IADC
ISP PROGRAM
2013
Summary of Occupational Incidents (Africa Land Totals)

Issued 20 May 2014
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(Issue 20 May 2014)

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IADC 2013 Africa Land Totals (Table 1)

<table>
<thead>
<tr>
<th>Total Man-hours</th>
<th>Total Medical Treatment Incidents</th>
<th>Total Restricted Work Incidents</th>
<th>Total Lost Time Incidents</th>
<th>Total Fatalities</th>
<th>Total Recordables</th>
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<td>41,203,044</td>
<td>43</td>
<td>99</td>
<td>79</td>
<td>0</td>
<td>221</td>
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- **MTO Incidence Rate**: 0.21
- **RWC Incidence Rate**: 0.48
- **LTI Incidence Rate**: 0.38
- **LTI Frequency Rate**: 1.92
- **DART Incidence Rate**: 0.86
- **DART Frequency Rate**: 4.32
- **Recordable Incidence Rate**: 1.07
- **Recordable Frequency Rate**: 5.36

**Companies Reporting**: Land – 15

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

**Africa Land Total Incidence Rates vs Man-hours (Figure 1)**

[Graph showing incidence rates over time]
IADC 2013 Africa Land Charts
Africa Land Total Lost Time Incidents by Month (Chart 1)
Based on 79 Incidents

- December: 5.06%
- October: 3.80%
- November: 13.92%
- January: 5.06%
- February: 12.66%
- March: 5.06%
- April: 11.39%
- May: 6.33%
- June: 8.86%
- July: 16.46%
- August: 7.59%
- September: 3.80%
Africa Land Total Recordable Incidents by Month (Chart 2)
Based on 221 Incidents

- December: 5.88%
- November: 9.05%
- October: 6.33%
- September: 4.52%
- August: 9.05%
- July: 13.57%
- June: 8.14%
- May: 9.05%
- April: 6.79%
- March: 10.86%
- February: 9.05%
- January: 7.69%
Africa Land Total Lost Time Incidents by Occupation (Chart 3)
Based on 79 Incidents

- Roustabout (Lease Hand): 21.52%
- Floorman: 29.11%
- Driller (Asst. Dr.): 16.46%
- Derrickman: 10.13%
- Electrician: 2.53%
- Mechanic: 6.33%
- Crane / Forklift Operator: 1.27%
- Toolpusher / Tourpusher: 1.27%
- Rig Helper: 3.80%
- Welder: 5.06%
- Other: 1.27%

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Africa Land Total Recordable Incidents by Occupation (Chart 4)
Based on 221 Incidents

- Driller (Asst. Dr.) 14.03%
- Floorman 31.22%
- Derrickman 11.31%
- Toolpusher / Tourpusher 2.71%
- Electrician 3.62%
- Mechanic 8.60%
- Crane / Forklift Operator 0.90%
- Superintendent / other Supervisors 0.90%
- Catering / Camp Personnel 0.45%
- Maintenance Sup. 0.45%
- Other 4.07%
- Roustabout (Lease Hand) 15.38%
- Welder 3.17%
- Rig Helper 1.36%
- Truck Driver / Pusher 1.36%
- Medics 0.45%
- Catering / Camp Personnel 0.45%
- Electricians 3.62%
- Toolpusher / Tourpusher 2.71%
- Driller (Asst. Dr.) 14.03%
- Floorman 31.22%
- Derrickman 11.31%

Based on 221 Incidents
Africa Land Total Lost Time Incidents by Body Part (Chart 5)
Based on 79 Incidents

- Finger(s) 24.05%
- Hand(s) / Wrist(s) 10.13%
- Trunk/Torso (chest, abdomen, groin) 5.06%
- Arm(s) 2.53%
- Back 10.13%
- Head 6.33%
- Other 3.80%
- Shoulder(s) 3.80%
- Knee(s) 1.27%
- Elbow(s) 1.27%
- Neck 1.27%
- Toes 1.27%
- Legs 3.80%
- Feet/Ankles 20.25%
Africa Land Total Recordable Incidents by Body Part (Chart 6)
Based on 221 Incidents

Elbow(s) 0.90%
Knee(s) 2.26%
Other 5.88%
Shoulder(s) 4.98%
Neck 0.45%
Toes 0.90%
Finger(s) 24.43%
Hand(s) / Wrist(s) 12.22%
Finger(s) 24.43%
Back 9.50%
Finger(s) 24.43%
Leg(s) 5.88%
Finger(s) 24.43%
Finger(s) 24.43%
Finger(s) 24.43%
Trunk/Torso (chest, abdomen, groin) 2.26%
Finger(s) 24.43%
Eyes (eyelid) 3.62%
Head 10.41%
Africa Land Total Lost Time Incidents by Incident Type (Chart 7)
Based on 79 Incidents

- Caught Between/In: 34.18%
- Struck By: 25.32%
- Struck Against: 5.06%
- Slip/Fall: Same Level: 10.13%
- Slip/Fall: Different Level: 8.86%
- Strain/Overexertion: 3.80%
- Contact With Chemicals/Fluids: 1.27%
- Cut: 1.27%
- Vehicle: 1.27%
- Sprain: 1.27%
- Other: 3.80%
- Debris: 3.80%
- Sprain: 1.27%
- Other: 3.80%
- Struck By: 25.32%
- Struck Against: 5.06%
- Slip/Fall: Same Level: 10.13%
- Slip/Fall: Different Level: 8.86%
- Strain/Overexertion: 3.80%
- Contact With Chemicals/Fluids: 1.27%
- Cut: 1.27%
- Vehicle: 1.27%
- Sprain: 1.27%
- Other: 3.80%
- Debris: 3.80%
Africa Land Total Recordable Incidents by Incident Type (Chart 8)
Based on 221 Incidents

- Struck By: 25.79%
- Cut: 4.98%
- Chemical Inhalation: 0.45%
- Sprain: 1.36%
- Other: 6.33%
- Struck Against: 5.43%
- Struck Between/In: 24.89%
- Slip/Fall: Different Level: 10.86%
- Slip/Fall: Same Level: 9.50%
- Caught Between/In: 24.89%
- Slip/Fall: Different Level: 10.86%
- Struck By: 25.79%
- Vehicle: 1.36%
- Debris: 1.81%
- Flame/heat/steam (contact/exposed): 0.90%
- Electrical Shock: 0.45%
- Contact With Chemicals/Fluids: 1.36%
- Strain/Overexertion: 4.52%
- Cut: 4.98%
- Vehicle: 1.36%
- Debris: 1.81%
- Flame/heat/steam (contact/exposed): 0.90%
- Electrical Shock: 0.45%
- Contact With Chemicals/Fluids: 1.36%
- Strain/Overexertion: 4.52%
- Slip/Fall: Different Level: 10.86%
- Slip/Fall: Same Level: 9.50%
- Caught Between/In: 24.89%
Africa Land Total Lost Time Incidents by Equipment (Chart 9)
Based on 79 Incidents

- **Other** 29.11%
- **Tongs** 7.59%
- **Elevators** 6.33%
- **Slips (drill collar clamp)** 1.27%
- **Iron Roughneck, Pipe Spinner, etc.** 2.53%
- **Pipes/Collars/Tubulars/Csg.** 13.92%
- **Slings (rope, cable, chain, web)** 2.53%
- **Hand Tools: Manual** 6.33%
- **Hand Tools: Power** 2.53%
- **Engines/Pumps/Machinery** 1.27%
- **Boat** 1.27%
- **Car, truck, bus** 1.27%
- **Kelly Bushings (master bushings)** 1.27%
- **Stairs** 3.80%
- **Material** 2.53%
- **Pressure Hoses/Lines** 2.53%
- **Forklift** 1.27%
- **Crane** 6.33%
- **Decks (grating, walkway)** 2.53%
- **Welding, Cutting, Grinding Equipment** 1.27%
- **Top Drive (blocks, swivel, kelly)** 1.27%

Total incidents: 79
Africa Land Total Recordable Incidents by Equipment (Chart 10)
Based on 221 Incidents

- Rig Floor Winch/Deck Winch (air/hydraulic): 0.45%
- Anchor Chains/Cables/Winches: 0.45%
- Other: 30.77%
- Decks (grating, walkway): 2.26%
- Ladders: 1.36%
- Welding, Cutting, Grinding Equipment: 1.81%
- Chemicals (sack, drum, pail, bulk hopper): 0.90%
- Forklift: 0.90%
- Crane: 2.71%
- Pressure Hoses/Lines: 1.81%
- Stairs: 4.52%
- Material: 2.26%
- Well Control (BOP) Stack (well head, tree): 1.81%
- Elevators: 4.98%
- Tongs: 9.95%
- Slips (drill collar clamp): 1.81%
- Iron Roughneck, Pipe Spinner, etc.: 1.36%
- Pipes/Collars/Tubulars/Csg.: 11.31%
- Cathead/Drawworks: 0.45%
- Slings (rope, cable, chain, web): 2.26%
- Hand Tools: Manual: 7.69%
- Hand Tools: Power: 0.90%
- Engines/Pumps/Machinery: 4.52%
- Boat: 1.36%
- Car, truck, bus: 0.90%
- Kelly Bushings (master bushings): 0.45%

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Africa Land Total Lost Time Incidents by Operation (Chart 11)
Based on 79 Incidents

- Travel/Transport: 2.53%
- Other: 8.66%
- Tripping in/out (makeup/brakeout BHA, test tools, etc.): 11.39%
- Making Connection: 8.86%
- Routine Drilling Operations: 7.59%
- Running Casing/Tubing (rig up/down csg. tools): 6.33%
- Laying Down/Picking up Pipe/Tubulars: 7.59%
- Material Handling: Manual: 2.53%
- Material Handling: Forklift: 2.53%
- Material Handling: Crane/Cherry Picker: 2.53%
- Rigging Up/Down (rig move preparation, rig move): 18.99%
- Rig/Equipment Repairs or Maintenance: 10.13%
- Special Operations (wireline, perforating, etc.): 1.27%
- Walking: 7.59%
- Jacking Up/Down Operations: 1.27%
- Tripping in/out (makeup/brakeout BHA, test tools, etc.): 11.39%
Africa Land Total Recordable Incidents by Operation (Chart 12)
Based on 221 Incidents

- Tripping in/out: 9.50%
- Making Connection: 6.33%
- Routine Drilling Ops: 5.43%
- Running Casing/Tubing (rig up/down csg. tools): 7.69%
- Laying Down/Picking up Pipe/Tubulars: 4.07%
- Material Handling Manual: 3.17%
- Material Handling Crane/Cherry Picker: 2.26%
- Well Control (BOP) Stack (well head/tree) Install/Maintenance: 4.52%
- Rigging Up/Down (rig move preparation, rig move): 10.86%
- Material Handling Forklift: 1.36%
- Material Handling Rig Floor: 1.36%
- Material Handling Crane: 1.36%
- Rigging Up/Down (rig move preparation, rig move): 10.86%
- Making Connection: 6.33%
- Routine Drilling Ops: 5.43%
- Running Casing/Tubing (rig up/down csg. tools): 7.69%
- Laying Down/Picking up Pipe/Tubulars: 4.07%
- Material Handling Manual: 3.17%
- Material Handling Crane/Cherry Picker: 2.26%
- Well Control (BOP) Stack (well head/tree) Install/Maintenance: 4.52%
- Rigging Up/Down (rig move preparation, rig move): 10.86%
- Material Handling Forklift: 1.36%
- Material Handling Rig Floor: 1.36%
- Material Handling Crane: 1.36%
- Rigging Up/Down (rig move preparation, rig move): 10.86%
- Making Connection: 6.33%
- Routine Drilling Ops: 5.43%
- Running Casing/Tubing (rig up/down csg. tools): 7.69%
- Laying Down/Picking up Pipe/Tubulars: 4.07%
- Material Handling Manual: 3.17%
- Material Handling Crane/Cherry Picker: 2.26%
- Well Control (BOP) Stack (well head/tree) Install/Maintenance: 4.52%
- Rigging Up/Down (rig move preparation, rig move): 10.86%
- Material Handling Forklift: 1.36%
- Material Handling Rig Floor: 1.36%
- Material Handling Crane: 1.36%
- Rigging Up/Down (rig move preparation, rig move): 10.86%
- Making Connection: 6.33%
- Routine Drilling Ops: 5.43%
- Running Casing/Tubing (rig up/down csg. tools): 7.69%
- Laying Down/Picking up Pipe/Tubulars: 4.07%
- Material Handling Manual: 3.17%
- Material Handling Crane/Cherry Picker: 2.26%
- Well Control (BOP) Stack (well head/tree) Install/Maintenance: 4.52%
- Rigging Up/Down (rig move preparation, rig move): 10.86%
- Material Handling Forklift: 1.36%
- Material Handling Rig Floor: 1.36%
- Material Handling Crane: 1.36%
- Rigging Up/Down (rig move preparation, rig move): 10.86%
- Making Connection: 6.33%
- Routine Drilling Ops: 5.43%
- Running Casing/Tubing (rig up/down csg. tools): 7.69%
- Laying Down/Picking up Pipe/Tubulars: 4.07%
- Material Handling Manual: 3.17%
- Material Handling Crane/Cherry Picker: 2.26%
- Well Control (BOP) Stack (well head/tree) Install/Maintenance: 4.52%
- Rigging Up/Down (rig move preparation, rig move): 10.86%
- Material Handling Forklift: 1.36%
- Material Handling Rig Floor: 1.36%
- Material Handling Crane: 1.36%
- Rigging Up/Down (rig move preparation, rig move): 10.86%
- Making Connection: 6.33%
- Routine Drilling Ops: 5.43%
- Running Casing/Tubing (rig up/down csg. tools): 7.69%
- Laying Down/Picking up Pipe/Tubulars: 4.07%
- Material Handling Manual: 3.17%
- Material Handling Crane/Cherry Picker: 2.26%
- Well Control (BOP) Stack (well head/tree) Install/Maintenance: 4.52%
- Rigging Up/Down (rig move preparation, rig move): 10.86%
- Material Handling Forklift: 1.36%
- Material Handling Rig Floor: 1.36%
- Material Handling Crane: 1.36%
- Rigging Up/Down (rig move preparation, rig move): 10.86%

Based on 221 Incidents

- Other: 19.46%
- Travel/Transportation: 2.26%
- Rig/Equipment Repairs or Maintenance: 11.31%
- Mud Mixing/Pumping: 2.26%
- Special Operations (wireline, perforating, etc.): 0.90%
- Jacking Up/Down Operations: 0.45%
- Walking: 6.79%
Africa Land Total Lost Time Incidents by Location (Chart 13)
Based on 79 Incidents

- Other: 15.19%
- Rig Floor (rotary, pipe set back area): 45.57%
- Rig Pad/Rig Decks (rig/well site/location, yard): 7.59%
- Derrick/Mast (crown, monkey/stabbing board, a-frame): 2.53%
- Catwalk/V-door: 2.53%
- Pipe Rack/ Pipe Deck: 2.53%
- Mud Mixing Tank/Area: 1.27%
- Stairs/Ladders: 1.27%
- Mud Pits/Tanks: 3.80%
- Living/Camp Areas/Accommodations: 5.06%
- Cellar/Substructure/Moonpool: 7.59%
- Cherry Picker/Crane: 2.53%
- Mud Pump Room: 1.27%
Africa Land Total Recordable Incidents by Location (Chart 14)
Based on 221 Incidents

- Rig Floor (rotary, pipe set back area): 34.39%
- Mud Mixing Tank/Area: 5.43%
- Engine Room/Generator Room: 1.81%
- Mud Pits/Tanks: 3.17%
- Shale Shaker: 1.81%
- Living/Camp Areas/Accommodations: 6.79%
- Cellar/Substructure/Moonpool: 6.33%
- Rig Pad/Rig Decks (rig/well site/location, yard): 6.79%
- Stairs/Ladders: 2.26%
- Cherry Picker/Crane: 0.90%
- Fuel/Storage Tanks: 0.45%
- Pontoon: 0.45%
- Machinery Spaces: 0.45%
- Truck, Boat, Car, Bus, Vehicle: 2.26%
- Catwalk/V-door: 1.36%
- Derrick/Mast (crown, monkey/stabbing board, a-frame): 3.62%
- Well Control (BOP) Stack (well head/tree) Area: 3.17%
- Pontoon: 0.45%
- Fuel/Water Storage Tanks: 0.45%
Africa Land Total Lost Time Incidents by Time in Service (Chart 15)
Based on 78 Incidents

- 10+ yrs. 20.51%
- >5 yrs. < 10 yrs. 37.18%
- >1 yr. < 5 yrs. 23.08%
- >6 mos. < 1 yr. 6.41%
- >3 mos. < 6 mos. 1.28%
- 0 mo. < 3 mos. 11.54%

Total: 100%
Africa Land Total Recordable Incidents by Time in Service (Chart 16)
Based on 218 Incidents

- >1 yr. < 5 yrs.: 27.98%
- >6 mos. < 1 yr.: 5.50%
- >3 mos. < 6 mos.: 2.29%
- 0 mo. < 3 mos.: 5.50%
- >6 mos. < 1 yr.: 5.50%
- >5 yrs. < 10 yrs.: 41.28%
- >10 yrs.: 17.43%
Africa Land Total Lost Time Incidents by Time of Day (Chart 17)
Based on 78 Incidents

- 00:00:00  2.56%
- 01:00:00  2.56%
- 02:00:00  2.56%
- 03:00:00  2.56%
- 04:00:00  3.85%
- 05:00:00  3.85%
- 06:00:00  1.28%
- 07:00:00  6.41%
- 08:00:00  10.26%
- 09:00:00  6.41%
- 10:00:00  2.56%
- 11:00:00  2.56%
- 12:00:00  3.85%
- 13:00:00  6.41%
- 14:00:00  6.41%
- 15:00:00  7.69%
- 16:00:00  3.85%
- 17:00:00  6.41%
- 18:00:00  2.56%
- 19:00:00  1.28%
- 20:00:00  1.28%
- 21:00:00  3.85%
- 22:00:00  7.69%
- 23:00:00  2.56%
- 24:00:00  2.56%
Africa Land Total Recordable Incidents by Time of Day (Chart 18)
Based on 219 Incidents

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