IADC

IADC ISP PROGRAM

2018

Summary of Occupational Incidents
(Asia Pacific Water Totals)

Issued 15 June 2019
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IADC 2018 Asia Pacific Water Totals (Table 1)

<table>
<thead>
<tr>
<th>Totals</th>
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<tbody>
<tr>
<td>Total Man-hours</td>
<td>35,011,306</td>
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<tr>
<td>Total Medical Treatment Incidents</td>
<td>16</td>
</tr>
<tr>
<td>Total Restricted Work Incidents</td>
<td>11</td>
</tr>
<tr>
<td>Total Lost Time Incidents</td>
<td>11</td>
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<tr>
<td>Total Fatalities</td>
<td>0</td>
</tr>
<tr>
<td>Total Recordables</td>
<td>38</td>
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<table>
<thead>
<tr>
<th>Incidence Rates</th>
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<tbody>
<tr>
<td>MTO Incidence Rate</td>
<td>0.09</td>
</tr>
<tr>
<td>RWC Incidence Rate</td>
<td>0.06</td>
</tr>
<tr>
<td>LTI Incidence Rate</td>
<td>0.06</td>
</tr>
<tr>
<td>LTI Frequency Rate</td>
<td>0.31</td>
</tr>
<tr>
<td>DART Incidence Rate</td>
<td>0.13</td>
</tr>
<tr>
<td>DART Frequency Rate</td>
<td>0.63</td>
</tr>
<tr>
<td>Recordable Incidence Rate</td>
<td>0.22</td>
</tr>
<tr>
<td>Recordable Frequency Rate</td>
<td>1.09</td>
</tr>
</tbody>
</table>

MEDICAL TREATMENT INCIDENCE RATE = MTOs X 200,000 / MANHOURS (LTIs NOT INCLUDED)
RESTRICTED WORK INCIDENCE RATE = RWCs X 200,000 / MANHOURS (LTIs NOT INCLUDED)
LOST TIME INCIDENCE RATE = (LTIs+FTLs) X 200,000 / MANHOURS
LOST TIME FREQUENCY RATE = (LTIs+FTLs+RWCs) X 1,000,000 / MANHOURS
DART INCIDENCE RATE = (LTIs+FTLs+RWCs) X 200,000 / MANHOURS
DART INCIDENCE RATE = (LTIs+FTLs+RWCs) X 1,000,000 / MANHOURS
RECORDABLE INCIDENCE RATE = RECORDABLES X 200,000 / MANHOURS
RECORDABLE FREQUENCY RATE = RECORDABLES X 1,000,000 / MANHOURS

Companies Reporting:    Water – 28

Asia Pacific Water Incidence Rates vs Man-hours (Figure 1)
IADC 2018 Asia Pacific Water Charts
Asia Pacific Water Total Lost Time Incidents by Month (Chart 1)
Based on 10 Incidents

- May: 40.00%
- September: 20.00%
- December: 10.00%
- November: 10.00%
- January: 10.00%
- February: 10.00%
Asia Pacific Water Total Recordable Incidents by Month (Chart 2)
Based on 33 Incidents

- December 9.09%
- January 9.09%
- February 9.09%
- March 3.03%
- April 3.03%
- May 24.24%
- June 3.03%
- July 9.09%
- August 6.06%
- September 12.12%
- October 6.06%
- November 6.06%
Asia Pacific Water Total Lost Time Incidents by Occupation (Chart 3)
Based on 10 Incidents

- Subsea Engineer: 10.00%
- Crane / Forklift Operator: 10.00%
- Barge Engineer/Ballast Control Op.: 10.00%
- Mechanic: 10.00%
- Roustabout (Lease Hand): 20.00%
- Derrickman: 10.00%
- Floorman: 30.00%
Asia Pacific Water Total Recordable Incidents by Occupation (Chart 4)
Based on 33 Incidents

- Catering / Camp Personnel: 3.03%
- Subsea Engineer: 3.03%
- Mechanic: 9.09%
- Motorman: 3.03%
- Toolpusher (Asst.TP, Tourpusher): 6.06%
- Driller (Asst. Dr.): 3.03%
- Derrickman: 12.12%
- Crane / Forklift Operator: 3.03%
- Barge Engineer/Ballast Control Op.: 3.03%
- Mechanics Super: 3.03%
- Roustabout (Lease Hand): 24.24%
- Floorman: 27.27%
Asia Pacific Water Total Lost Time Incidents by Body Part (Chart 5)
Based on 10 Incidents

- Hand(s) / Wrist(s): 50.00%
- Trunk/Torso (chest, abdomen, groin): 10.00%
- Head: 20.00%
- Feet/Ankles: 20.00%
Asia Pacific Water Total Recordable Incidents by Body Part (Chart 6)
Based on 33 Incidents

- Feet/Ankles: 15.15%
- Finger(s): 39.39%
- Hand(s) / Wrist(s): 24.24%
- Arm(s): 3.03%
- Trunk/Torso (chest, abdomen, groin): 3.03%
- Head: 15.15%
Asia Pacific Water Total Lost Time Incidents by Incident Type (Chart 7)
Based on 10 Incidents

- Struck Against: 40.00%
- Struck By: 30.00%
- Caught Between/In: 20.00%
- Slip/Fall: Same Level: 10.00%
Asia Pacific Water Total Recordable Incidents by Incident Type (Chart 8)
Based on 33 Incidents

- Caught Between/In: 39.39%
- Struck By: 18.18%
- Struck Against: 12.12%
- Slip/Fall: Same Level: 6.06%
- Slip/Fall: Different Level: 12.12%
- Sprain: 3.03%
- Cut: 9.09%
Asia Pacific Water Total Lost Time Incidents by Equipment (Chart 9)
Based on 9 Incidents

- BOP Stack (well head, tree): 11.11%
- Crane: 11.11%
- Tongs: 11.11%
- Engines/Pumps/Machinery: 22.22%
- Pipes/Collars/Tubulars/Csg.: 44.44%
- Tongs: 11.11%
Asia Pacific Water Total Recordable Incidents by Equipment (Chart 10)
Based on 28 Incidents

- Engine/Pumps/Machinery: 17.86%
- Slings (rope, cable, chain, web): 10.71%
- Pipes/Collars/Tubulars/Casing: 17.86%
- BOP Stack (well head, tree): 10.71%
- Crane: 10.71%
- Material: 3.57%
- Stairs: 3.57%
- Ladders: 3.57%
- Decks (grating, walkway): 3.57%
- Tongs: 7.14%
- Elevators: 3.57%
- Iron Roughneck, Pipe Spinner, etc.: 3.57%
- Winch Truck: 3.57%
Asia Pacific Water Total Lost Time Incidents by Operation (Chart 11)  
Based on 10 Incidents

- Equipment Repairs or Maintenance: 40.00%
- Laying Down/Picking up Tubulars: 30.00%
- Material Handling: Crane/Cherry Picker: 10.00%
- Running Casing/Tubing: 10.00%
- Training: 10.00%
Asia Pacific Water Total Recordable Incidents by Operation (Chart 12)
Based on 32 Incidents

- Routine Drilling Oper.: 21.88%
- Laying Down/Picking up Tubulars: 12.50%
- Running Casing/Tubing: 6.25%
- Laying Down/Picking up Tubulars: 12.50%
- Rigging Up/Down: 9.38%
- BOP Stack Install/Maintenance: 9.38%
- Material Handling: Manual: 3.13%
- Material Handling: Crane/Cherry Picker: 12.50%
- Equipment Repairs or Maintenance: 18.75%
- Walking: 3.13%
- Training: 3.13%
Asia Pacific Water Total Lost Time Incidents by Location (Chart 13)
Based on 10 Incidents

- Derrick/Mast: 30.00%
- Cellar/Sub/Moonpool: 20.00%
- Catwalk/V-door: 20.00%
- Pipe Rack/ Pipe Deck: 10.00%
- Cherry Picker/Crane: 10.00%
- Shale Shaker: 10.00%
Asia Pacific Water Total Recordable Incidents by Location (Chart 14)
Based on 31 Incidents

- Shale Shaker: 3.23%
- BOP Stack / well head / tree Area: 3.23%
- Derrick / Mast: 16.13%
- Living / Camp Areas / Accommodations: 6.45%
- Cellar / Sub / Moonpool: 9.68%
- Mud Pump Room: 3.23%
- Cherry Picker / Crane: 6.45%
- Rig Floor: 22.58%
- Pipe Rack / Pipe Deck: 6.45%
- Catwalk / V-door: 16.13%
- Rig Pad / Rig Decks: 6.45%
- Shale Shaker: 3.23%
- BOP Stack / well head / tree Area: 3.23%
- Derrick / Mast: 16.13%
Asia Pacific Water Total Lost Time Incidents by Time in Service (Chart 15)
Based on 10 Incidents

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>0 mo. &lt; 3 mos.</td>
<td>10.00%</td>
</tr>
<tr>
<td>&gt;3 mos. &lt; 6 mos.</td>
<td>20.00%</td>
</tr>
<tr>
<td>&gt;1 yr. &lt; 5 yrs.</td>
<td>40.00%</td>
</tr>
<tr>
<td>&gt;5 yrs. &lt; 10 yrs.</td>
<td>10.00%</td>
</tr>
<tr>
<td>10+ yrs.</td>
<td>20.00%</td>
</tr>
<tr>
<td>&gt;3 mos. &lt; 6 yrs.</td>
<td>20.00%</td>
</tr>
</tbody>
</table>

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Asia Pacific Water Total Recordable Incidents by Time in Service (Chart 16)
Based on 28 Incidents

- 10+ yrs.: 7.14%
- >5 yrs. < 10 yrs.: 21.43%
- >1 yr. < 5 yrs.: 32.14%
- >6 mos. < 1 yr.: 10.71%
- >3 mos. < 6 mos.: 10.71%
- >0 mo. < 3 mos.: 17.86%
Asia Pacific Water Total Lost Time Incidents by Time of Day (Chart 17)
Based on 10 Incidents
Asia Pacific Water Total Recordable Incidents by Time of Day (Chart 18)
Based on 30 Incidents
Asia Pacific Water Total Lost Time Incidents by Age (Chart 19)
Based on 9 Incidents

26 - 35
66.67%

18 - 25
11.11%

46 - 55
11.11%

36 - 45
11.11%

26 - 35
66.67%

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Asia Pacific Water Total Recordable Incidents by Age (Chart 20)
Based on 23 Incidents

- 26 - 35: 69.57%
- 18 - 25: 4.35%
- 56 - 65: 4.35%
- 46 - 55: 8.70%
- 36 - 45: 13.04%