IADC

IADC ISP PROGRAM

2014

Summary of Occupational Incidents
(US Land Totals)

Issued 15 June 2015
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## IADC 2014 US Land Totals (Table 1)

<table>
<thead>
<tr>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Man-hours</td>
<td>103,733,079</td>
</tr>
<tr>
<td>Total Medical Treatment Incidents</td>
<td>317</td>
</tr>
<tr>
<td>Total Restricted Work Incidents</td>
<td>269</td>
</tr>
<tr>
<td>Total Lost Time Incidents</td>
<td>205</td>
</tr>
<tr>
<td>Total Fatalities</td>
<td>10</td>
</tr>
<tr>
<td>Total Recordables</td>
<td>801</td>
</tr>
</tbody>
</table>

### Incidence Rates

- **MTO Incidence Rate**: 0.61
- **RWC Incidence Rate**: 0.52
- **LTI Incidence Rate**: 0.41
- **LTI Frequency Rate**: 2.07
- **DART Incidence Rate**: 0.93
- **DART Frequency Rate**: 4.67
- **Recordable Incidence Rate**: 1.54
- **Recordable Frequency Rate**: 7.72

**Companies Reporting:** Land – 34

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

## US Land Total Incidence Rates vs Man-hours (Figure 1)

![Graph showing incidence rates vs man-hours](chart)
IADC 2014 US Land Charts

US Land Total Lost Time Incidents by Month (Chart 1)
Based on 192 Incidents

- January: 8.33%
- February: 10.94%
- March: 11.46%
- April: 8.85%
- May: 6.77%
- June: 4.69%
- July: 13.54%
- August: 7.81%
- September: 6.25%
- October: 6.77%
- November: 8.33%
- December: 6.25%

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US Land Total Recordable Incidents by Month (Chart 2)
Based on 768 Incidents

- December: 8.07%
- November: 7.55%
- October: 8.46%
- September: 8.20%
- August: 7.81%
- July: 10.42%
- June: 8.07%
- May: 8.07%
- April: 8.07%
- March: 8.33%
- February: 9.90%
US Land Total Lost Time Incidents by Occupation (Chart 3)
Based on 192 Incidents

- Floorman 55.21%
- Derrickman 15.63%
- Driller (Asst. Dr.) 7.81%
- Motorman 14.58%
- Toolpusher (Asst.TP, Tourpusher) 1.94%
- Mechanic 1.56%
- Superintendent/other Supervisors 0.52%
- Rig Helper 2.08%
- Roustabout (Lease Hand) 0.52%
- Other 1.04%

Total: 100%
US Land Total Recordable Incidents by Occupation (Chart 4)
Based on 768 Incidents

- Floorman: 55.86%
- Derrickman: 18.23%
- Driller (Asst. Dr.): 6.90%
- Toolpusher (Asst. TP, Tourpusher): 1.30%
- Electrician: 0.13%
- Superintendent/other Supervisors: 0.13%
- Mechanic: 1.95%
- Motorman: 11.59%
- Other: 1.82%
- Roustabout (Lease Hand): 0.52%
- Truck Driver / Pusher: 0.26%
- Rig Helper: 0.91%
- Truck Helper: 0.26%
- Welder: 0.13%
- Other: 1.82%
US Land Total Lost Time Incidents by Body Part (Chart 5)
Based on 192 Incidents

- Finger(s): 17.71%
- Foot(s)/Ankle(s): 14.55%
- Leg(s): 8.85%
- Arm(s): 8.33%
- Back: 8.33%
- Hand(s)/Wrist(s): 4.69%
- Finger(s): 4.69%
- Trunk/Torso (chest, abdomen, groin): 7.29%
- Shoulder(s): 5.21%
- Elbow(s): 5.73%
- Knee(s): 5.73%
- Skin: 0.52%
- Neck: 0.52%
- Toes: 2.08%
- Eyes (eyelid): 1.56%
- Other: 6.25%
US Land Total Recordable Incidents by Body Part (Chart 6)
Based on 768 Incidents

- Finger(s): 29.30%
- Hand(s) / Wrist(s): 8.59%
- Arm(s): 5.34%
- Trunk/Torso (chest, abdomen, groin): 5.34%
- Back: 6.64%
- Head: 13.80%
- Eyes (eyelid): 2.47%
- Other: 4.30%
- Digestive/Internal: 0.13%
- Lungs/Respiratory: 0.13%
- Shoulder(s): 4.04%
- Neck: 0.65%
- Toes: 1.17%
- Feet/Ankles: 8.46%
- Leg(s): 5.08%
US Land Total Lost Time Incidents by Incident Type (Chart 7)
Based on 192 Incidents

- Caught Between/In: 28.13%
- Struck By: 29.69%
- Struck Against: 2.08%
- Slip/Fall: Same Level: 5.73%
- Slip/Fall: Different Level: 11.46%
- Strain/Overexertion: 10.42%
- Electrical Shock: 1.04%
- Contact With Chemicals/Fluids: 1.56%
- Flame/heat/steam (contact/exposed): 2.08%
- Other: 1.56%
- Heat Exhaustion/Heat Stroke: 3.13%
- Sprain: 1.56%
- Cut: 1.04%
- Debris: 0.52%

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US Land Total Recordable Incidents by Incident Type (Chart 8)
Based on 768 Incidents

- Caught Between/In: 30.21%
- Struck By: 28.91%
- Sprain: 1.17%
- Heat Exhaustion/Heat Stroke: 1.82%
- Other: 1.95%
- Struck Against: 3.39%
- Electrical Shock: 0.52%
- Chemical Inhalation: 0.26%
- Vehicle: 0.13%
- Contact With Chemicals/Fluids: 2.21%
- Strain/Overexertion: 8.33%
- Slip/Fall: Different Level: 7.68%
- Slip/Fall: Same Level: 7.81%
- Debris: 0.78%
- Flame/heat/steam (contact/exposed): 1.04%
- Cut: 3.39%
- Jump: 0.39%
- Sprain: 1.17%
- Chemical Inhalation: 0.26%
- Vehicle: 0.13%
- Contact With Chemicals/Fluids: 2.21%
- Strain/Overexertion: 8.33%
- Slip/Fall: Different Level: 7.68%
- Slip/Fall: Same Level: 7.81%
- Debris: 0.78%
- Flame/heat/steam (contact/exposed): 1.04%
- Cut: 3.39%
- Jump: 0.39%

US Land Total Lost Time Incidents by Equipment (Chart 9)
Based on 192 Incidents

- Anchor Chains/Cables/Winches: 0.52%
- Decks (grating, walkway): 4.69%
- Chemicals: 2.08%
- Pipes / Collars / Tubulars / Csg.: 16.15%
- Top Drive (blocks, swivel, kelly): 1.56%
- Engines/Pumps/Machinery: 4.69%
- Pressure Hoses/Lines: 4.69%
- Material: 2.60%
- BOP Stack (well head, tree): 2.60%
- Kelly Bushings (master bushings): 0.52%
- Iron Roughneck, Pipe Spinn: 2.60%
- Cathead/Drawworks: 1.56%
- Slings (rope, cable, chain, web): 2.60%
- Elevators: 4.17%
- Spinning Chain: 0.52%
- Hand Tools: Power: 4.17%
- Slip (drill collar clamp): 2.08%
- Iron Roughneck, Pipe Spinn: 2.60%
- Rotary: 1.56%
- Hand Tools: Manual: 4.17%
- Engines/Pumps/Machinery: 4.69%
- Car, truck, bus: 0.52%
- Stairs: 1.56%
- Tongs: 4.69%
- Other: 32.29%

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US Land Total Lost Time Incidents by Operation (Chart 11)
Based on 192 Incidents

- Tripping in/out (makeup/brakeout BHA, test tools, etc.) 16.15%
- Making Connection 4.69%
- Routine Drilling Operations 13.02%
- Running Casing/Tubing (rig up/dow csg. tools) 4.69%
- Laying Down/Picking up Pipe/Tubulars 5.33%
- Material Handling: Manual 5.73%
- Material Handling: Forklift 1.04%
- Rigging Up/Down (rig move preparation, rig move) 18.75%
- Well Control (BOP) Stack (well head/tree) Install/Maintenance 4.17%
- Rig/Equipment Repairs or Maintenance 6.25%
- Mud Mixing/Pumping 2.60%
- Special Operations (wireline, perforating, etc.) 1.04%
- Cementing 1.56%
- Walking 3.65%
- Abrasive Blasting/Paint/Scale Removal 1.04%
- Running/Retrieving Anchors 0.52%
- Other 6.77%
US Land Total Recordable Incidents by Operation (Chart 12)
Based on 768 Incidents

- Tripping in/out (makeup/brakeout BHA, test tools, etc.) 19.53%
- Routine Drilling Operations 13.41%
- Running Casing/Tubing (rig up/down, csg. tools) 4.17%
- Laying Down/Picking up Pipe/Tubulars 7.29%
- Material Handling: Manual 3.65%
- Material Handling: Forklift 0.78%
- Material Handling: Rig Floor Winch 0.13%
- Rigging Up/Down (rig move preparation, rig move) 19.79%
- Well Control (BOP) Stack (well head/tree) Install/Maintenance 3.65%
- Rig/Equipment Repairs or Maintenance 9.24%
- Mud Mixing/Pumping 1.69%
- Cementing 1.30%
- Special Operations (wireline, perforating, etc.) 0.26%
- Walking 0.52%
- Abrasive Blasting/Paint/Scale Removal 0.20%
- Painting (painting related tasks) 0.20%
- Other 6.90%
- Travel/Transportation 0.78%
- Running/Retrieving Anchors 0.13%
US Land Total Lost Time Incidents by Location (Chart 13)
Based on 192 Incidents

- Rig Floor: 42.71%
- Work Rooms: 1.56%
- Fuel/Water Storage Tanks: 0.52%
- Catwalk/V-door: 3.65%
- Derrick/Mast: 6.25%
- BOP Stack (well head/tree) Area: 3.13%
- Mud Pits/Tanks: 4.17%
- Mud Mixing Tank/Area: 3.65%
- SCR/Electrical Room: 0.52%
- Engine/Gen. Room: 1.04%
- Stairs/Ladders: 1.56%
- Cellar/Substructure/Moonpool: 6.25%
- Rig Pad/Rig Decks: 9.90%
- Mud Pump Room: 5.21%
- Other: 6.25%
US Land Total Recordable Incidents by Location (Chart 14)
Based on 768 Incidents

- Rig Floor: 41.41%
- Work, change, storage, rooms: 1.43%
- Rig Pad/Rig Decks: 8.72%
- Cellar/Subs./Moonpool: 7.16%
- Catwalk/V-door: 2.08%
- Derrick/Mast: 6.90%
- BOP Stack (well head/tree) Area: 2.99%
- Mud Pits/Tanks: 4.69%
- Mud Mixing Tank/Area: 3.76%
- Shale Shaker: 1.04%
- Engine/Gen. Rooms: 0.39%
- SCR/Electrical Room: 0.13%
- Stairs/Ladders: 1.43%
- Truck, Car, Bus: 0.39%
- Machinery Spaces: 0.26%
- Fuel/Water Storage Tanks: 0.26%
- Other: 8.07%
US Land Total Lost Time Incidents by Time in Service (Chart 15)
Based on 192 Incidents

- 0 mo. < 3 mos.: 32.81%
- >3 mos. < 6 mos.: 18.23%
- >6 mos. < 1 yr.: 15.63%
- >1 yr. < 5 yrs.: 29.69%
- >5 yrs. < 10 yrs.: 1.56%
- 10+ yrs.: 2.08%
US Land Total Recordable Incidents by Time in Service (Chart 16)
Based on 763 Incidents

- 10+ yrs.: 2.49%
- >5 yrs. < 10 yrs.: 5.64%
- >1 yr. < 5 yrs.: 34.47%
- >6 mos. < 1 yr.: 16.64%
- >3 mos. < 6 mos.: 15.33%
- 0 mo. < 3 mos.: 25.43%
US Land Total Lost Time Incidents by Time of Day (Chart 17)
Based on 189 Incidents

- 1:00: 0.53%
- 2:00: 3.70%
- 3:00: 2.65%
- 24:00: 4.76%
- 23:00: 1.59%
- 22:00: 7.94%
- 21:00: 3.17%
- 20:00: 2.65%
- 19:00: 5.82%
- 18:00: 4.76%
- 17:00: 3.17%
- 16:00: 3.70%
- 15:00: 5.29%
- 14:00: 4.76%
- 13:00: 2.65%
- 12:00: 4.76%
- 11:00: 5.82%
- 10:00: 4.76%
- 09:00: 7.94%
- 08:00: 5.29%
- 07:00: 1.59%
- 06:00: 3.70%
- 05:00: 5.82%
- 04:00: 3.70%
- 03:00: 1.59%
- 02:00: 3.70%
- 01:00: 0.53%
US Land Total Recordable Incidents by Time of Day (Chart 18)
Based on 760 Incidents

- 23:00: 2.63%
- 24:00: 2.76%
- 1:00: 2.11%
- 2:00: 3.16%
- 3:00: 3.82%
- 4:00: 3.55%
- 5:00: 3.55%
- 6:00: 3.29%
- 7:00: 3.42%
- 8:00: 4.74%
- 9:00: 4.74%
- 10:00: 5.00%
- 11:00: 5.26%
- 12:00: 5.26%
- 13:00: 5.26%
- 14:00: 5.26%
- 15:00: 5.26%
- 16:00: 5.79%
- 17:00: 3.55%
- 18:00: 5.39%
- 19:00: 4.08%
- 20:00: 3.42%
- 21:00: 4.21%
- 22:00: 4.21%
- 23:00: 2.63%
- 24:00: 2.76%
US Land Total Lost Time Incidents by Age (Chart 19)
Based on 163 Incidents

- 18 - 25: 26.99%
- 26 - 35: 43.56%
- 36 - 45: 18.40%
- 46 - 55: 7.98%
- 56 - 65: 3.07%

Based on 163 Incidents
US Land Total Recordable Incidents by Age (Chart 20)
Based on 683 Incidents

- 18 - 25: 27.23%
- 26 - 35: 43.48%
- 36 - 45: 19.18%
- 46 - 55: 8.49%
- 56 - 65: 1.61%