Bringing a New Dimension to Pipeline Pigging
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Introduction

DEVELOPING AND DELIVERING RELIABLE CHEMICAL SOLUTIONS TO SOLVE COMPLEX CHALLENGES

• WHO WE ARE
• PRODUCTS
• GLOBAL LOCATIONS
• FACILITIES
• TECHNICAL SUPPORT
• STRATEGY
• De-Oiling
• De-Watering
• Corrosion Protection
• Separation
De-Oiling Offshore Platform to Land Middle East

- Pipeline change of purpose from oil export to fire fighting water storage
- 2 off 10” pipeline 4.2km
- 1 off 16” pipeline 1.5km
- Pipeline contained high viscosity fuel oil
- Gel 33 used
Recovered Oil
To Receiving Station

2 off 10" 4.2Km Pipeline

16" 1.5Km Pipeline

Gel 33

From Platform

Sea Water
De-Oiling Offshore Platform to Land Middle East

- Gel blended onsite
- 344 m$^3$ oil recovered
- Oil free after 1 run
Jumper Protection

MEG Gel – Seawater ingress Protection – De-gassing of jumpers

8” Jumper
3” Jumper

High viscosity slug at each end, standard viscosity in middle
• Reduce in diameter by 50%
• Return to size
• Negotiate bends 1.5D
• Driven hydraulically or pneumatically
Pipeline Dewatering

10” 3Km subsea pipeline
No launcher or receiver
Water and glycol based gels along with EVO-Pig
• Flange plate suspected lost in pipeline
• Conventional pig impossible to use
• No launch receiving facility
Wax Dissolver Job

- Wax build up in 10” 30Km pipeline
- Connected via 2 off risers – 1 off 8” and 1 off 10”
- EVO-Pig used as separator with wax dissolver
- Pigs to stop every 500m to allow dissolver to soak
Wax Dissolver Job

<table>
<thead>
<tr>
<th>Step</th>
<th>Wax Dissolver Quantity</th>
<th>Pig Type</th>
<th>Fluid Type</th>
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<tbody>
<tr>
<td>Flush line with water – 120% volume</td>
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<tr>
<td>8” Riser Soak</td>
<td>17 m³ of Wax Dissolver</td>
<td>EVO-Pig</td>
<td>Seawater</td>
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<tr>
<td>10” Riser Soak</td>
<td>30 m³ of Wax Dissolver</td>
<td>EVO-Pig</td>
<td>Seawater</td>
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<td>Pig Run 1</td>
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<td>Pig Run 2</td>
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<td>Pig Run 3</td>
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<td>Final water flush</td>
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