IADC

IADC ISP PROGRAM

2018

Summary of Occupational Incidents
(Middle East Land Totals)

Issued 15 June 2019
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IADC 2018 Middle East Land Totals (Table 1)

<table>
<thead>
<tr>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Man-hours</td>
</tr>
<tr>
<td>Total Medical Treatment Incidents</td>
</tr>
<tr>
<td>Total Restricted Work Incidents</td>
</tr>
<tr>
<td>Total Lost Time Incidents</td>
</tr>
<tr>
<td>Total Fatalities</td>
</tr>
<tr>
<td>Total Recordables</td>
</tr>
</tbody>
</table>

- MTO Incidence Rate: 0.09
- RWC Incidence Rate: 0.12
- LTI Incidence Rate: 0.07
- LTI Frequency Rate: 0.36
- DART Incidence Rate: 0.19
- DART Frequency Rate: 0.96
- Recordable Incidence Rate: 0.28
- Recordable Frequency Rate: 1.41

Companies Reporting: Land – 19

Medical Treatment Incidence Rate = MTOs X 200,000
Restricted Work Incidence Rate = RWCs X 200,000
Lost Time Incidence Rate = LTIs + FTLs X 200,000
DART Incidence Rate = LTIs + RWC X 200,000
Recordable Incidence Rate = RCRD X 200,000

Lost Time Frequency Rate = LTIs + FTLs X 1,000,000
DART Frequency Rate = LTIs + RWC X 1,000,000
Recordable Frequency Rate = RCRD X 1,000,000

Middle East Land Total LTI & Recordable Incidence Rates vs Man-hours (Figure 1)
IADC 2018 Middle East Land Charts
Middle East Land Total Lost Time Incidents by Month (Chart 1)
Based on 31 Incidents

- December 6.45%
- October 3.23%
- September 16.13%
- August 19.35%
- July 9.68%
- June 3.23%
- May 9.68%
- April 16.13%
- March 9.68%
- February 6.45%
- January 9.68%

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Middle East Land Total Recordable Incidents by Month (Chart 2)
Based on 132 Incidents

- December: 9.85%
- November: 6.06%
- October: 6.82%
- September: 12.12%
- August: 9.85%
- July: 9.85%
- June: 5.30%
- May: 9.09%
- April: 11.36%
- March: 6.06%
- February: 6.06%
- January: 7.58%
Middle East Land Total Lost Time Incidents by Occupation (Chart 3)
Based on 31 Incidents

- Floorman: 35.48%
- Floorman: 35.48%
- Roustabout (Lease Hand): 32.26%
- Mechanic: 9.68%
- Electrician: 3.23%
- Toolpusher (Asst. TP, Tourpusher): 3.23%
- Driller (Asst. Dr.): 9.68%
- Mechanic: 9.68%
- Truck Driver / Pusher: 9.68%
- Derrickman: 3.23%

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Middle East Land Total Recordable Incidents by Occupation (Chart 4)
Based on 132 Incidents

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Truck Driver / Pusher</td>
<td>4.55%</td>
</tr>
<tr>
<td>Superintendent/other Supervisors</td>
<td>0.76%</td>
</tr>
<tr>
<td>Mechanic</td>
<td>8.33%</td>
</tr>
<tr>
<td>Electrician</td>
<td>3.79%</td>
</tr>
<tr>
<td>Toolpusher (Asst.TP, Tourpusher)</td>
<td>3.03%</td>
</tr>
<tr>
<td>Driller (Asst. Dr.)</td>
<td>9.85%</td>
</tr>
<tr>
<td>Derrickman</td>
<td>6.33%</td>
</tr>
<tr>
<td>Rig Helper</td>
<td>3.03%</td>
</tr>
<tr>
<td>Maintenance Super</td>
<td>1.52%</td>
</tr>
<tr>
<td>Welder</td>
<td>1.52%</td>
</tr>
<tr>
<td>Marine Crew</td>
<td>0.76%</td>
</tr>
<tr>
<td>Catering / Camp Personnel</td>
<td>0.76%</td>
</tr>
<tr>
<td>Floorman</td>
<td>31.82%</td>
</tr>
<tr>
<td>Roustabout (Lease Hand)</td>
<td>21.97%</td>
</tr>
<tr>
<td>Maintenance Super</td>
<td>1.52%</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Middle East Land Total Lost Time Incidents by Body Part (Chart 5)

Based on 31 Incidents

- Finger(s): 19.35%
- Hand(s) / Wrist(s): 6.45%
- Arm(s): 6.45%
- Trunk/Torso (chest, abdomen, groin): 6.45%
- Back: 3.23%
- Head: 9.68%
- Toes: 3.23%
- Feet/Ankles: 19.35%
- Leg(s): 25.81%
- Finger(s): 19.35%
- Hand(s) / Wrist(s): 6.45%
- Arm(s): 6.45%
- Trunk/Torso (chest, abdomen, groin): 6.45%
- Back: 3.23%
- Head: 9.68%
- Toes: 3.23%
- Feet/Ankles: 19.35%
- Leg(s): 25.81%
Middle East Land Total Recordable Incidents by Body Part (Chart 6)
Based on 132 Incidents

- Finger(s) 41.67%
- Hand(s) / Wrist(s) 12.12%
- Arm(s) 5.30%
- Head 12.88%
- Back 0.76%
- Trunk/Torso (chest, abdomen, groin) 3.79%
- Legs 8.33%
- Feet/Ankles 9.09%
- Chest/Abdomen/Groin 3.79%
- Lungs/Respiratory 1.52%
- Eyes (Eyelid) 2.27%
- Toes 0.76%
- Shoulders 0.76%
- Knee(s) 0.76%
- Shoulder(s) 0.76%

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Middle East Land Total Lost Time Incidents by Incident Type (Chart 7)
Based on 31 Incidents

- Struck By: 51.61%
- Caught Between/In: 19.35%
- Slip/Fall: Different Level: 22.58%
- Slip/Fall: Same Level: 6.45%
Middle East Land Total Recordable Incidents by Incident Type (Chart 8)
Based on 132 Incidents

- Struck By: 34.85%
- Caught Between/In: 38.64%
- Struck Against: 4.55%
- Slip/Fall: Same Level: 3.03%
- Slip/Fall: Different Level: 6.82%
- Strain/Overexertion: 1.52%
- Contact With Chemicals/Fluids: 1.52%
- Flame/heat/steam (contact/exposed): 0.76%
- Cut: 4.55%
- Exposure to Gas: 0.76%
- Heat Exhaustion/Heat Stroke: 0.76%
- Caught On: 0.76%
- Vehicle: 1.52%
- Exposed to Gas: 0.76%
- Cut: 4.55%
- Struck By: 34.85%
Middle East Land Total Lost Time Incidents by Equipment (Chart 9)
Based on 31 Incidents

- Engines/Pumps/Machinery: 6.45%
- Forklift: 12.90%
- Ladders: 6.45%
- Car, truck, bus: 3.23%
- Pressure Hoses/Lines: 19.35%
- Material: 12.90%
- BOP Stack (well head, tree): 3.23%
- Iron Roughneck, Pipe Spinner, etc.: 3.23%
- Pipes/Collars/Tubulars/Csg.: 6.45%
- Cathead/Drawworks: 6.45%
- Elevators: 6.45%
- Slings (rope, cable, chain, web): 3.23%
- Iron Roughneck, Pipe Spinner, etc.: 3.23%
- Elevators: 6.45%
- Car, truck, bus: 3.23%
Middle East Land Total Recordable Incidents by Equipment (Chart 10)
Based on 131 Incidents

- Rig Floor Winch/Deck Winch (air/hydraulic): 1.53%
- Stairs: 0.76%
- Crane: 0.76%
- Slings (rope, cable, chain, web): 3.05%
- Cathead/Drawworks: 3.05%
- Pipes/Collars/Tubulars/Csg.: 16.03%
- Welding, Cutting, Grinding Equipment: 0.76%
- Chemicals (sack, drum, pail, bulk hopper): 1.53%
- Iron Roughneck, Pipe Spinner, etc.: 0.76%
- Slips (drill collar clamp): 1.53%
- Elevators: 3.82%
- Tongs: 8.40%
- Forklift: 6.11%
- Material: 7.63%
- BOP Stack (well head, tree): 6.11%
- Pressure Hoses/Lines: 5.34%
- Car, truck, bus: 5.34%
- Engines/Pumps/Machinery: 9.92%
- Hand Tools: Manual: 9.92%
- Hand Tools: Power: 1.53%
- Ladders: 2.29%
- Decks (grating, walkway): 3.82%
- Ladders: 2.29%
- Material: 7.63%
Middle East Land Total Lost Time Incidents by Operation (Chart 11)
Based on 31 Incidents

- Rigging Up/Down: 22.58%
- Material Handling: Forklift: 19.35%
- Laying Down/Picking up Tubulars: 9.68%
- Material Handling: Crane/Cherry Picker: 3.23%
- Material Handling: Manual: 3.23%
- Equipment Repairs or Maintenance: 6.45%
- Mud Mixing/Pumping: 3.23%
- Walking: 6.45%
- Tripping in/out: 6.45%
- Routine Drilling Oper.: 3.23%
- Running Casing/Tubing: 6.45%
- Travel/Transportation: 3.23%
- Rig Move (Towing/Anchor Handling): 3.23%
- Painting (painting related tasks): 3.23%
Middle East Land Total Recordable Incidents by Operation (Chart 12)
Based on 131 Incidents

- Travel/Transportation: 3.05%
- Rig Move (Towing/Anchor Handling): 2.29%
- Walking: 3.05%
- Tripping in/out: 9.92%
- Making Connection: 2.29%
- Routine Drilling Oper.: 3.82%
- Running Casing/Tubing: 11.45%
- Laying Down/Picking up Tubulars: 4.58%
- Material Handling: Manual: 6.87%
- Material Handling: Crane/Cherry Picker: 1.53%
- Material Handling: Forklift: 7.63%
- BOP Stack Install/Maintenance: 7.63%
- Equipment Repairs or Maintenance: 15.27%
- Mud Mixing/Pumping: 3.05%
- Rigging Up/Down: 16.79%
- Painting (painting related tasks): 0.76%
- Mud Mixing/Pumping: 3.05%

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Middle East Land Total Lost Time Incidents by Location (Chart 13)
Based on 31 Incidents

- Pipe Rack/Pipe Deck: 16.13%
- Derrick/Mast: 3.23%
- BOP Stack /well head/tree Area: 3.23%
- Mud Mixing Tank/Area: 9.68%
- Mud Pits/Tanks: 3.23%
- Rig Pad/Rig Decks: 19.35%
- Mud Pump Room: 3.23%
- Rig Floor: 19.35%
- Cellar / Sub / Moonpool: 16.13%
- Truck, Car, Bus: 3.23%
- Camp / Accommodation Areas: 3.23%

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Middle East Land Total Recordable Incidents by Location (Chart 14)
Based on 132 Incidents

- Forklift: 0.76%
- Cellar / Sub / Moonpool: 13.64%
- Living/Camp Areas/Accommodations: 3.79%
- Work Rooms change, storage, room: 2.27%
- Rig Pad/Rig Decks: 13.64%
- Mud Pump Room: 3.79%
- Mud Mixing Tank/Area: 4.55%
- Shale Shaker: 1.52%
- Engine Generator Room: 1.52%
- Stairs/Ladders: 0.76%
- SCR/Electrical Room: 0.76%
- Mud Pits/Tanks: 2.27%
- BOP Stack /well head/tree Area: 3.79%
- Derrick/Mast: 4.55%
- Pipe Rack/Pipe Deck: 9.85%
- Rig Floor: 26.52%
- Rig Pad/Rig Decks: 13.64%
Middle East Land Total Lost Time Incidents by Time in Service (Chart 15)
Based on 31 Incidents

- 10+ yrs.: 19.35%
- >5 yrs. < 10 yrs.: 9.68%
- >1 yr. < 5 yrs.: 51.61%
- >6 mos. < 1 yr.: 9.68%
- 0 mo. < 3 mos.: 9.68%
Middle East Land Total Recordable Incidents by Time in Service (Chart 16)
Based on 131 Incidents

- 10+ yrs. 20.77%
- >5 yrs. < 10 yrs. 17.69%
- >1 yr. < 5 yrs. 50.00%
- >6 mos. < 1 yr. 3.85%
- >3 mos. < 6 mos. 2.31%
- 0 mo. < 3 mos. 5.38%
- >3 mos. < 6 mos. 2.31%
- >6 mos. < 1 yr. 3.85%
- 0 mo. < 3 mos. 5.38%
Middle East Land Total Lost Time Incidents by Time of Day (Chart 17)
Based on 31 Incidents

<table>
<thead>
<tr>
<th>Time</th>
<th>Incidents</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>23:00</td>
<td>23</td>
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<td>19:00</td>
<td>19</td>
<td>3.23%</td>
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<td>22:00</td>
<td>22</td>
<td>3.23%</td>
</tr>
<tr>
<td>15:00</td>
<td>15</td>
<td>6.45%</td>
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<tr>
<td>14:00</td>
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<td>3.23%</td>
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<td>13:00</td>
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<td>6.45%</td>
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<td>10:00</td>
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<td>3.23%</td>
</tr>
<tr>
<td>9:00</td>
<td>9</td>
<td>12.90%</td>
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<tr>
<td>8:00</td>
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<td>3.23%</td>
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<tr>
<td>1:00</td>
<td>1</td>
<td>6.45%</td>
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Middle East Land Total Recordable Incidents by Time of Day (Chart 18)

Based on 132 Incidents

- 19:00: 1.52%
- 20:00: 0.76%
- 21:00: 4.55%
- 22:00: 5.30%
- 23:00: 7.58%
- 0:00: 3.03%
- 1:00: 3.03%
- 2:00: 4.55%
- 3:00: 4.55%
- 4:00: 5.30%
- 5:00: 5.30%
- 6:00: 3.79%
- 7:00: 3.03%
- 8:00: 9.09%
- 9:00: 4.55%
- 10:00: 4.55%
- 11:00: 6.82%
- 12:00: 3.03%
- 13:00: 5.30%
- 14:00: 6.06%
- 15:00: 7.58%
- 16:00: 5.30%
- 17:00: 2.27%
- 18:00: 3.03%
- 19:00: 3.03%
- 20:00: 6.82%
Middle East Land Total Lost Time Incidents by Age (Chart 19)
Based on 30 Incidents

- 26 - 35: 40.00%
- 36 - 45: 10.00%
- 46 - 55: 10.00%
- 56 - 65: 6.67%
- 18 - 25: 33.33%
Middle East Land Total Recordable Incidents by Age (Chart 20)
Based on 125 incidents

- 18 - 25: 22.40%
- 26 - 35: 44.80%
- 36 - 45: 20.00%
- 46 - 55: 10.40%
- 56 - 65: 2.40%