

# **Corrosion Awareness for Drilling Equipment**

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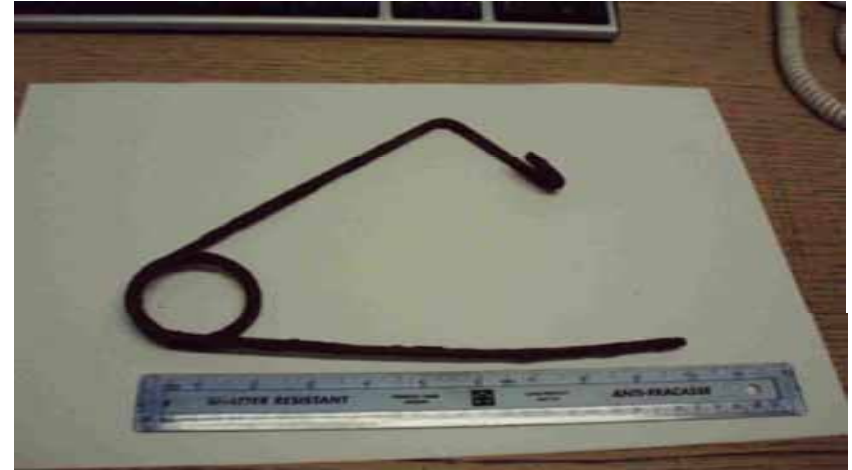
**Why do you think it is important to understand the corrosion threats to drilling equipment?**



# Corrosion related drilling incidents

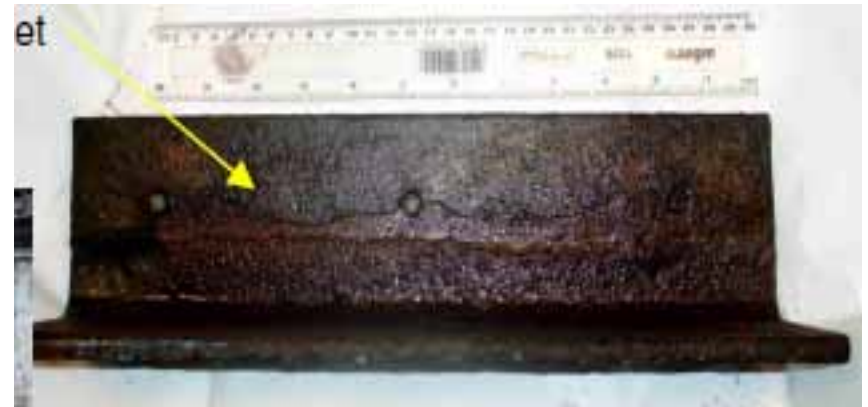
**2007 Brent Alpha – Near miss -  
Dropped object**

**What happened: High wind caused  
shackle safety pin to drop from  
Derrick. Pin severely corroded.**



**2007 Nelson – Near miss - Dropped  
object**

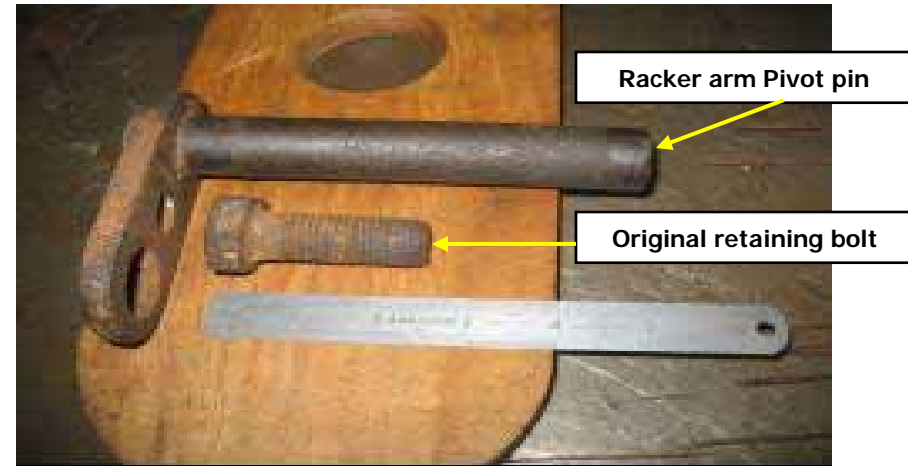
**What happened: L shaped Drill line  
drum structure bracket dropped to  
heavy tool store roof as a result of  
corrosion of the retaining bolts.**



# Corrosion related drilling incidents

**2008 JW McLean – Near miss -  
Dropped object**

**What happened:** Threads of the retaining bolt on the pivot pin for the top racking arm latch corroded. Corrosion was a contributing factor causing pivot pin to drop to drill floor.



**2008 North Cormorant – Near miss -  
Dropped object**

**What happened:** Bad weather caused the severely corroded V door rubbing strake to drop onto drill floor. Galvanic corrosion cause of degradation.



**We can not demonstrate control  
of corrosion threats of drilling  
equipment!**



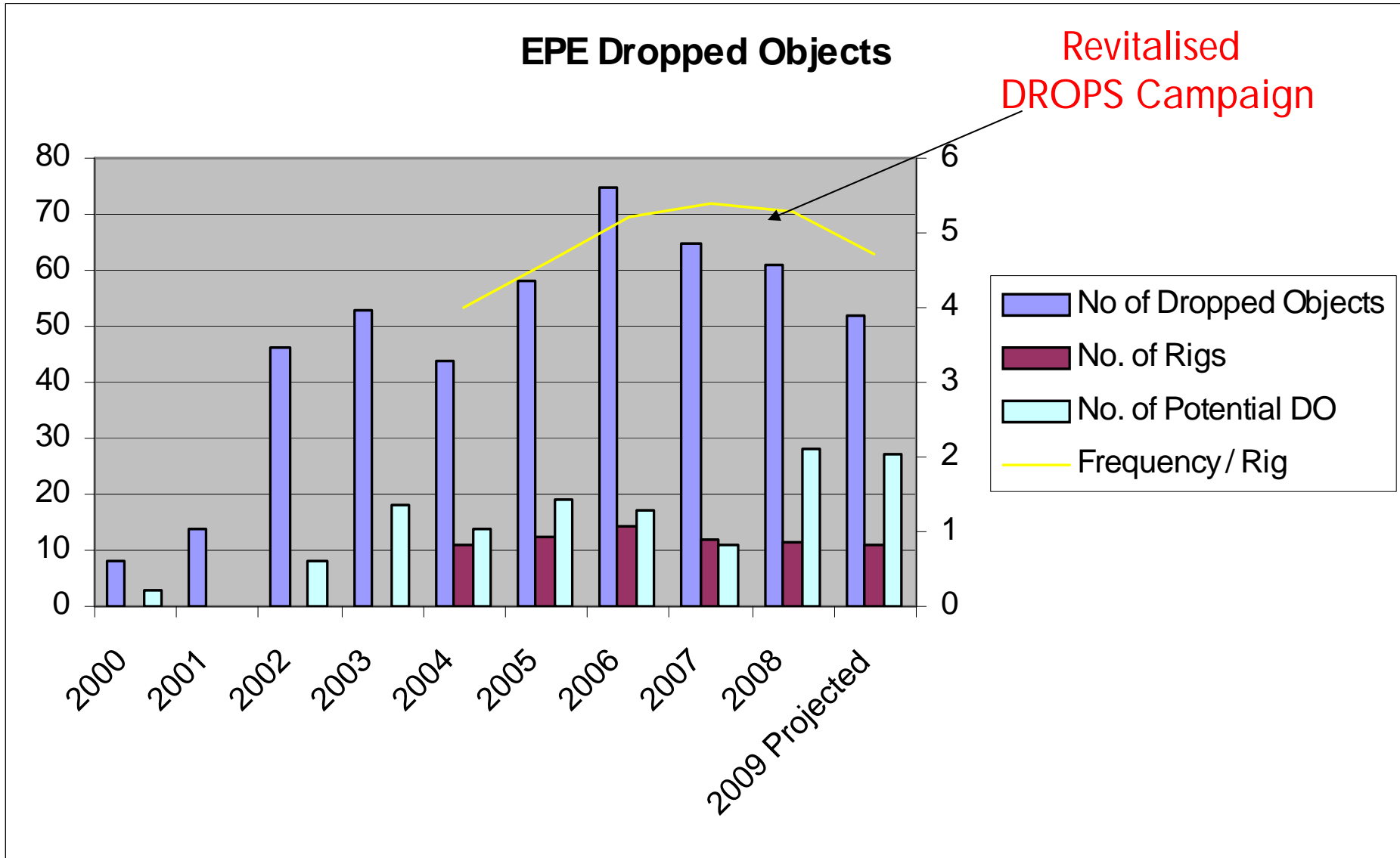
# Corrosion Management

**Shell EPE HSE Policy infers that...**

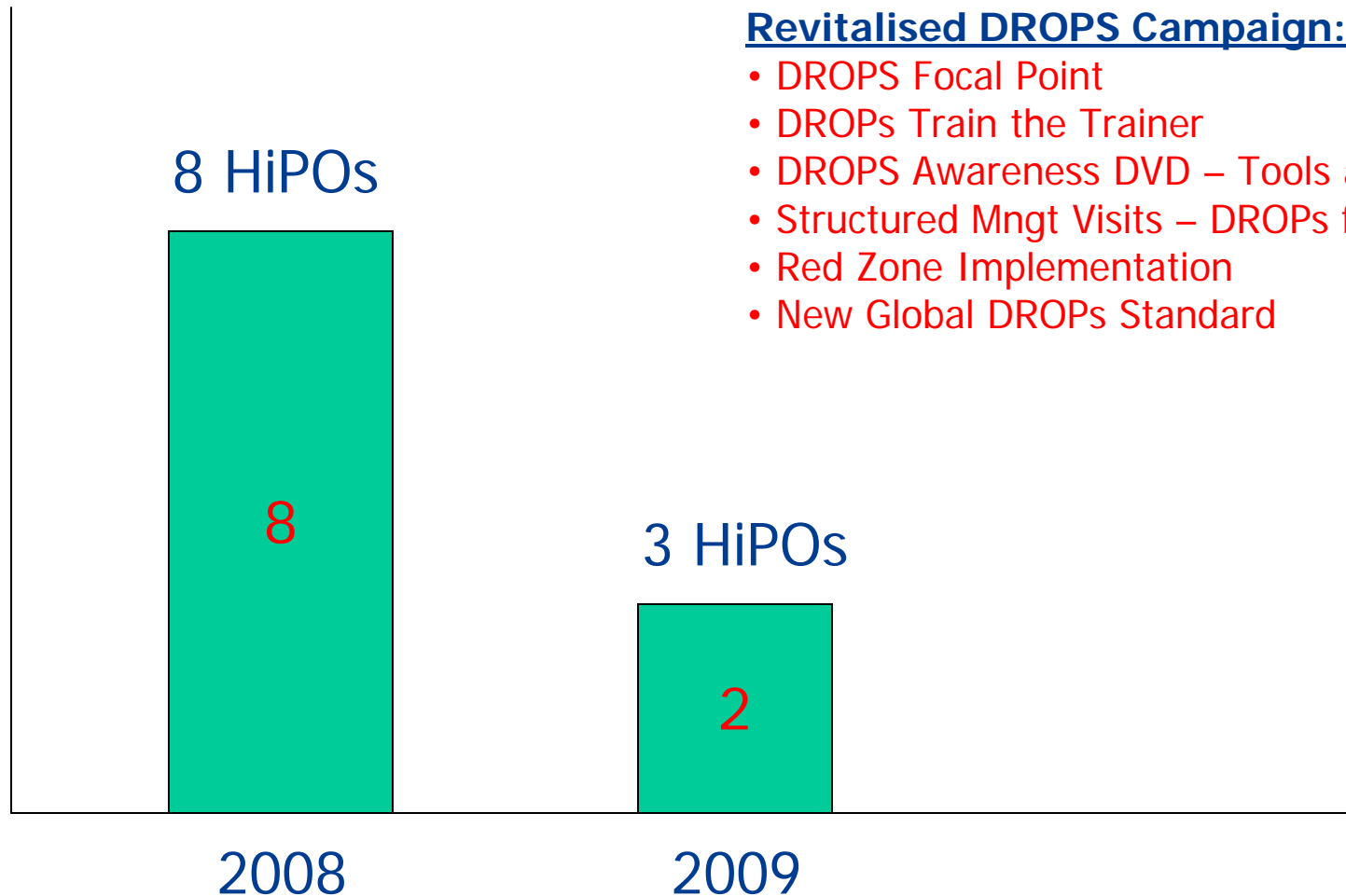
**Corrosion threats shall be identified, quantified and controlled to safeguard technical and operational integrity throughout the life of the asset**



# DROPS Trending



# DROPs - High Potential Incidents (UK)



## Revitalised DROPS Campaign:

- DROPS Focal Point
- DROPS Train the Trainer
- DROPS Awareness DVD – Tools at Height
- Structured Mngt Visits – DROPS focus
- Red Zone Implementation
- New Global DROPS Standard





# Is this cause for concern?



# Target areas

- **Housekeeping / DROPs**
- **Catenary trays for cables**
- **Derrick and Structure**
- **Pipework**
- **Bulkheads / Doghouse**
- **Windwalls**



# What does this mean for me?

## PLEASE REPORT:

- Potential Dropped Objects
- Coating Breakdown
- External Corrosion
- Damaged Handrails
- Damaged Gratings
- Corroded Bolting
- Loss of Structural Integrity

USING SHAPE /START/STOP → (MCDR)



**Corrosion awareness will help to prevent corrosion related incidents**

**Corrosion of ageing equipment -  
What are you doing about it?**



# Corrosion Guidance Handbooks



## External corrosion handbook

Upstream oil and gas production plant



**Together we can make a difference!**

**For more information call your  
Asset Corrosion Engineer**

