



PREVENTION OF DROPPED OBJECTS

Shell's Experience

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Presentation for DROPS Forum Asia Singapore 6th Apr 2011

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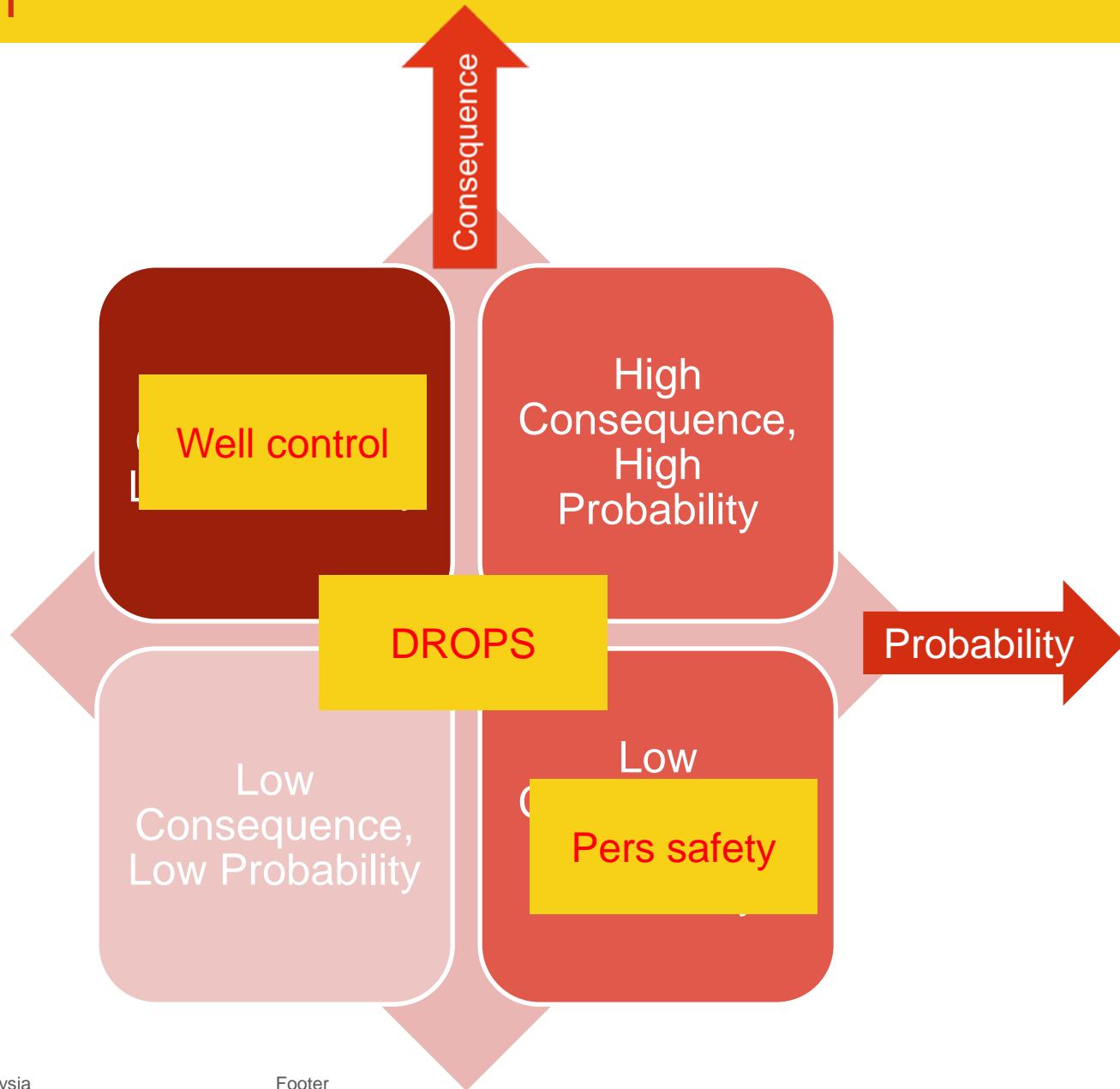


CONTEXT

- Dropped objects have accounted for the great majority of potential and actual fatalities in Shell's well operations over the last few years.
- Within Shell's Wells community, dropped objects account for around 50% of High Potential (potentially fatal) incidents.
- Post Macondo is DROPS still correct area of emphasis?
 - Absolutely – I expect on time average basis dropped objects are killing same number of people (order of magnitude) as well control events
- Spectrum of safety management:
 - Personal safety – technical safety – process / well control
 - DROPS can be thought of middle ground of a consequence / probability matrix -

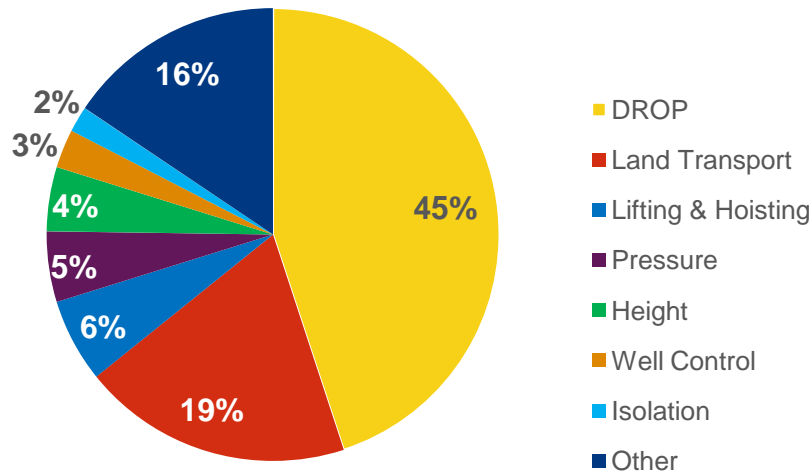


CONTEXT

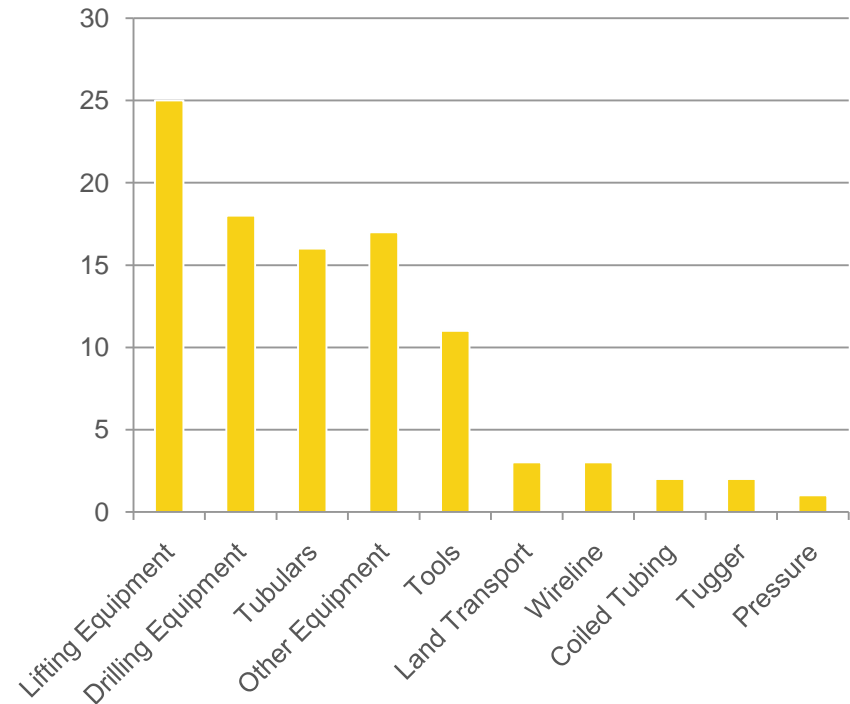


SHELL HIPO INCIDENTS 2010

HIPO categories



Drops categories



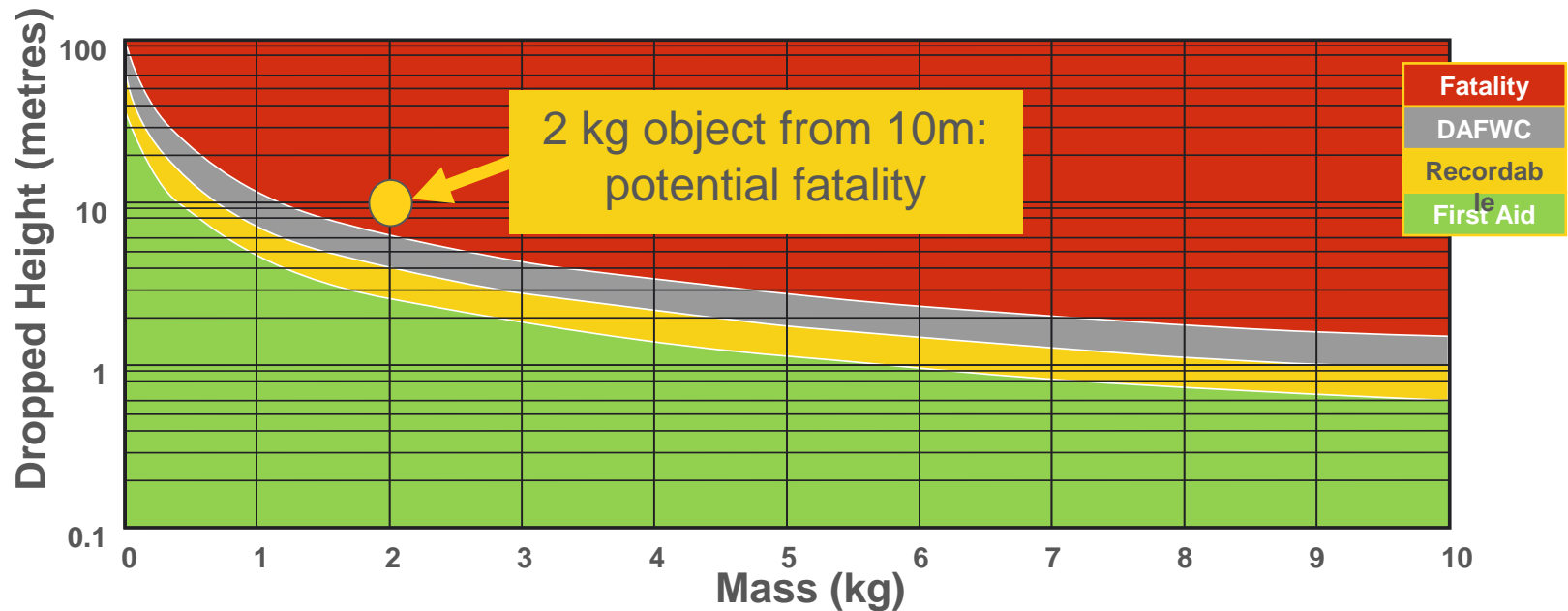
218 incidents
45% of HIPOs are DROPs (98)

(Excludes Bapetco Life Saving Rules violations noted as HIPOs)

Lifting Equipment and Drilling Equipment are primary concerns

WELLS HIPO DEFINITION:

- An unplanned HSE event (incident or near miss) which has the potential severity to cause permanent disablement or death.
- The potential consequence of a DROPS incident can be assessed with the DROPS Calculator.
- HIPOs reviewed by senior Shell/Contractor leaders



PREVENTION OF DROPPED OBJECTS CAMPAIGN OBJECTIVES

- The Campaign was designed to:
 - Eliminate dropped objects from our business,
 - Prevent harm to people from dropped objects,
 - Prevent damage to equipment and assets from dropped objects,
- The Campaign targets everyone who works on drilling, completions and well interventions, including staff and contractors.

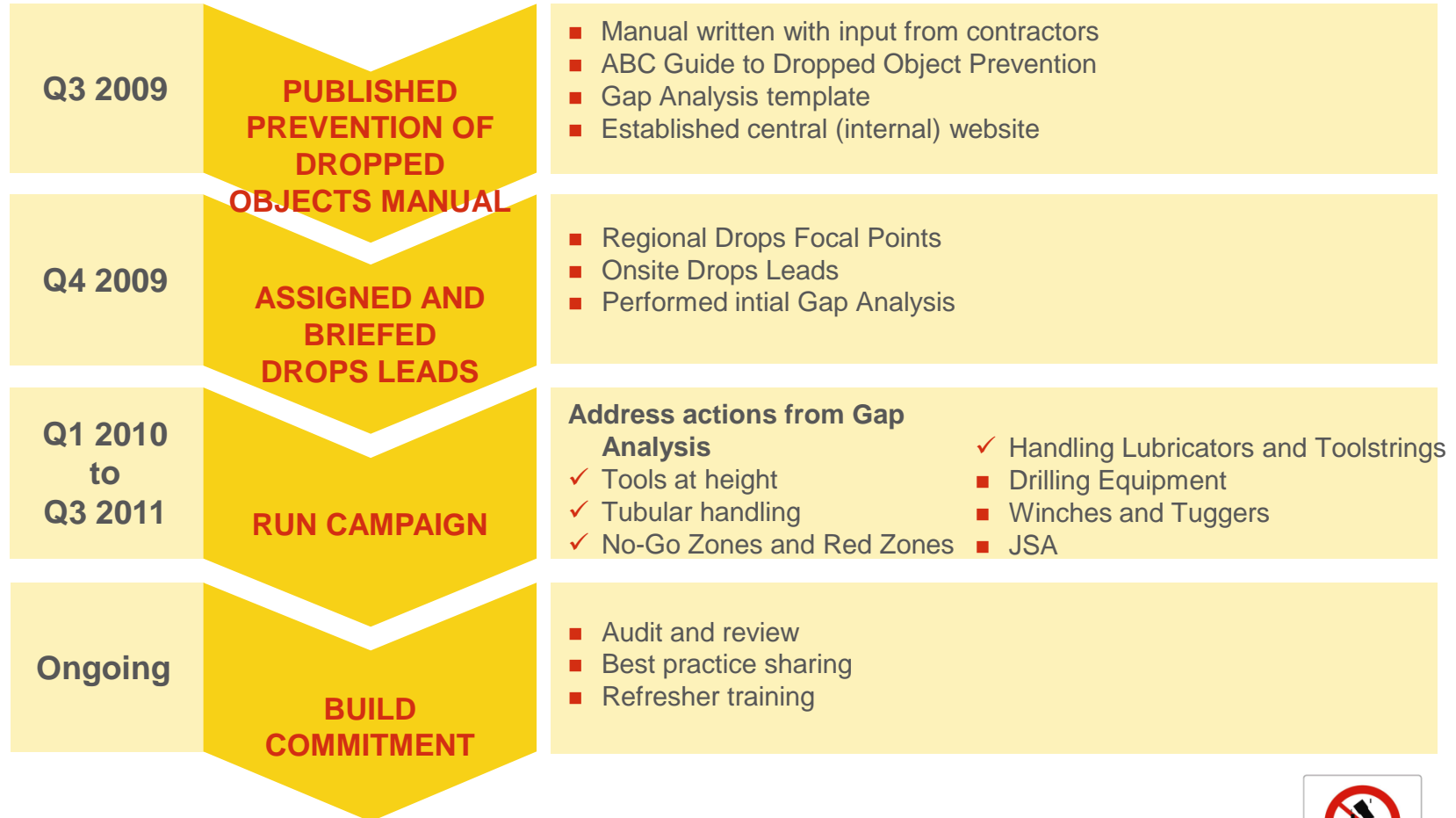


PREVENTION OF DROPPED OBJECTS CAMPAIGN – THE REQUIREMENT

- A plan and deliverables to implement the Shell Global Standard for Dropped Object Prevention (Prevention of Dropped Objects Manual)
- Managers, supervisors, operations staff and contractors to use the manual content and comply with the requirements on a day to day basis
- The requirements of the manual to be adopted and used across different countries and cultures, for over 100 rig locations and over 100 well completions and intervention activities on a daily basis, on and offshore.



PREVENTION OF DROPPED OBJECTS CAMPAIGN



DROPS CAMPAIGN 2010 & 2011 ACTIVITIES

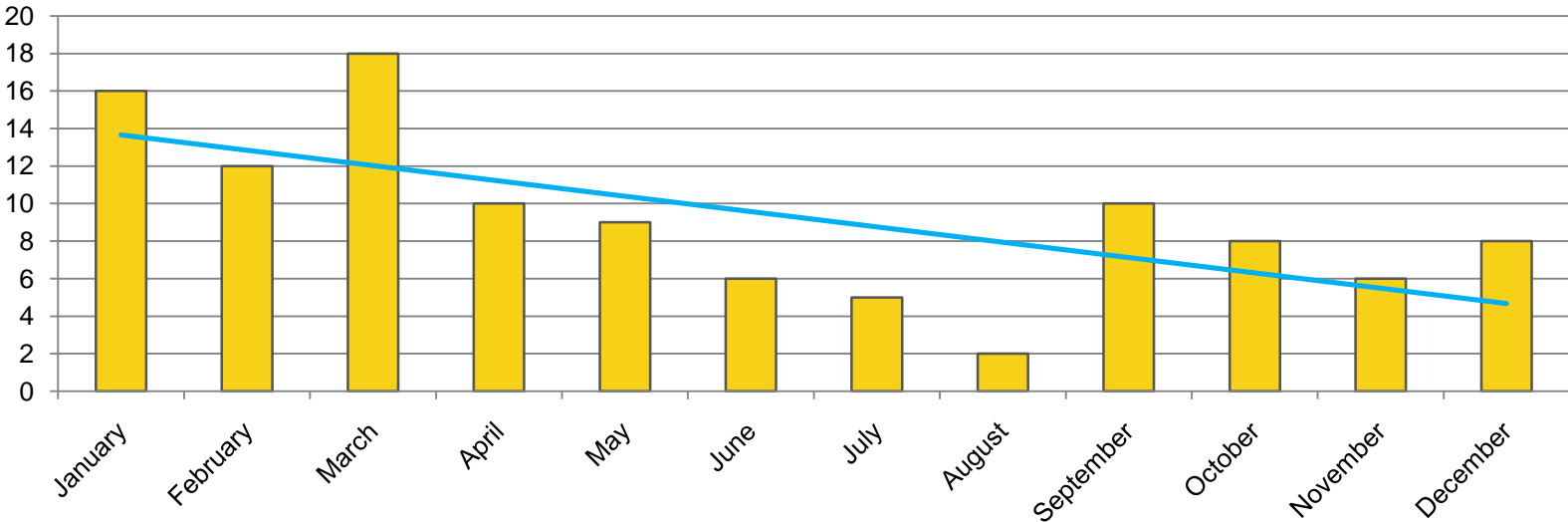
- Videos & learning Packs
 - “Tools at Height” Feb 10
 - “Tubular Handling” July 10
 - “No-Go zones and Red zones’ Oct 10
- Dissemination to the industry
 - IADC Singapore Mar ‘10, IADC Amsterdam Sept ‘10
 - Learning packs & Videos available via IADC Oct 2010

PLAN FOR 2011

- Roll out 3 more animated videos and learning packs
 - Handling [wireline] lubricators and tool strings.
 - Drilling Equipment
 - Winches/tuggers
- Vol.2 of the ABC Guide to Prevention of Dropped Objects: Inspections & Audits
- Conduct DROPS self assessments - Q3

PREVENTION OF DROPPED OBJECTS

Dropped Objects Incidents 2010 - RAM 4+ HiPo (Source FIM)



THE FOUR PRINCIPLES: BASIS FOR THE PREVENTION OF DROPPED OBJECTS MANUAL

PRINCIPLE 1:	Contractors providing equipment and personnel on Shell well sites shall have a Dropped Object Prevention Scheme
PRINCIPLE 2:	A systematic dropped object inspection programme shall be in place.
PRINCIPLE 3:	Worksite Hazard management for dropped objects shall be in place.
PRINCIPLE 4:	Audits to check for compliance with the Dropped Object Prevention Scheme shall be in place.

Each principle has a series of mandatory requirements



KEY STAKEHOLDERS

- Line Management – commitment from Shell and Contractors
- Regional Drops Focal Points – centre of campaign in the region
- Worksite Drops Lead – driving the campaign on site
- Front end workers – understanding and develop a desire to comply
- Suppliers – campaign materials, equipment providers (e.g. tethered tools)



BUILDING COMMITMENT

- Positive changes can soon disappear if not reinforced by:
 - Management commitment
 - Reward and recognition
 - Clear Expectations e.g. in staff tasks and targets
 - Audit and review process
 - Continuous refresher training
 - Newsletter articles, posters



ONGOING CAMPAIGN

- Audit compliance against the requirements of the Prevention of Dropped Objects Manual through:
 - Wells Shell/Contractor - Joint X-Site Inspection Visits.
 - Annual contractor facility audits.
 - Local area compliance audits.
- Train field staff in certain specific topics
 - use of animated (language free) videos
 - learning packs to stress the key points from videos
- Continue HIPO Serious Incident Reviews with Senior Leaders in Shell and Contractor organisations



