Phil Werdahl is the founder, CEO and director of Trace Register. He has 37 years of experience in the seafood industry, including serving as a U.S. government observer aboard Japanese surimi vessels and aboard a whaling fleet in Antarctica.

Born and raised in Japan, he has in-depth understanding of Japan's social, cultural and business traditions. He possesses unique perspectives on international issues related to both the production and marketing sides of commercial aquaculture. A graduate of the University of Washington, Werdahl is also co-founder and former president of Jubilee Fisheries, Inc., a fully integrated fishing company that catches and freezes bottom fish in Alaska.
Agenda

• Company Overview
• Trends Influencing Traceability
• Trace Register System
• Benefits of Traceability
• Over 450 customers
  – 24 countries, 7 languages
• Headquarters in Seattle
  – Offices in Europe, China, Japan, Thailand, Vietnam, Ecuador, Brazil
• BAP development partner since 2006
• Linking Buyers
  – Retail and Food Service
• With their Suppliers
  – Seafood, farmed and wild
  – Large and small
  – North America, Europe, Asia, Central and Latin America
Global Trends Influencing Traceability

• Changing Way Information is Put to Work
  • Was monolithic data storage and reporting
  • Now data sharing and collaboration

• Drive to Improve Efficiency by Continuously Removing Waste

• Consumer IT is way Ahead of Business IT

• Early Adopters of Traceability are Writing the “Rules of the Road”
## Comprehensive Product Data

### Received Traceability Documents

<table>
<thead>
<tr>
<th>COMMON NAME</th>
<th>LOT NUMBER</th>
<th>SUPPLIER / BUYER</th>
<th>RECEIVED / RECORDED</th>
<th>TRACEABILITY DOCUMENT</th>
<th>COUNTRY OF ORIGIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Pacific Halibut</td>
<td>SF2-34</td>
<td>Frozen Fish LLC</td>
<td>July 30, 2010</td>
<td>00000000006033A</td>
<td>United States</td>
</tr>
<tr>
<td>North Atlantic Halibut</td>
<td>NAH56</td>
<td>Frozen Fish LLC</td>
<td>July 27, 2010</td>
<td>00000000005972</td>
<td>Norway</td>
</tr>
<tr>
<td>Blue Mussels</td>
<td>SF-0710</td>
<td>Frozen Fish LLC</td>
<td>July 27, 2010</td>
<td>00000000005972</td>
<td>Australia</td>
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<td>King Fish</td>
<td>SF1-070810</td>
<td>Frozen Fish LLC</td>
<td>July 27, 2010</td>
<td>00000000005972</td>
<td>Australia</td>
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<tr>
<td>TUNA SOLID IN BRINE LITHI USJ17A7-J4B</td>
<td></td>
<td>Peters Importers</td>
<td>July 27, 2010</td>
<td>00000000005960</td>
<td>Ecuador</td>
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<tr>
<td>P&amp;D White Shrimp</td>
<td>S664664L</td>
<td>Seafood Distributors</td>
<td>July 27, 2010</td>
<td>00000000005901</td>
<td>United States</td>
</tr>
</tbody>
</table>

### Attributes

- **Purchase Order Number**: CAA898979
- **Lot Number**: S664664L
- **Total Net Weight**: 4000
- **Item Code**: LS4445666
- **Unit of Measure**: Ib
- **Common Name**: P&D White Shrimp
- **Country of Origin**: United States

### Certifications

- **Invoice Number**: SDL6364597
- **Trade Unit(s) Shipped**: 400
- **GTIN 14**: 12345678979897
- **Trade Unit**: Cases
- **Product Form**: Frozen

### Source Products

- **Scientific Name**: Litopenaeus setiferus
- **Production Method**: Wild
Document Management
Third Party Laboratory Analysis

![Laboratory Analysis Interface]

**Lab Reports**

**Results**

<table>
<thead>
<tr>
<th>LOT</th>
<th>SCIENTIFIC NAME</th>
<th>DESCRIPTION</th>
<th>SAMPLE DATE</th>
<th>LAB DATE</th>
<th>ALERT</th>
<th>REPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>123456789-0</td>
<td>Penaeus vannamei</td>
<td>Test Sample for Species of C.</td>
<td>Thu May 20 00:00</td>
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</table>

**Sample**

<table>
<thead>
<tr>
<th>Lab Report ID</th>
<th>Cumb010</th>
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<tbody>
<tr>
<td>Record Date</td>
<td></td>
</tr>
<tr>
<td>Recorded By</td>
<td>Peter Lartins</td>
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</table>

**Results**

<table>
<thead>
<tr>
<th>Economic</th>
<th>Quality</th>
<th>Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subst</td>
<td>Spol</td>
<td>E-co1</td>
</tr>
<tr>
<td>Size</td>
<td>Filth</td>
<td>Floro1</td>
</tr>
<tr>
<td>Weigh</td>
<td>Dehyd</td>
<td>Floro2</td>
</tr>
<tr>
<td>Glaze</td>
<td>Textur</td>
<td>Floro3</td>
</tr>
<tr>
<td></td>
<td>Odor</td>
<td>Floro4</td>
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<td></td>
<td>Damag</td>
<td>Floro5</td>
</tr>
<tr>
<td></td>
<td>Prep</td>
<td>Nitro1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nitro2</td>
</tr>
<tr>
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</tr>
<tr>
<td></td>
<td></td>
<td>Nitro4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chlor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Slaph</td>
</tr>
<tr>
<td></td>
<td></td>
<td>List</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Salmo</td>
</tr>
</tbody>
</table>

**Save** | **Revise Report** | **View Report**

*View Revision: 010A*

Total Rows: 25
Trace Back to Source

Problem Identified at Retailer
Traced to Original Producer
Identify Product Recipients

Demonstration

Retailer 1
Retailer 2
Retailer 3
GS1 and Trace Register

Farm → Processor → Distributor → DC → Retailer

GS1 and Trace Register
Automated Upload

Vessel → Processor → Distributor → DC → Store

RFID, Bar Code, GPS

Technology Agnostic

Internal Systems

XML Upload

trace register

Demonstration

Global fish for Aquaculture Leadership

KUALA LUMPUR 2018
Trace Register Compatibility

Ability to work with major seafood software programs

e.g.
• Sea-soft
• SAP
• Net Yield
• Seaside Management Systems
• Fishmonger
• SIMBA
• Astra Information Systems
• Fishbowl
• Datastream
• Etc.

Auto Uploads in:
USA, UK, Thailand, Indonesia, China, Colombia, Ecuador
Certification Verification and Management
Branding and Marketing
Branding and Marketing

Verify the authenticity of the Yukon Salmon you have purchased.

![Image of a salmon with a traceability code input area](image)

To ensure that distributors, retailers and consumers are getting the product key they pay for, and to assure that the people who catch and process the fish also receive a premium price for their catch, Kwikpak Fisheries has teamed with Seattle-based Trace Register, LLC, to give shoppers the opportunity to trace the fish to its origin. By using this tool you will be able to verify that the salmon you purchase is, in fact, from Kwikpak Fisheries' Yukon River catch.

www.kptrace.com
Potential Benefits

• Standardized Communication and Collaboration
• Effective Sales Tool to your Customers
• End Consumer Branding and Marketing
• Automated Information Management
• Efficient Product Specification Management
• Enhanced Supplier Management and Analysis
• Automated Sustainability Reporting
• Proactive Risk Management
• End to end Demand Management
• Others to be determined