanisms and not the actual type of mechanism used i.e. pop rivets vs. tek screws.







There was steelwork behind the Flashing at the bottom.

Superimposed position of cladding – indicating not in correct position at corner of derrick

