

GOMR Incident Trends

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“To promote safety, protect the environment and conserve resources offshore through vigorous regulatory oversight and enforcement.”



Overview

Latest Industry Trends Through 2022Q1

Updates on Injuries, Fires, and Lifting Analysis

Recommendations & Path Forward



Recently Released Safety Alert – No. 442

- Emphasizing the use of properly fitting gloves (e.g., impact, chemical, or a dual glove) in the JSA to reduce or eliminate the severity of sustained hand injuries.
- Establishing a policy/procedure to require employees to depress the line entirely or depressurize to a much lower pressure before an employee manipulates valves under pressure to avoid situations where a valve doesn't cut out or is forced open when under stress.
- Ensuring that during pressure testing, hoses are secured to prevent them from moving. Avoid stressing small threaded connections by properly supporting hoses and tubing.
- Using a whip check across a pressurized hose connection to mitigate uncontrolled movement in the event of connection failure.

SAFETY ALERT

Safety Alert No. 442
June 1, 2022



Contact: bseepublicaffairs@bsee.gov
Phone: (800) 200-4853

Unsecured Pressurized Hoses Result in Hand Injuries



Incident 1: The spot where the contractor's right thumb was pinched between the ball valve and the hose head.



Incident 2: Failed Hose Connection on Bottle Rack.

In 2022, BSEE observed two hand injuries in the Gulf of Mexico from pressurized hoses during coil tubing operations. In both cases, the injured parties were not wearing proper impact gloves to help reduce the severity of a hand injury. Moreover, in neither incident was the appropriate safety device/equipment installed to keep the pressurized hose secured correctly in the event of a mechanical failure.

Incident 1: A flexi coil hose was filled with 5.5 bbls of saltwater during a pressure test and tested to 10,000 psi for 10 minutes. The pressure was bled to 6,000 psi through a needle valve at the pump's discharge following the successful test. Once the pressure was bled to 6,000 psi, the contractor began releasing pressure from a ball valve on the



Upcoming Safety Alerts

- Floorman Falls From Derrick Ladder
- Stored Energy in Slings Causes Multiple Injuries
- To be drafted – Chemical Mixtures / Combustion

When Winning is Your Only Goal.....

Why Aren't There Reliable Statistics on Offshore Worker Fatalities?



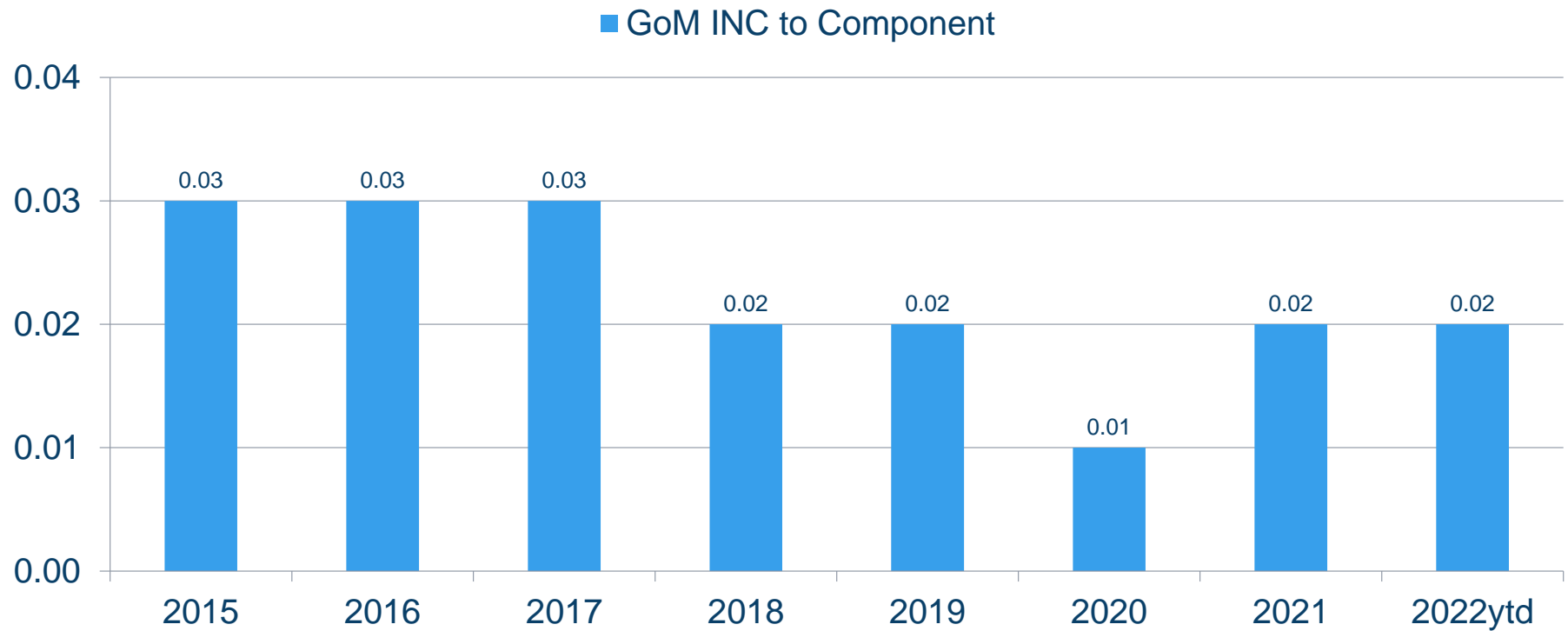
like these to try to get offshore workers to sign away their rights to file suit and seek compensation for their injuries.

Protecting the Rights of Offshore Workers

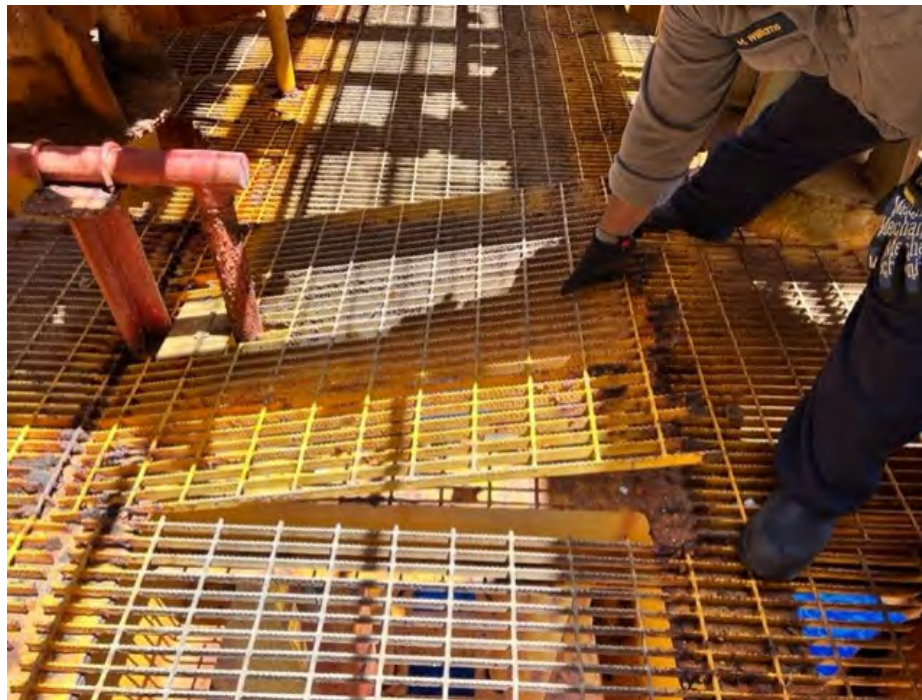
Why should we focus on finding accurate information on offshore injuries? The offshore oil and gas industry needs more oversight, particularly regarding worker safety. However, it's difficult to pinpoint the main risks and problems if we cannot gather reliable insight into the number of accidents, why they happened, and who was affected. This is a challenging undertaking and one that will require agencies like BSEE to do more.



Historical INC-to-Component Ratio - GOM

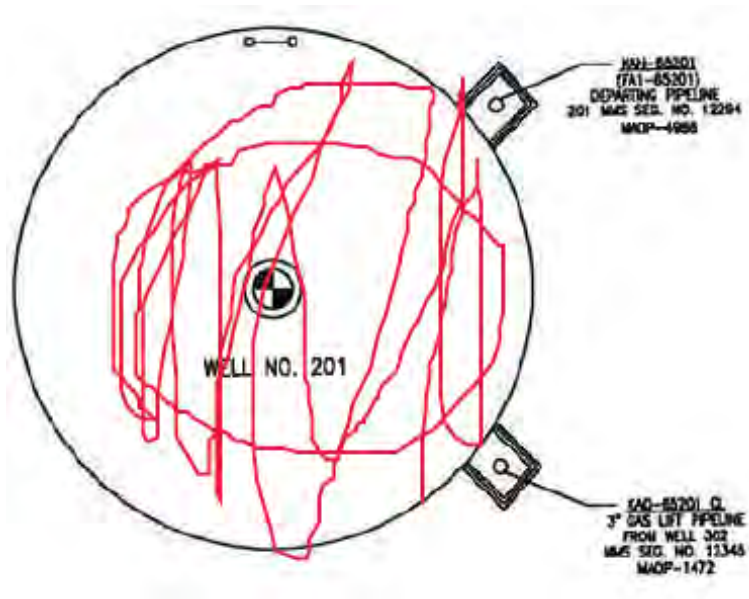


Corrosion and Grating Issues



Corrosion INCs

- Grating/supports on boat landing

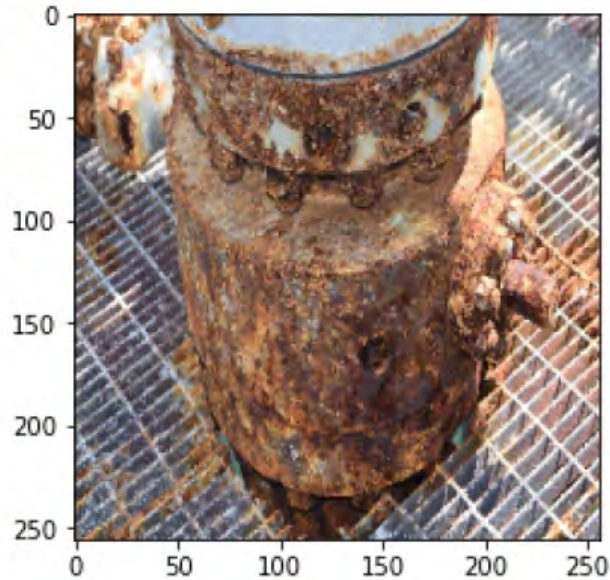


Corrosion INCs

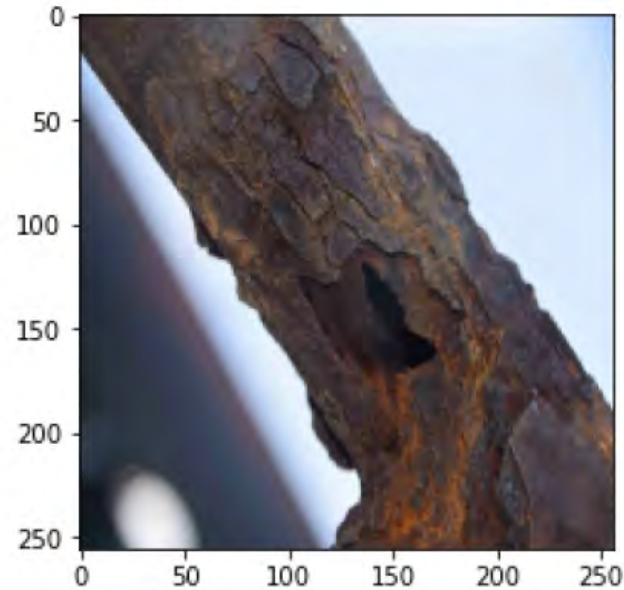


Level I Surveys – Working with NASA

true rating: A
pred rating: C
raw predictions: [0.02 0.39 0.58]

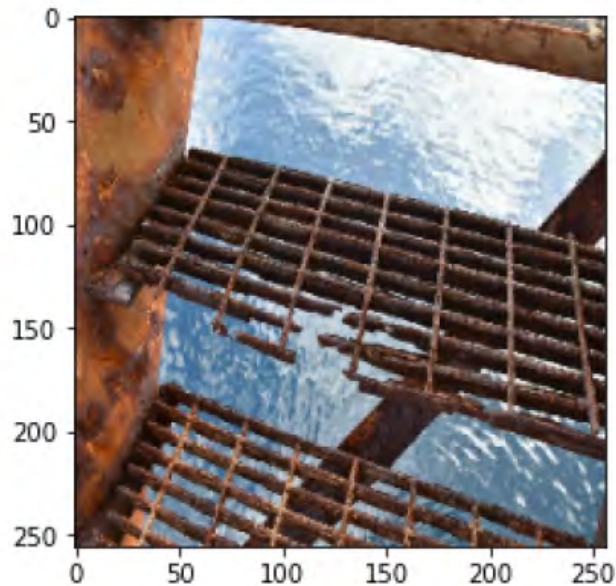


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pred rating: C
raw predictions: [0.02 0.38 0.6]

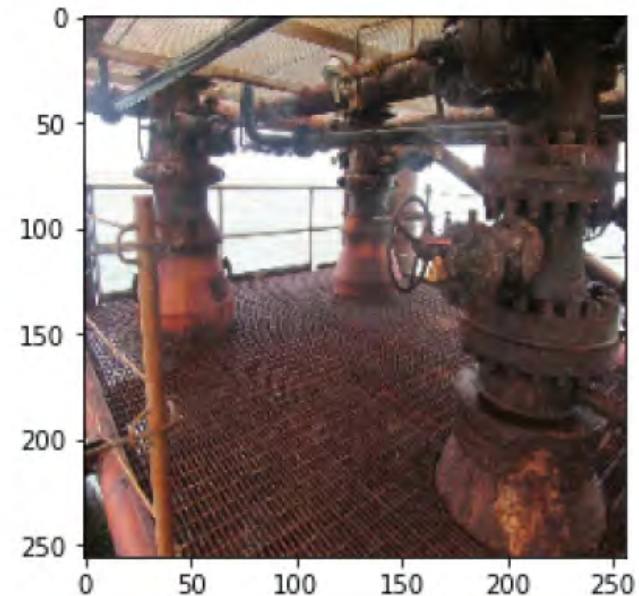


Level I Surveys – Working with NASA

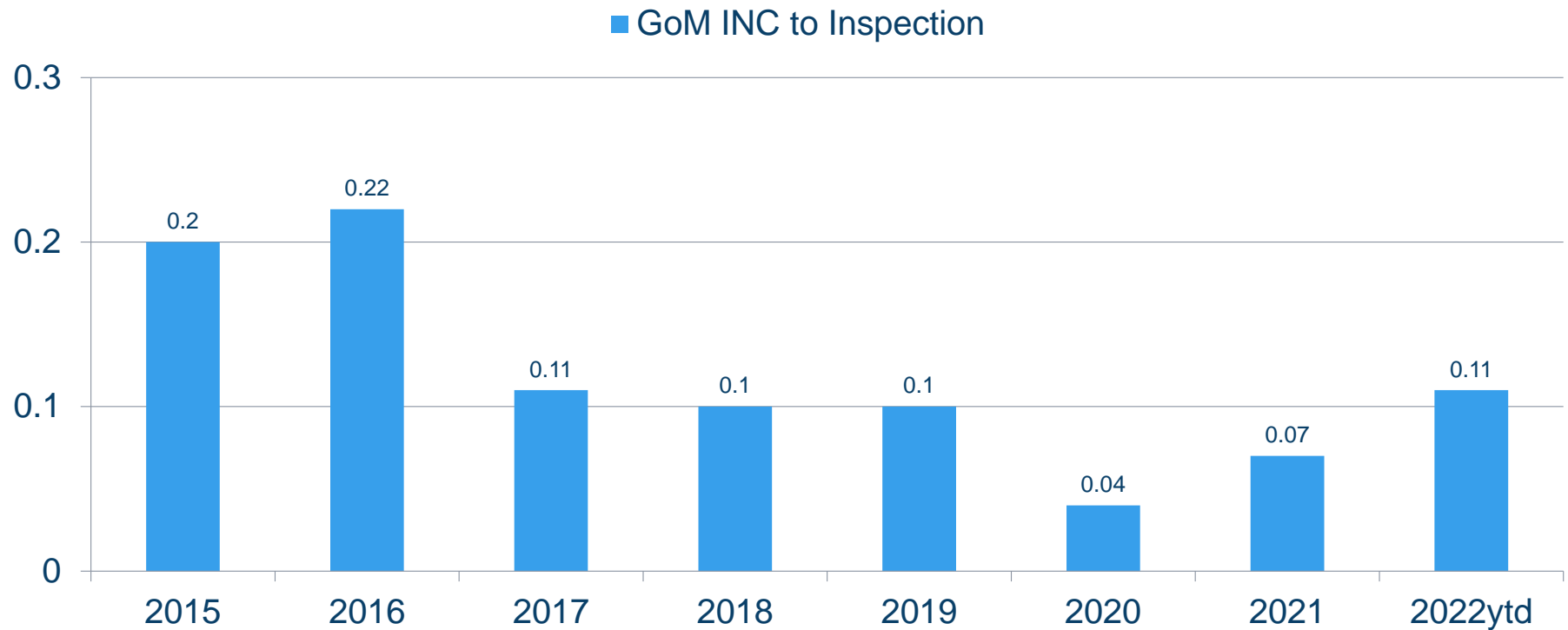
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pred rating: C
raw predictions: [0. 0.14 0.86]



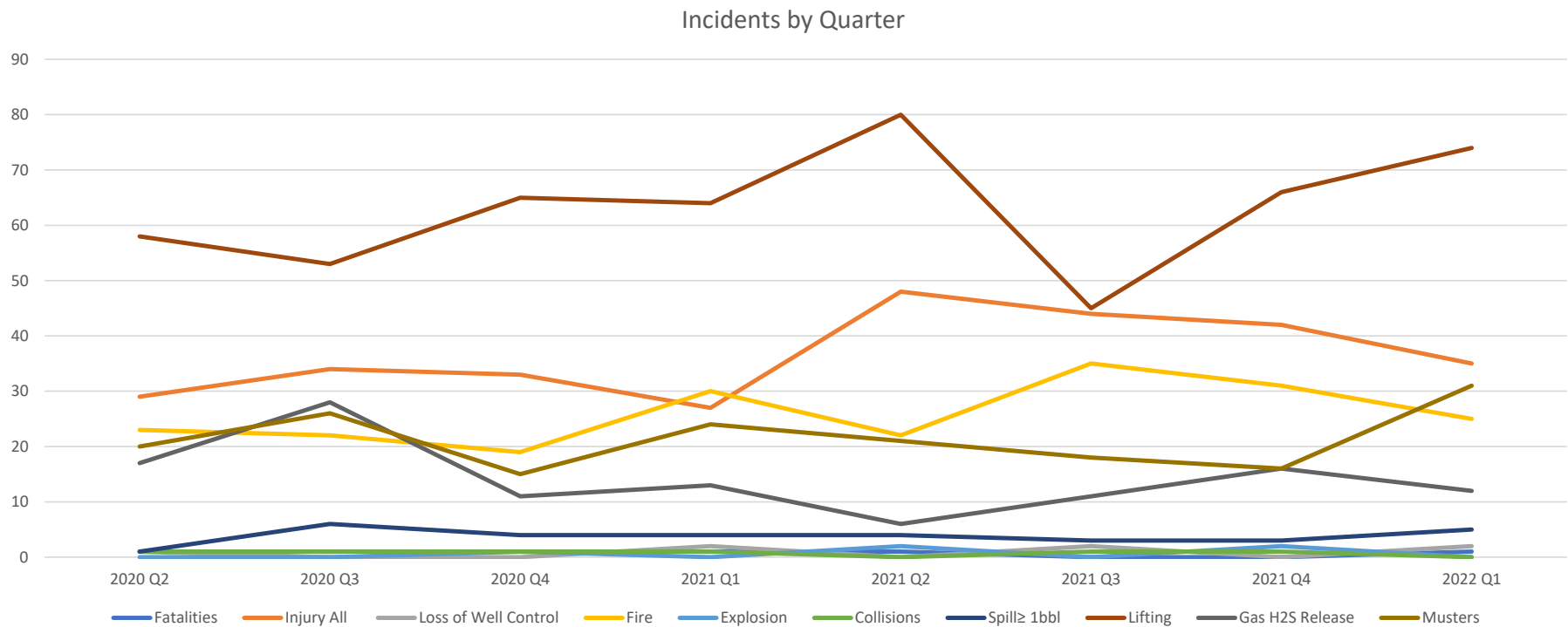
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raw predictions: [0.03 0.27 0.71]



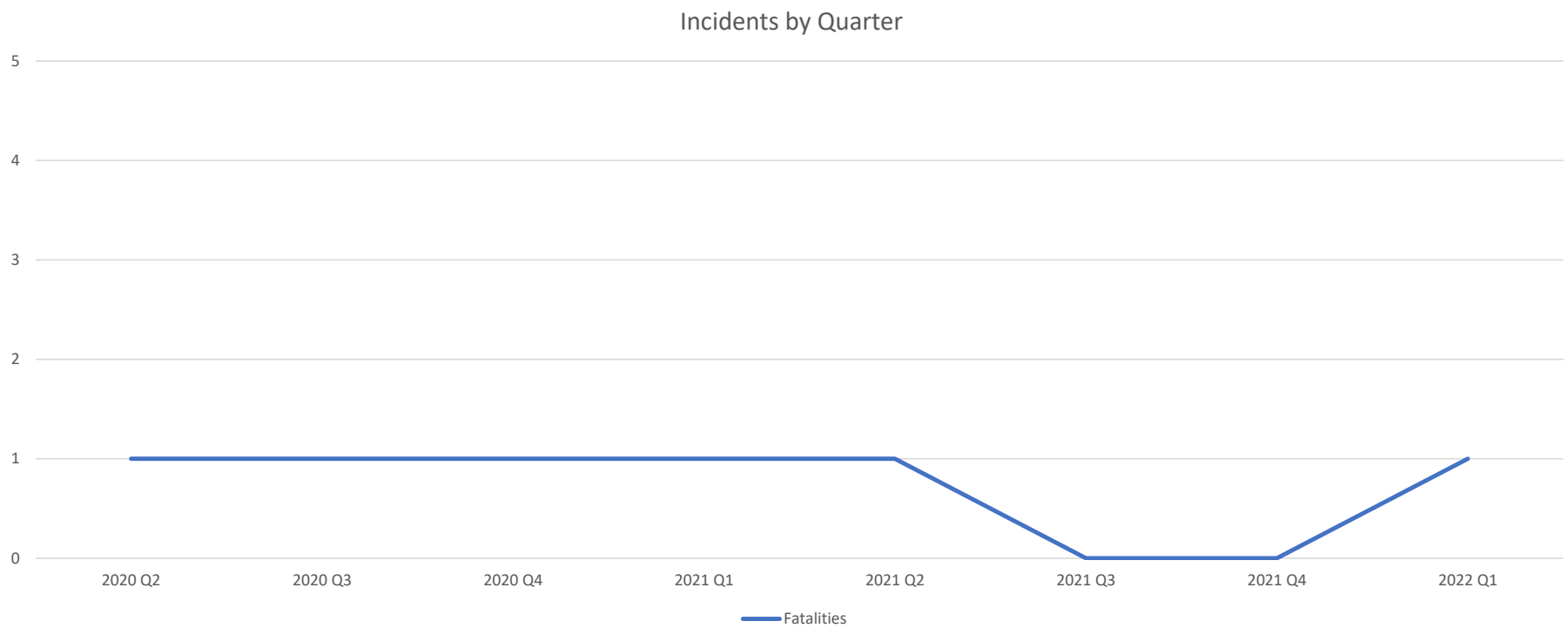
Historical INC-to-Inspection Ratio - GOM



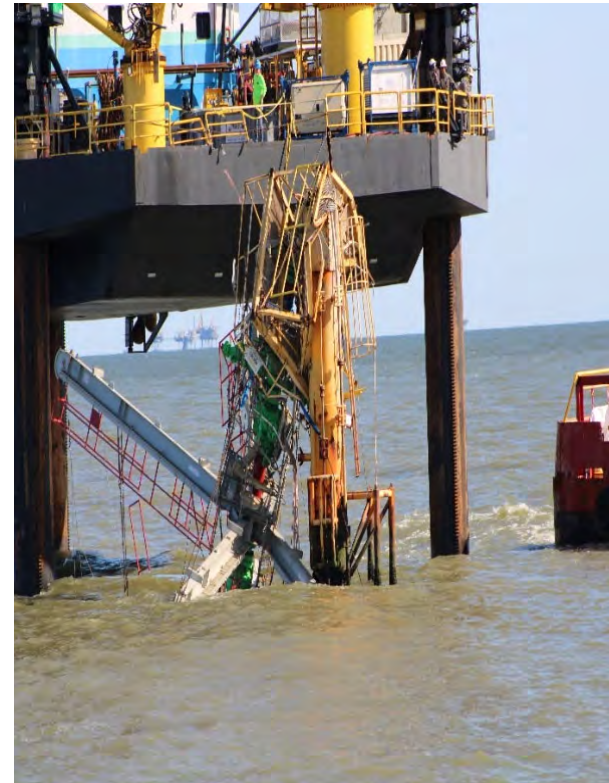
OCS Industry Rates by Rolling Quarter – 6/5/22



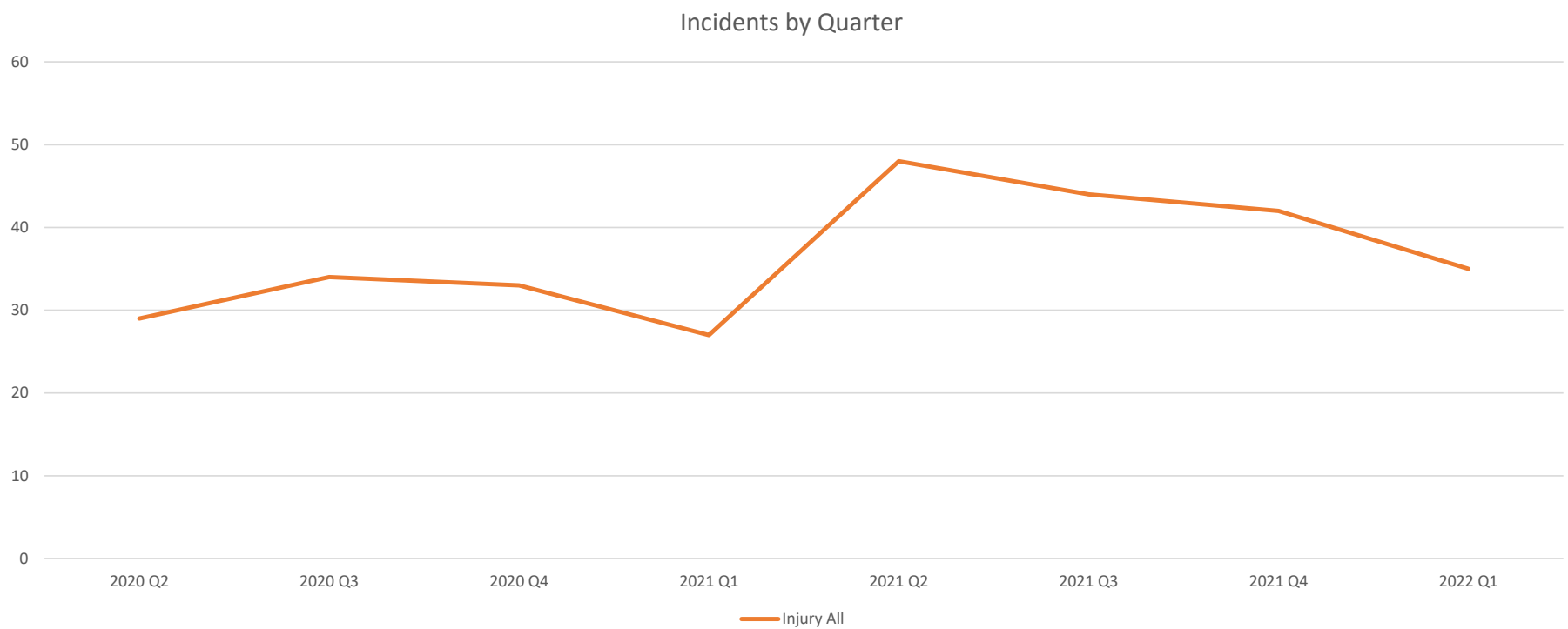
OCS Fatality Trend



Fatality – 3/25/22



OCS Injury Trend



Injury - 3/28/2022 – LTA > 3 Days

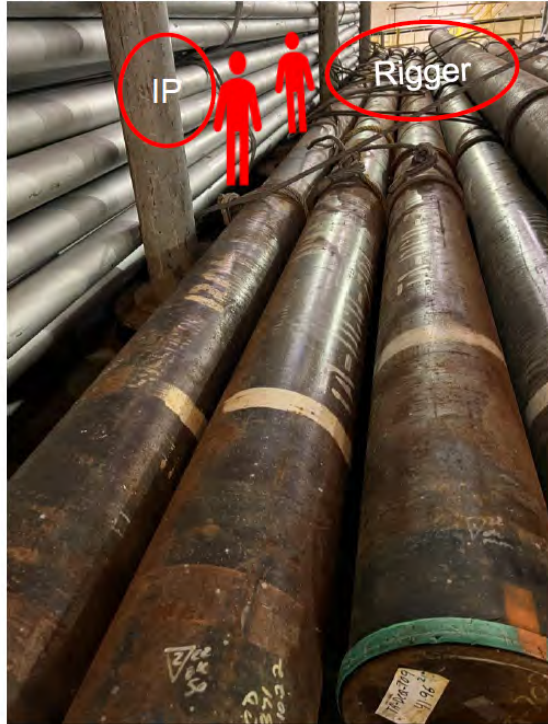


Injury - 3/3/2022 – LTA >3



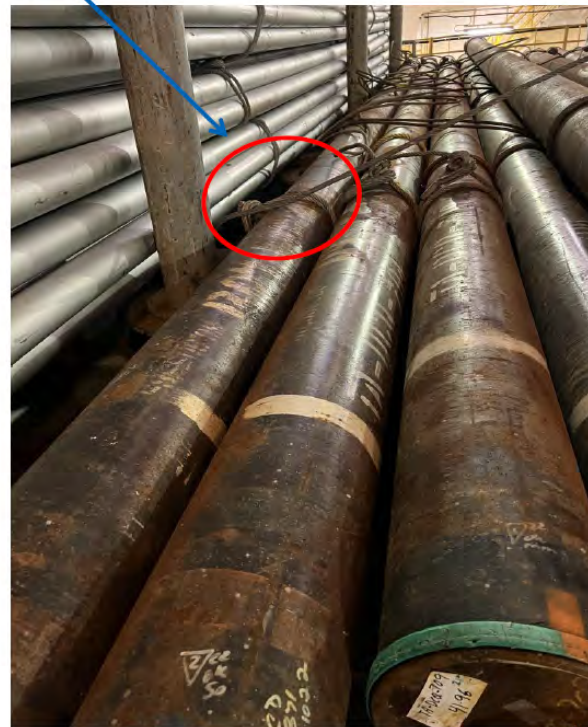
Injury - 3/11/2022 –RW-JT >3

- Rigger: Preparing to hook slings to crane
- IP: Location at time of incident



© 2020 Chevron

- Sling being hooked to crane is looped around dog clamp of another sling.

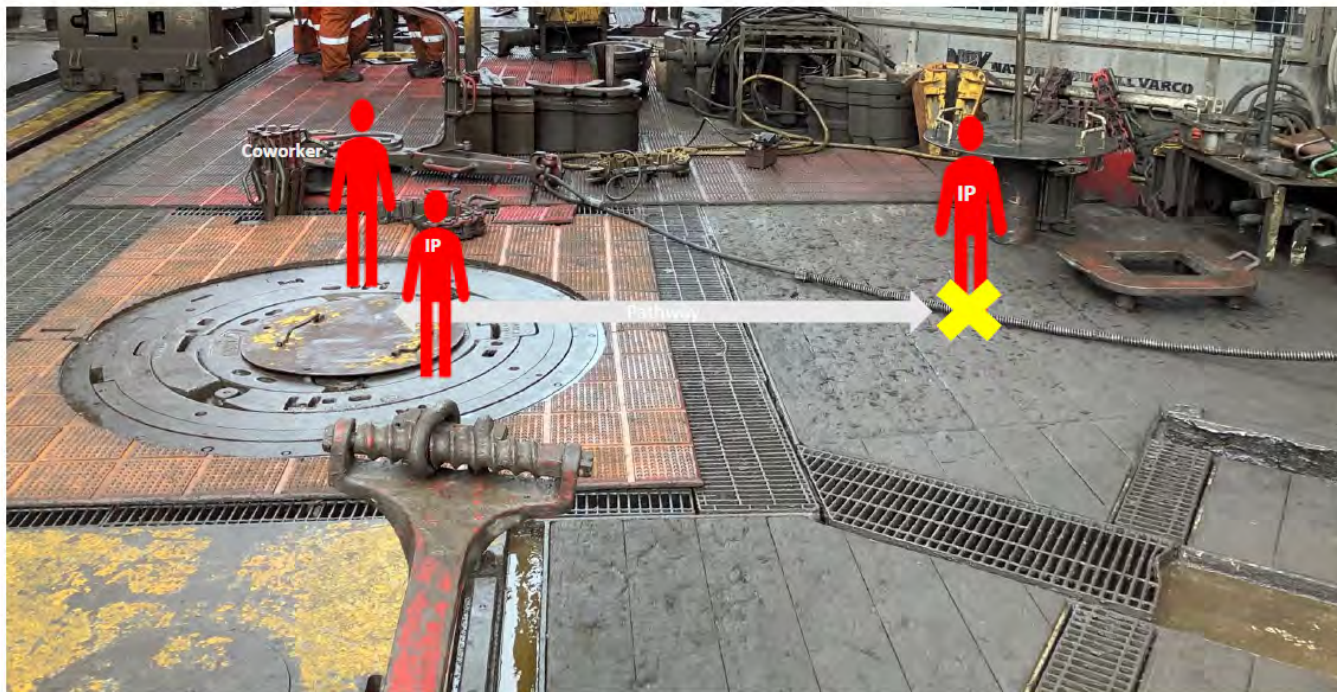


3

Injury - 3/14/2022 – RW-JT >3

- Area of IP and Coworker at the start of carrying the Bit Breaker to the setback area

- IP Location at time of incident tripped over the tong pull line.



Injury - 3/23/2022 – RW-JT >3



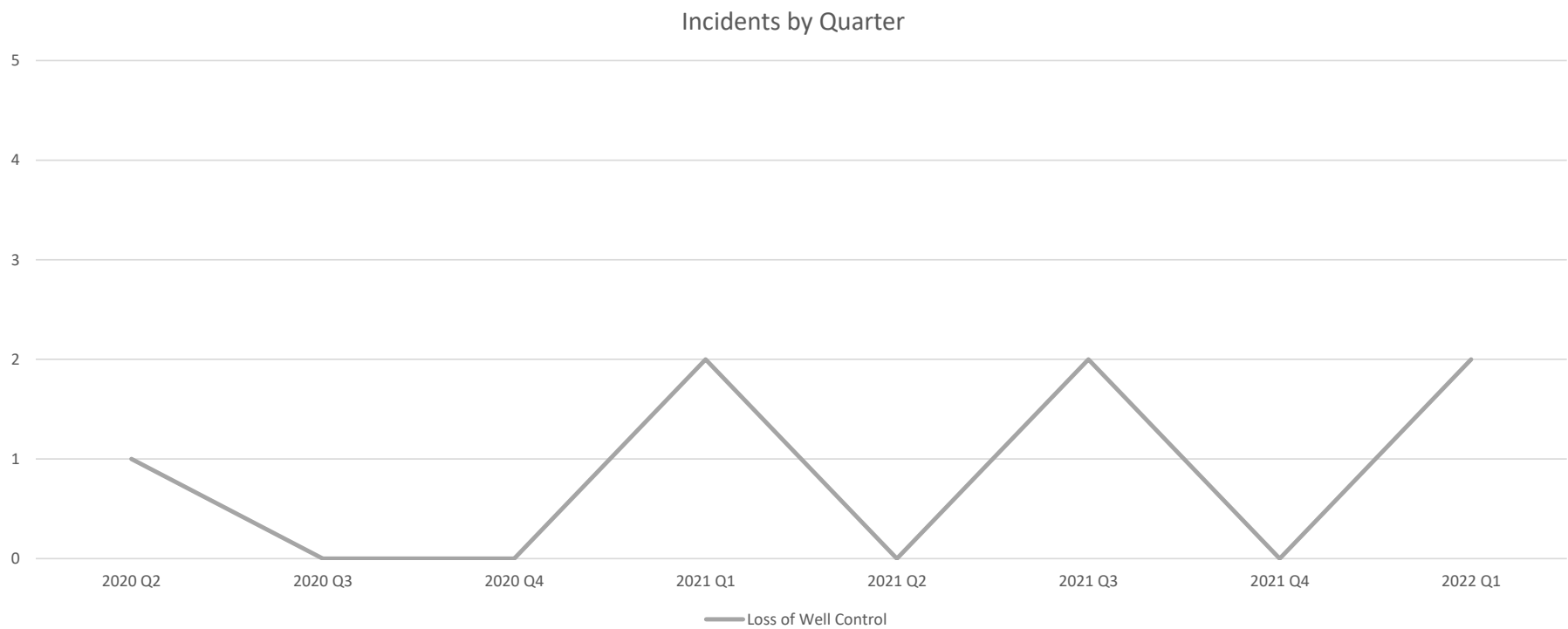
OCS Injuries – Take Away

Perceived low risk activities can still result in impactful injuries. Continually risk assess the work being undertaken, no matter if it permitted or non-permitted work.

Know your personal limits and stop before you reach your limit. Pause and ask for help before you are at your limit.



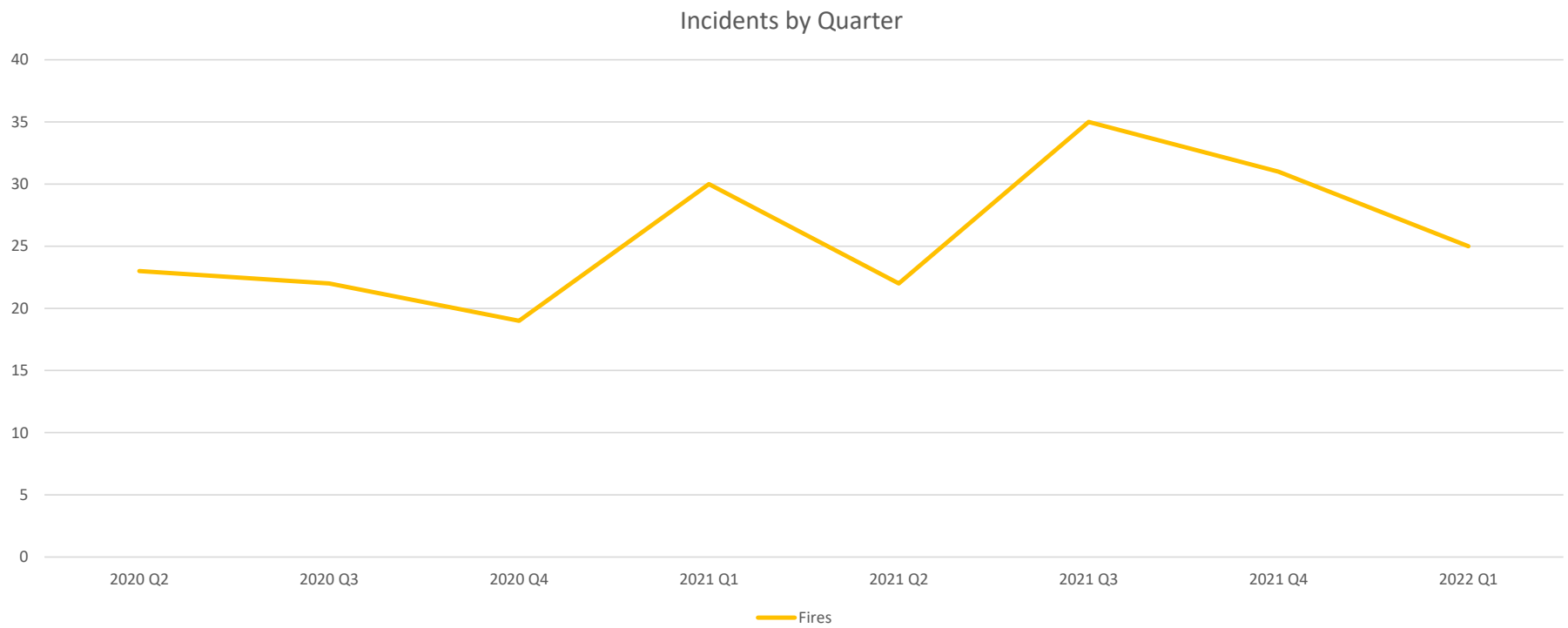
OCS Loss of Well Control Trend



Loss of Well Control – 2/8/22



OCS Fire Trend



Fire – 3/3/22

- 03:10 am, fire in the #3 generator engine room. The fire was contained to the room.
- Generator #3 engine threw a rod, causing oil to spray from engine, coming into contact with a hot surface, which ignited the fire.
- Fire alarm was sounded immediately, rig secured the well, and the platform ESD was activated.
- The crew fought the fire for 5 - 7 minutes. 14 fire extinguishers were brought to the scene, personnel used 11 to extinguish the fire.
- Fire spread to a stack of air filters which were difficult to extinguish.
- 03:23 am - the fire was extinguished



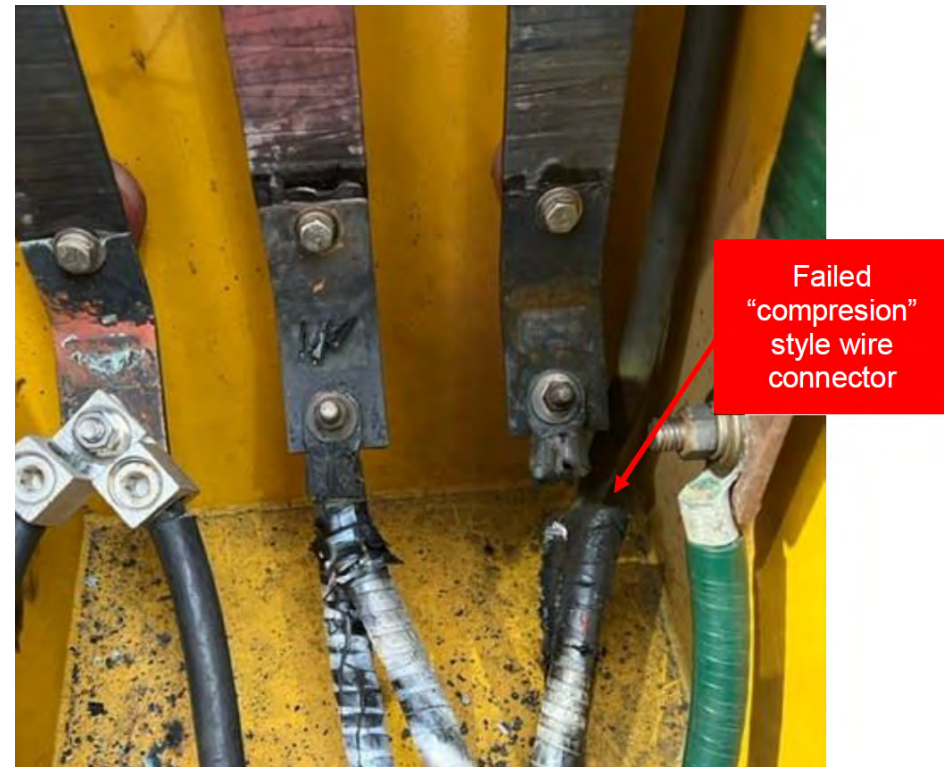
Fire – 3/3/22, continued

- Motorhand couldn't stop the engine from the engine room control panel, had to stop it from the VFD house.
- Lesson learned – don't store flammable materials (e.g. air filters) in engine room.
- No indication why the engine failed at that specific time. Engine had been serviced the previous day and no problems were noted.
- No evidence of deficient maintenance.



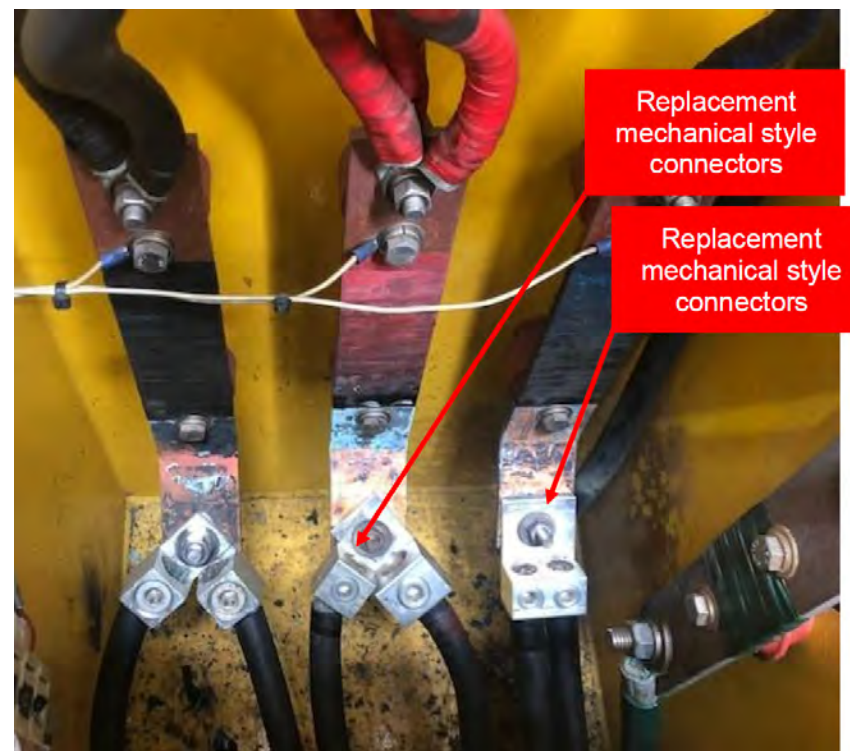
Fire – 3/9/22

- The lights in the living quarters began to flicker. The smoke alarm for the 3rd floor living quarters went into alarm status. Personnel responded and located an air handling fan motor that was smoking due to the variable voltage feed from the rental generator. The fan motor was disconnected and secured. The PIC immediately responded to the MCC and noticed that the rental generator was only producing 200V.
- Personnel opened the breaker for the rental generator, disconnecting power to the platform.

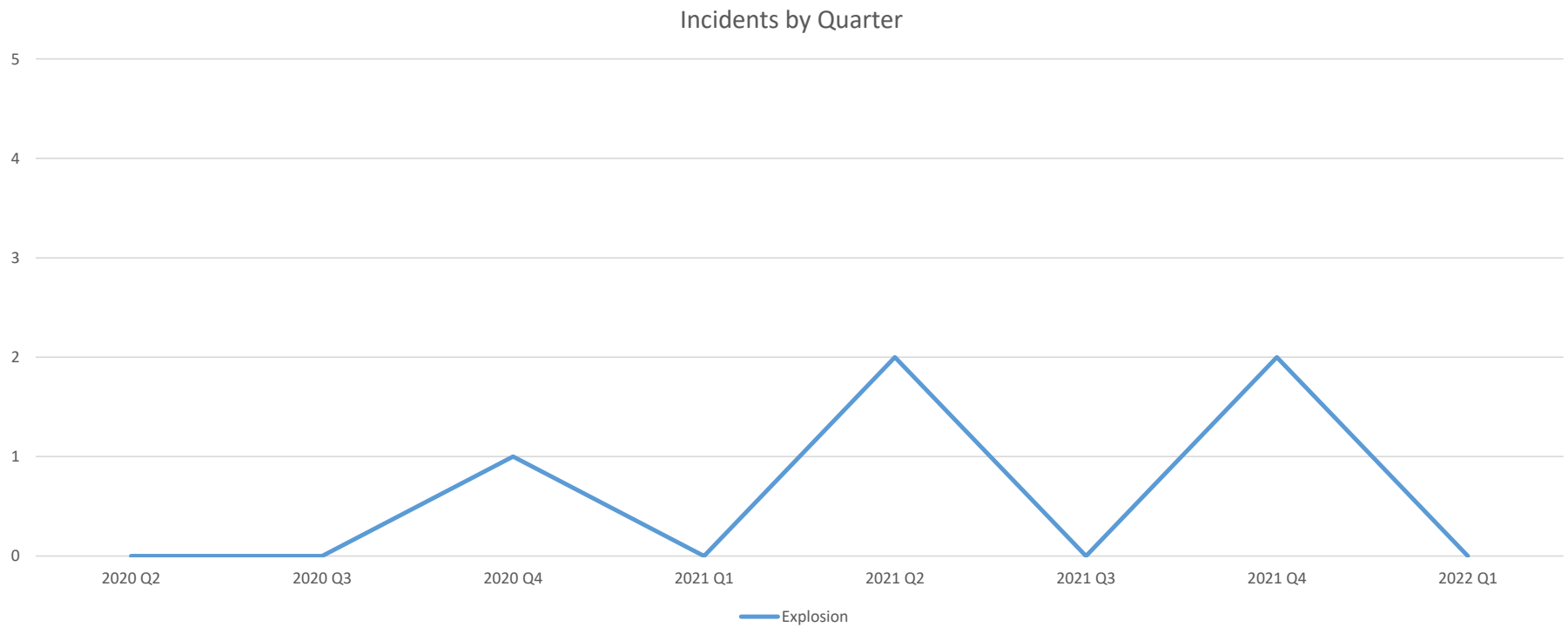


Fire – 3/9/22, continued

- Initial indications found that the cause of the incident was due to one of the cable leads failing at the terminal connection.
- Phase failure can cause motors to overheat.
- The electrician on board installed new mechanical connections to mitigate the issue and prevent reoccurrence.

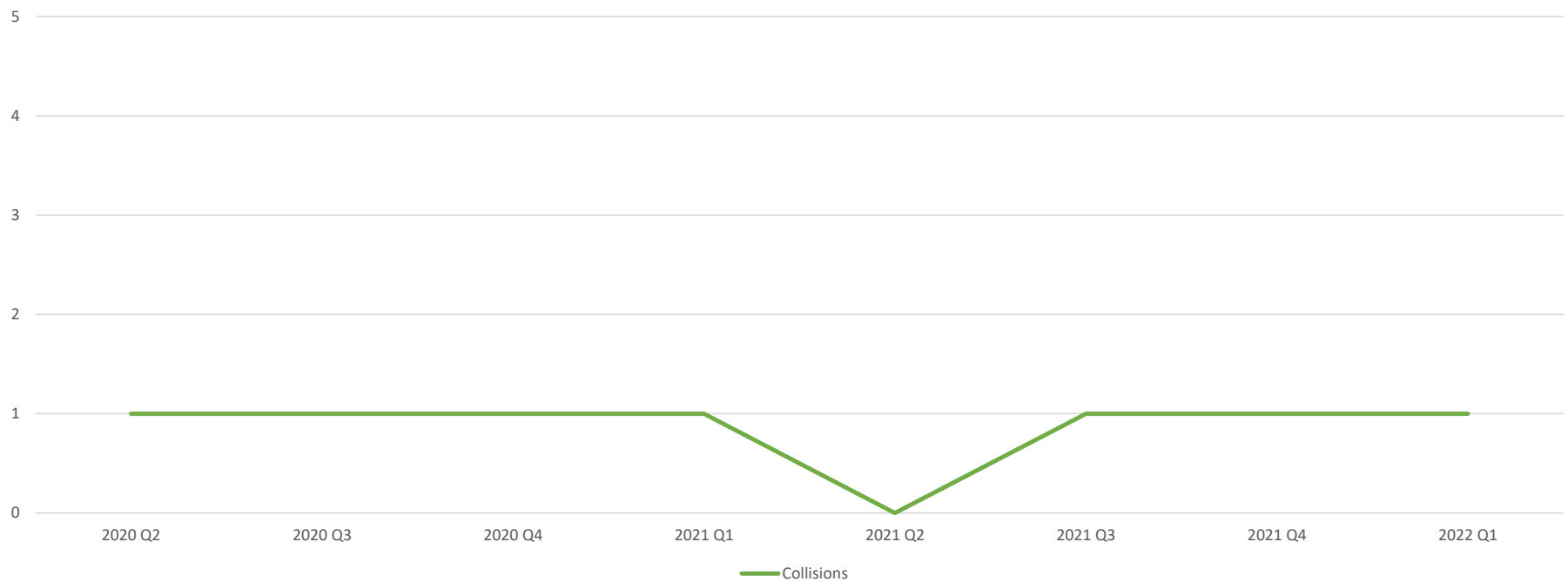


OCS Explosion Trend



OCS Collision Trend

Incidents by Quarter



Collision – 3/7/22

- Facility was struck by a M/V during the night.
 - Unmanned and out of service facility. All wells P/A'd, waiting to be permanently removed.
 - Operator notified the USCG of a non-functioning navigational aid on 7/8/21.



Collision – 4/18/22

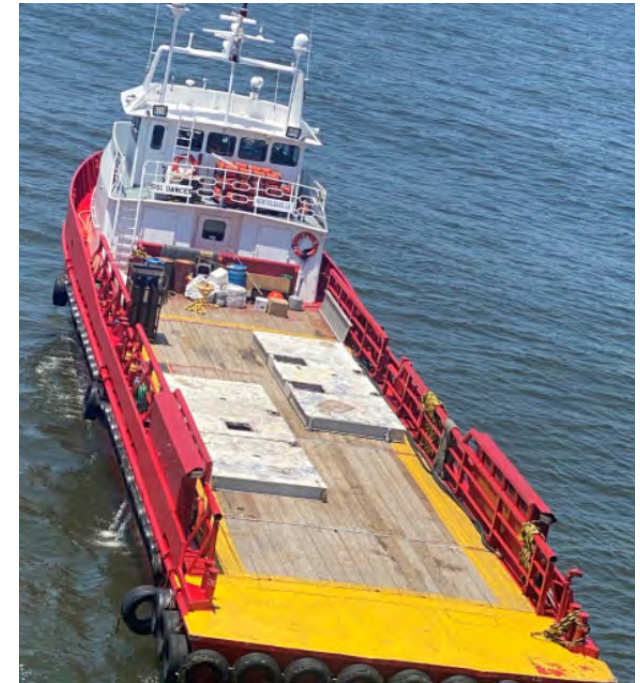


Operators were utilizing a field boat to make the visit; upon arrival they found the boat landing was missing from the facility.

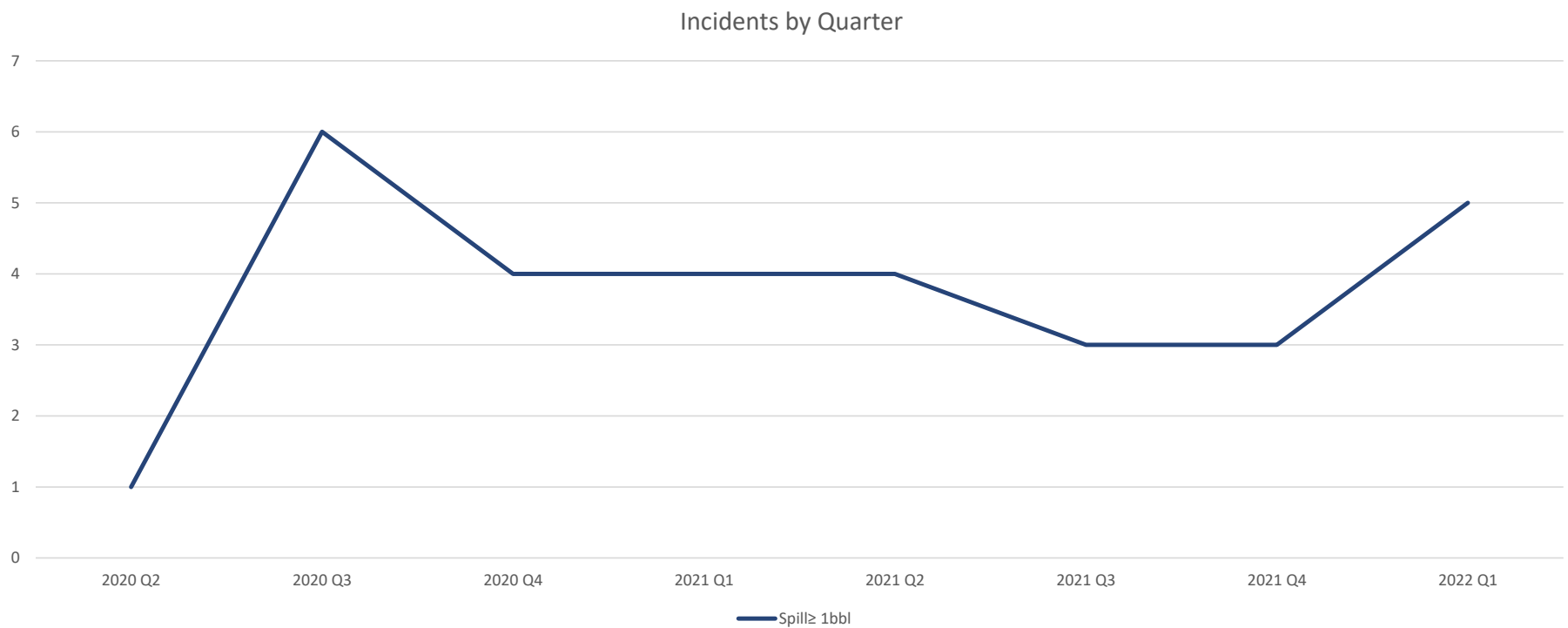
There was evidence that showed a probably vessel strike to the landing area.

Foghorn and Nav-Aid lights were verified to be working upon arrival. There was no evidence of any pollution.

Collision– 4/18/22 – Structural Damage



OCS Spills > 1 bbl Trend

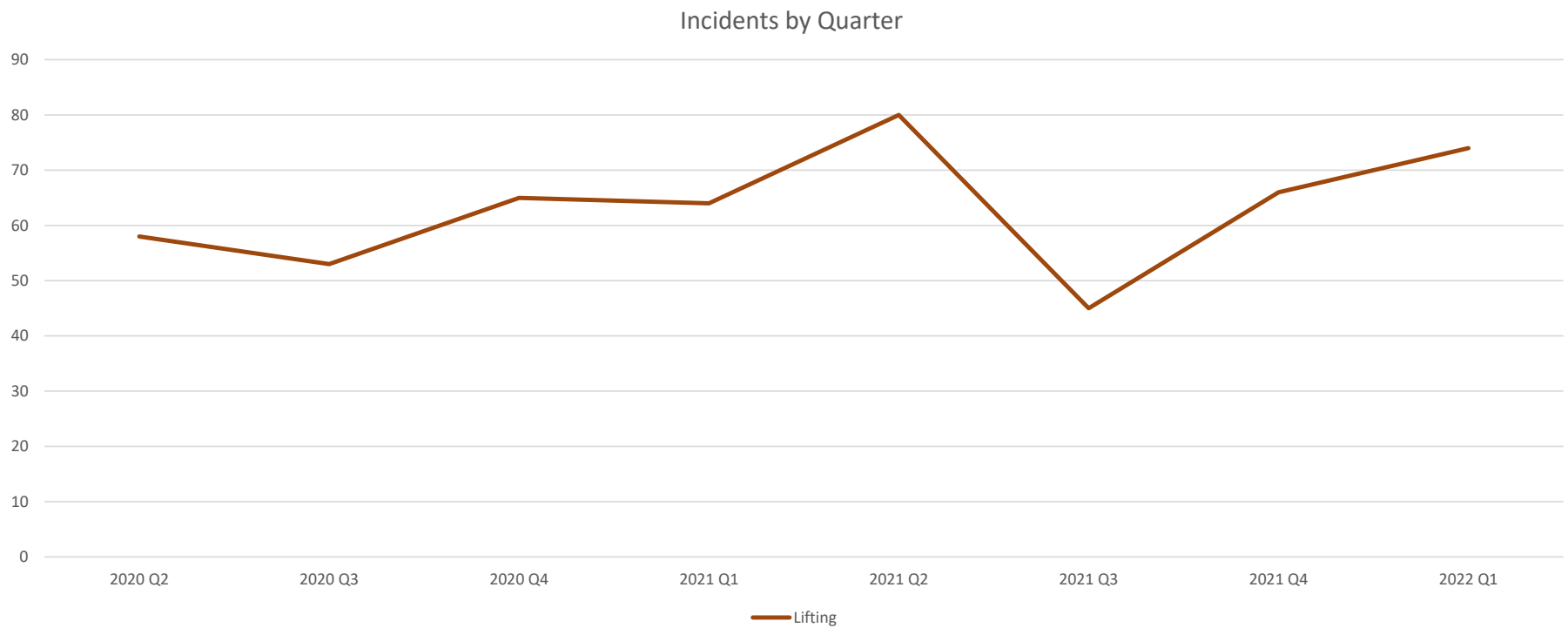


Spill >1 bbl – 2/25/22

- An estimate of 111 gallons of unrecoverable oil was discharged into the Gulf of Mexico through the platform's vent boom.



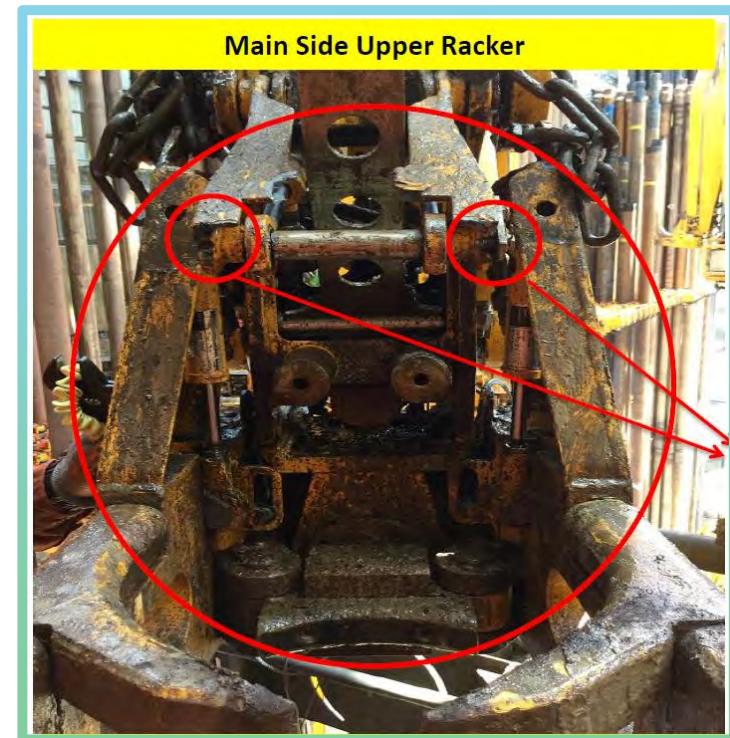
OCS Lifting Trend



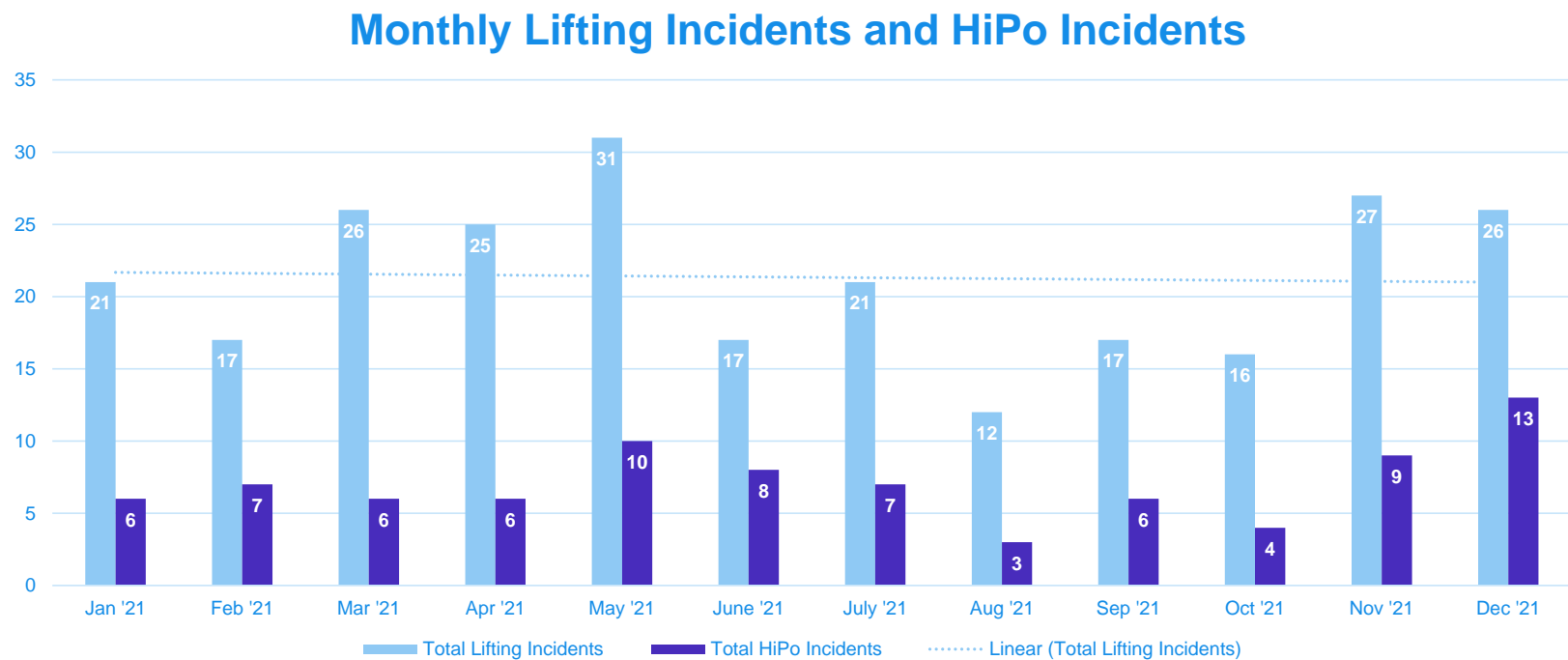
Lifting – 5/13/2022 – Crane Incident with Injury



Lifting – 4/5/2022 – Dropped Object

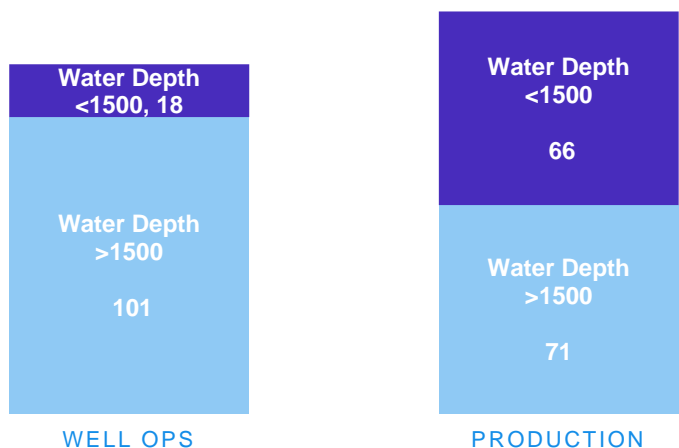


Lifting Analysis 2021



Lifting Analysis 2021

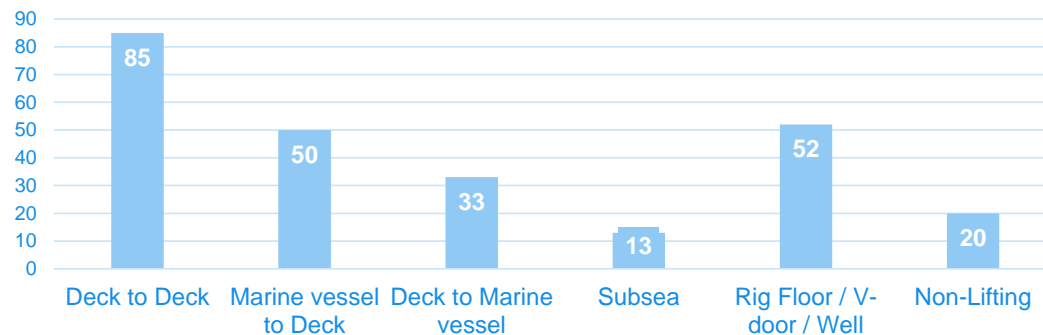
LIFTING INCIDENTS BY OPERATION



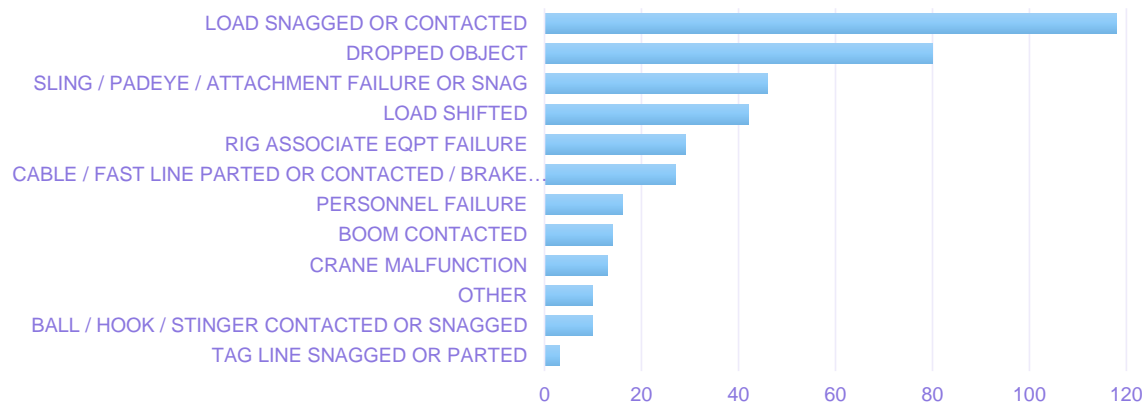
2021 Daily Average Active
MODU & Platform Rig Counts:
<1500' = 7
>1500' = 25

Production Facility Counts:
<1500' = 1773
>1500' = 50

LIFTING INCIDENTS BY TYPE OF LIFT

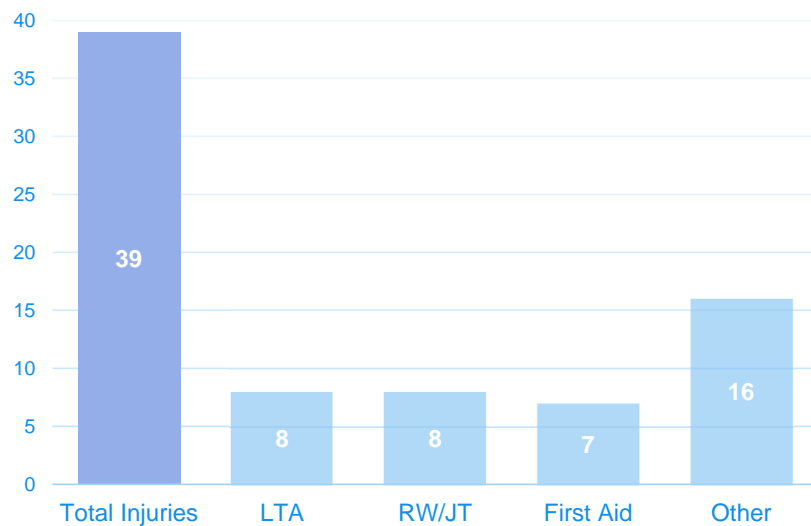


TYPES OF LIFTING FAILURES*

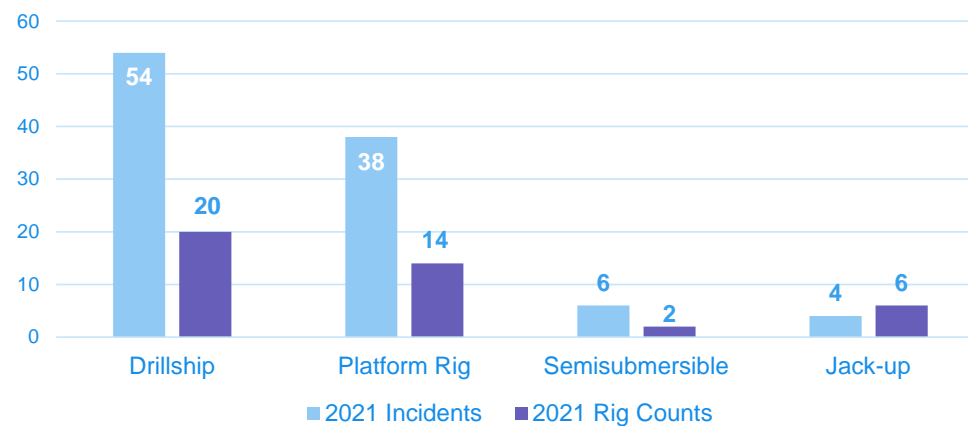


Lifting Analysis 2021

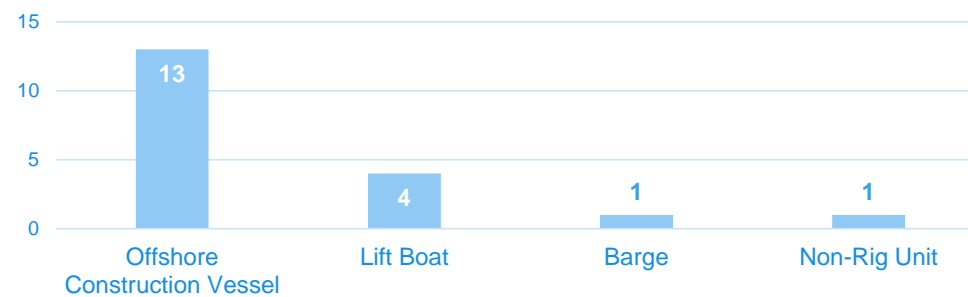
LIFTING INJURIES



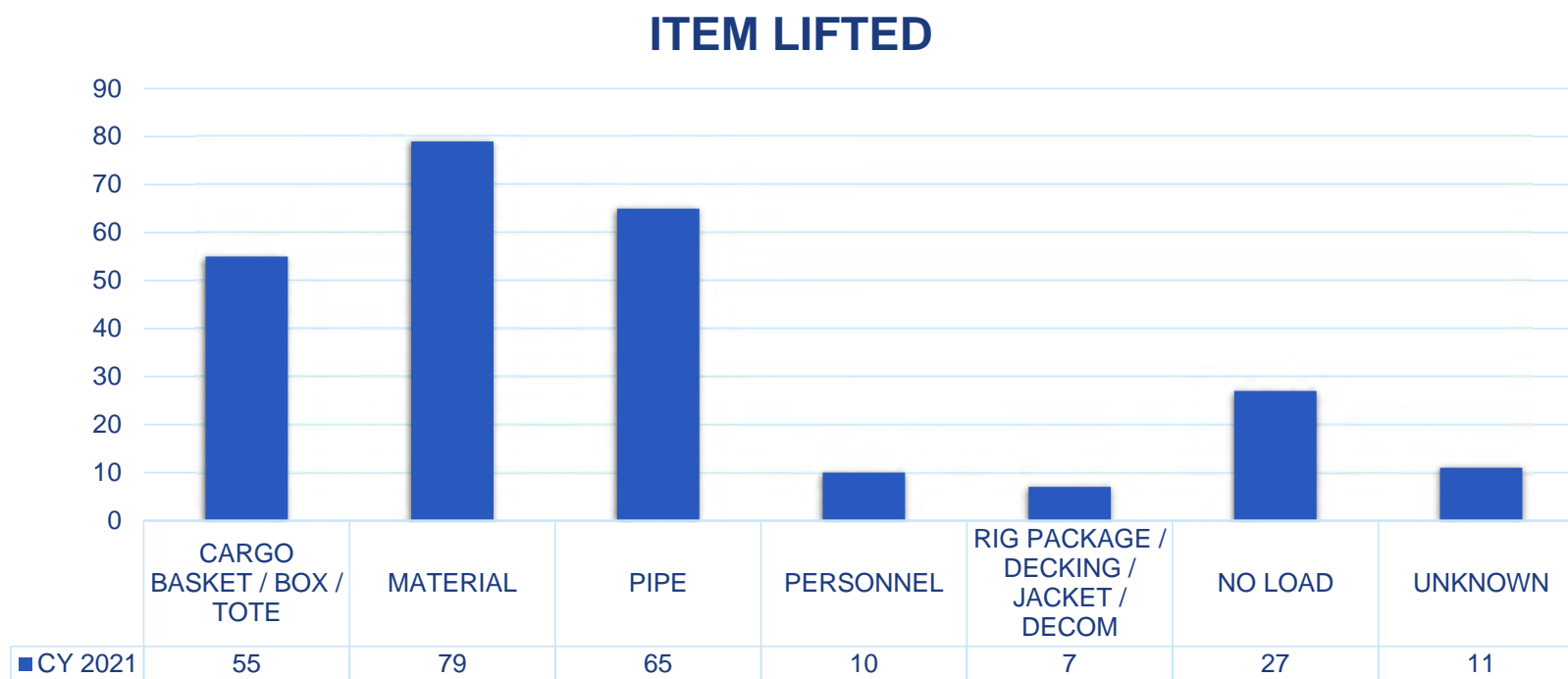
RIG TYPES



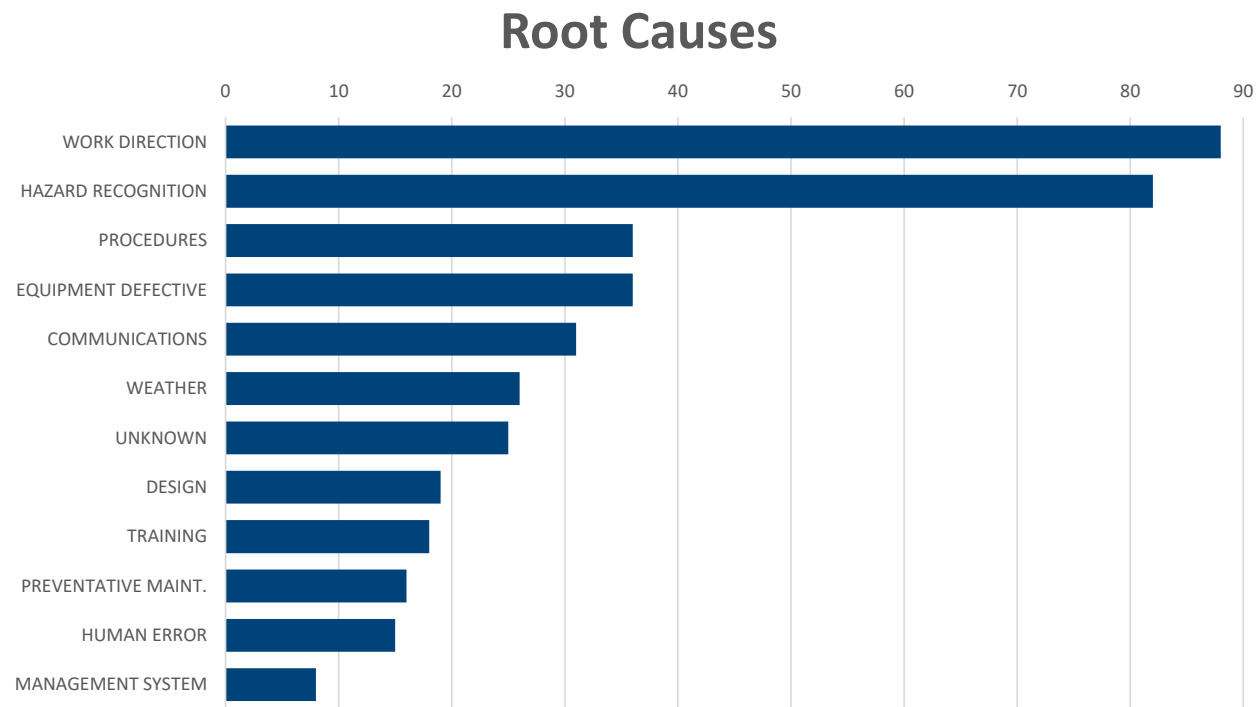
OTHER WELL OPERATIONS



Lifting Analysis 2021

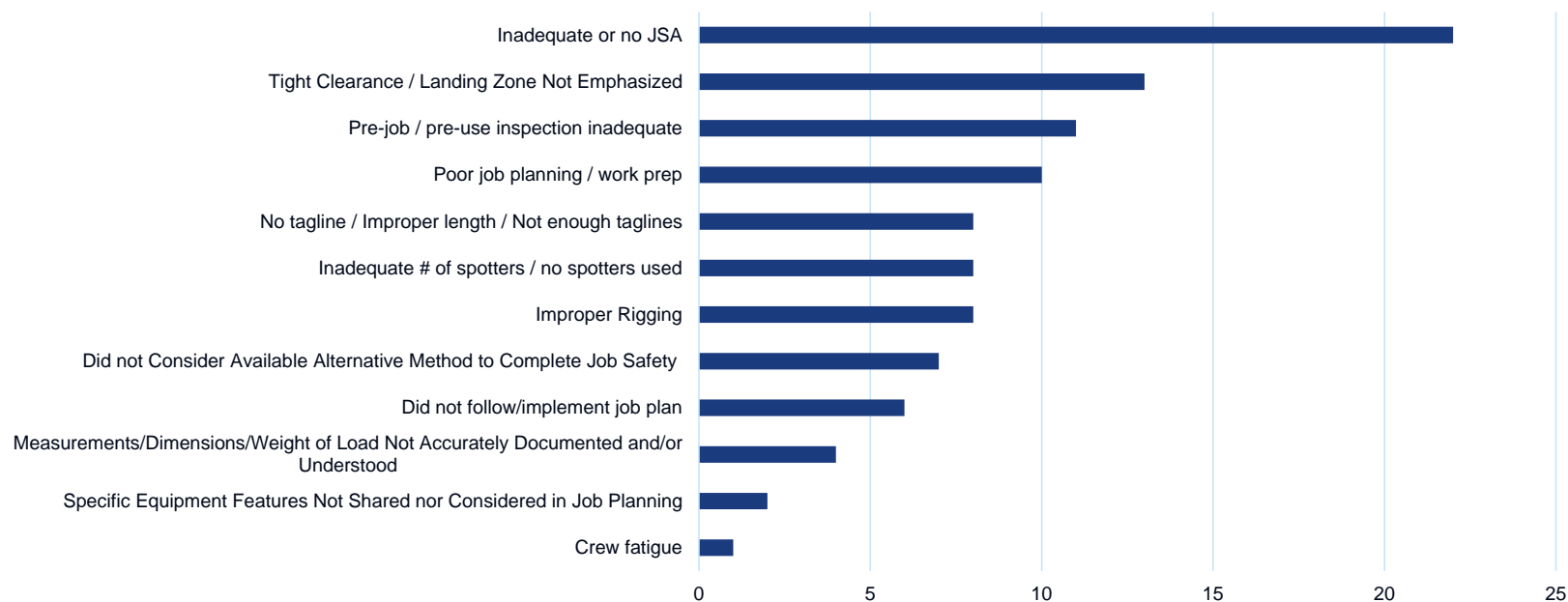


Lifting Analysis 2021



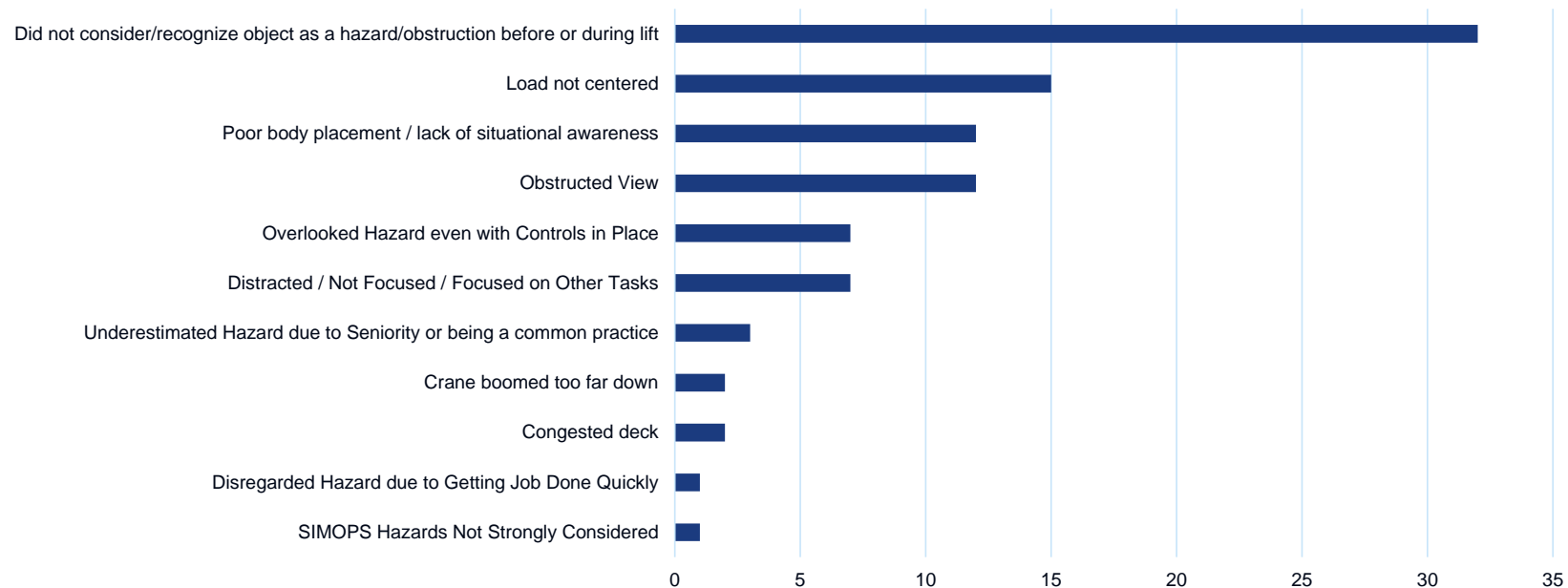
Lifting Analysis 2021

Work Direction Subcategories



Lifting Analysis 2021

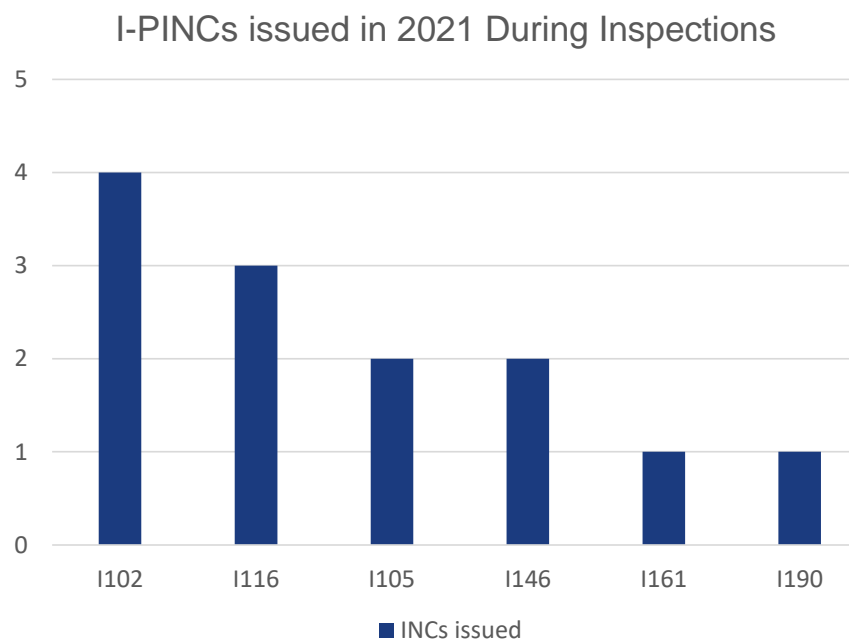
Hazard Recognition Subcategories



Lifting Analysis 2021 – INC analysis

- **13 total INCs**

- Four I-102s (Operating Practices)
- Three I-116s (A2B failures)
- Two I-105s (Deficiencies / Downgraded)



Lifting Analysis 2021 – Industry Recommendations

Hands-off Policies and Expectations

- No hands-on load when possible.
- Poor body placement (pinch points/line of fire).

Proper Oversight of Short Service Employees (SSEs)

- New employees.
- New to position employees.
- New to rig / facility.

Load and Lifting Equipment Inspections

- Inspect loads at dock prior to transporting to dock confirming weights, sizes, working limits, slings, shackles, thread protector condition, etc.
- Verify there are processes in place to confirm proper weights are being communicated from the dock to the facility prior to conducting lifts.
- Pre-use should verify all lifting equipment is up-to-date and rated for weight of load.
- Verify load, block, etc. are centered over the load prior to the lift

Lifting Analysis 2021 – Industry Recommendations

Continue to reiterate importance of red zones and responsibilities

- Re-evaluate red zones on periodic basis to ensure they remain adequate.
- Multiple serious injuries / fatalities avoided due to red zone adherence.

Industry and BSEE to improve incident reporting and review process

- Request industry provide more detail in final incident submittal
- BSEE point of emphasis not to prematurely finalize incident reports until all necessary information is included in submittal

Continue to Emphasize SWA

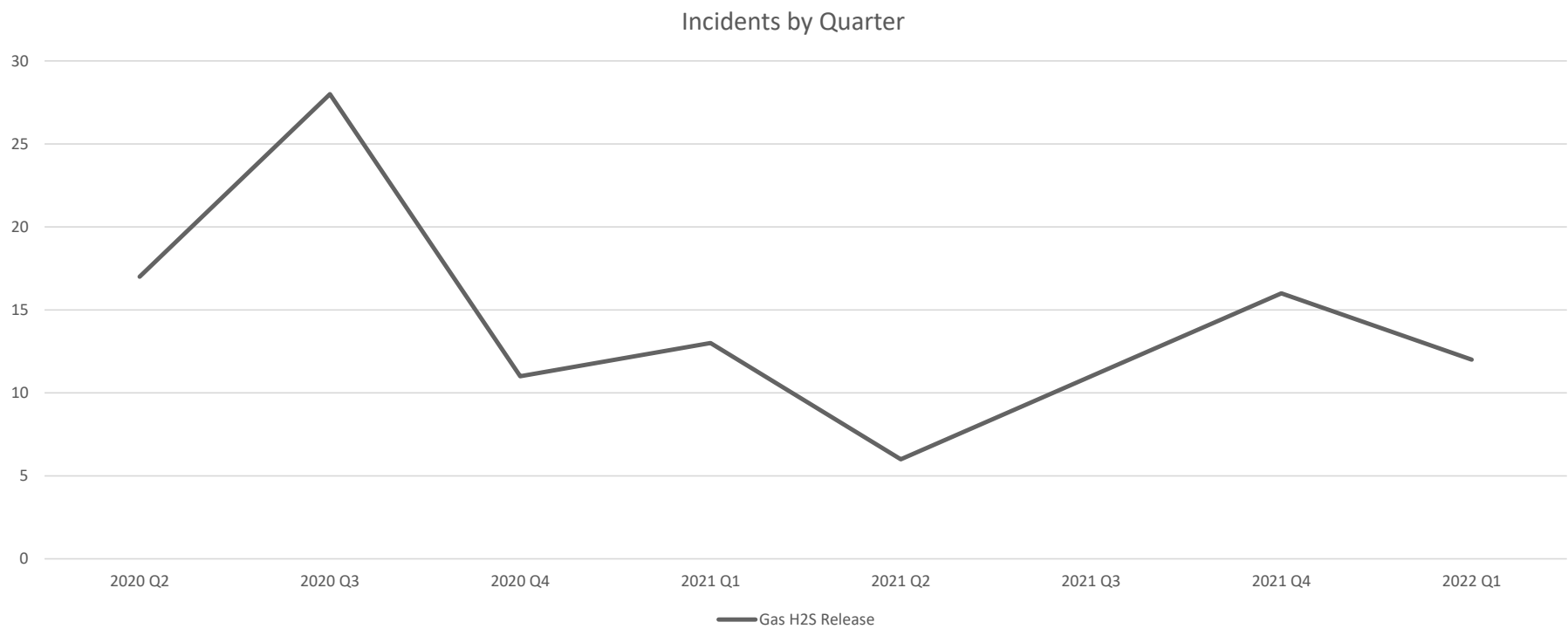
- Improve the application of SWA and associated UWA resumption of work when an incident occurs or when a new hazard is observed.
- Constantly monitor weather and sea state during lifting operations and use stop work when necessary.
 - Do not assume conditions remain same between each phase of the lift.



Lifting Analysis 2021 – Points of Emphasis

- Perceived low risk activities can still result in impactful injuries.
- Redundant lifts completed successfully does not mean the hazard is eliminated.
- Continually risk assess the work being undertaken, even if it's deemed routine.

OCS Gas Release Trend



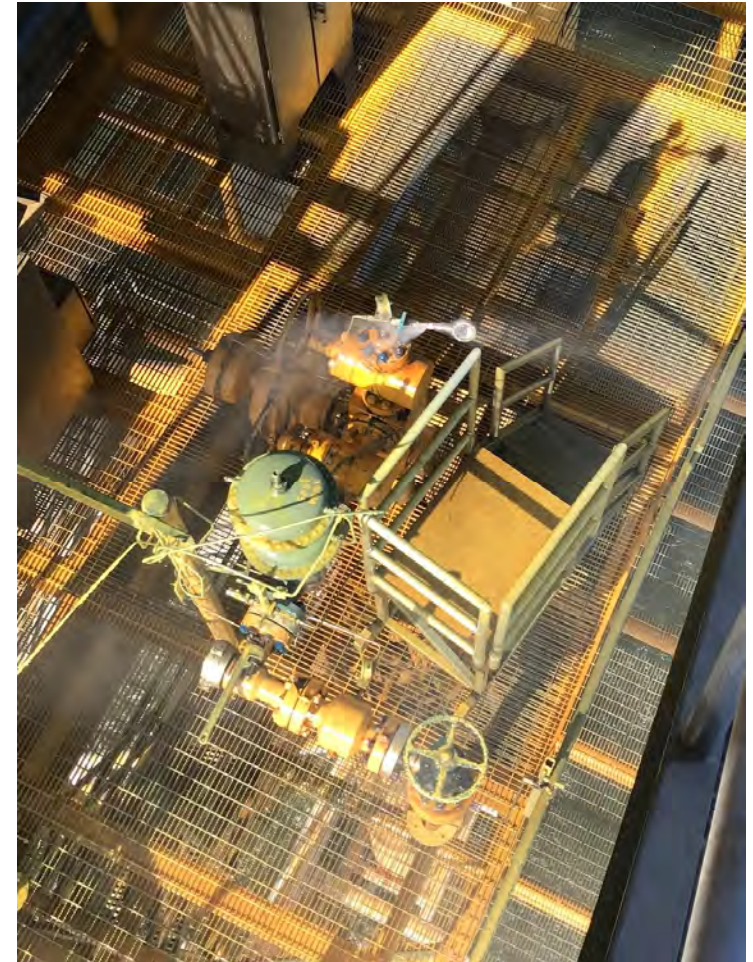
Gas Release - 4/8/22

- Sheen was visually observed from aircraft while in transit to another location. Sheen spanned 30-50 ft at the base of the facility stretching ~4500ft southeast.
- Large gas cloud
- Loop operators landed a few minutes later, took photos and stopped the leak via ESD on helideck.

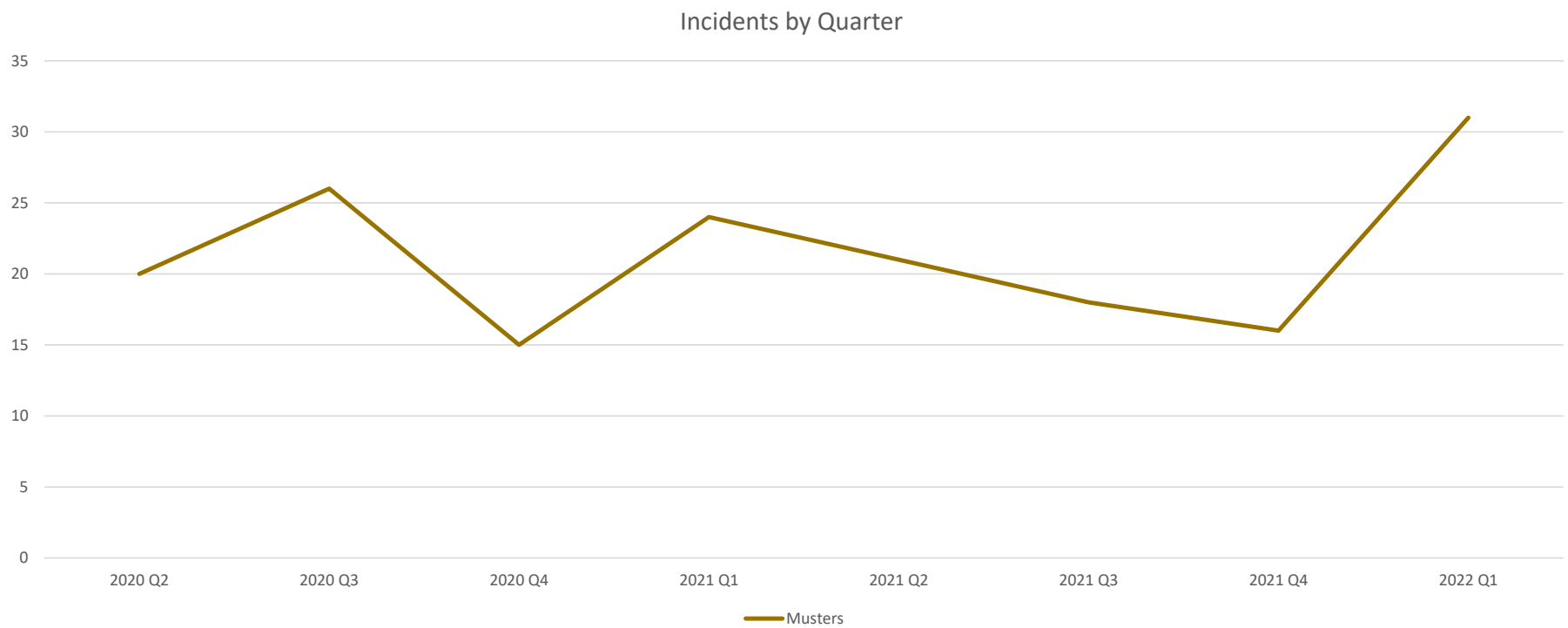


Gas Release - 4/8/22, ctd

- Leak caused by damaged quick connect tubing fitting
- Operator was/is in the process of installing remote shut in SCADA upgrade.
- Operator was initially alerted to the leak via radio chatter in Breton Sound area.
- Unclear when the leak started.



OCS Muster Trend



Focus is on preparation and sacrifice and effort...



**Thank you for all
you
do for America!**



Any Questions?

“To promote safety, protect the environment and conserve resources offshore through vigorous regulatory oversight and enforcement.”



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