



Our history Generations of innovation



Health, Safety and Environment

In Q1 2010 LTIF and TRIF are both up from 2009 level, but same level as Q1 2009. Finger injuries and slippery ice are the main causes. Reduction in sick leave from both 2009 year end level and Q1 2009 level.



HSE performance







June 2010

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Who we are and what we do

June 2010

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Energy development and services

- 1. Tension leg platform for production and drilling
- 2. Onshore gas receiving, processing and export plant
- 3. CO₂ capture plant of flue gas from power production
- 4. Jacket structure for shallow waters, with drilling and production facilities
- Harsh environment CONDEEP™ MonoFloater, with production facilities and storage capacity
- 6. Concrete structure ConGas, supporting LNG storage and an LNG regasification plant
- 7. Wind turbine foundations for shallow water locations
- 8. Aker H-6*e*, the world's largest and most advanced drilling semisubmersible
- Semisubmersible production platform extreme water depths - may include drilling facilities





Who we are and what we do

June 2010

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Oil & Gas - From reservoir to processing facility



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Proje	ect Ex	kecut	ion N	lode	I (PE	M)				FEASIBILIT & CONCEP	TY SYST DEFINI TENDER & KICK-OFF	EM DETAI TION FABRIC	LING & AS CATION E	SEMBLY / RECTION	SYSTEM COMPLETION	CONTRACT COMPLETION Service & Assistance Agreements Warranty Handing
Stage objectives														Acceptance & Contract Close-out		
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Phase 1	Feasibi	lity & Concept		Phase 2	System Definition		Phase 3	Detailing & Fabrica	lion	Phase 4	Assembly / Erection	on	Phase 5	System	Completion	
Stage 1A Opportunity appraisal	Stage 1B Feasibility studies	Stage 1C Concept selection	Stage 1D Concept definition	Stage 2A System definition	Stage 2B System design & layout development	Stage 2C Global design	Stage 3A Detail Design & sub-contracting	Stage 3B Pre-fabrication & manufacturing	Stage 3C Fabrication	Stage 4A Transport & positioning	Stage 4B Assembly	Stage 4C Mechanical completion	Stage 5A Commissioning	Stage 5B Offshore installation	Stage 5C Take-over	Stage 5D Project close out
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The way we work and deliver projects!



PEM Execution Level – M2C – M3D Instrument Discipline Flowshhets and activity description





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Link between Control level and Execution Level

Summary: Quality assurance in time, interface & detailed planning.



Quality Level (QL) descriptions

AK PEM Introduction 28th Jan. 05 may 9







AK FD Methods & Tools – Step changes



Aker Solutions Conceptual Data Model



Number of tags/tonnes in Engineering Registers Trendline shows a 45% increase over 11 years



Number of DFO documents/tonnes have increased by 77% from 1998->2010



"Word Book" (ISO15926 RDL) in the industry With an IDS take on it



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Aker Solutions Take on ISO 15926

- Aker Solutions internal "data model" to be "RDL compliant"
- Procurement ITT's to specify delivery of information on ISO 15926 "RDL format"
 - Clients (Owner/Operators) to support EPC contractors (specify ISO 15926) in the industry adoption process
 - Coordination between EPC companies is required
- Further development of ISO 15926 product domains is of key importance
- Aker Solutions is investing in knowledge and work processes for data exchange on ISO 15926



Aker Solutions View on ISO 15926 Data Exchange



- Main principles
 - The value of ISO 15926 is closely linked to the exposure of the standard into "neutral" ISO 15926 XML formats
 - Source and target systems to be able to exchange information directly between each other based on "neutral" ISO 15926 XML format
 - "Neutral" ISO 15926 XML format to be compliant with ISO 15926 RDL and data model
 - Aker Solutions will try to adapt to the ISO 15926 RDL in their own information systems as far as possible, to ease the transformation efforts during data extraction and import



Best practice and principles for information exchange



- Principles
 - Information exchange between parties based on ISO15926 industry standard
 - Human control through visualization before import info legacy databases •
 - Suppliers will only relate to ISO15926 within their own domains
 - EPC contractor main information exchange hub
- Advantages
 - Client: Quality controlled data, more efficient information exchange through industry standard information format
 - EPC contractor: Quality controlled data, one industry standard exchange format to relate to
 - Supplier: One industry standard exchange format to relate to









Company Specific Material Catalogue



EqHub implementation in projects



Standard Component List

The Standard Component List received with the order shall be completed with the information fields required and submitted to the ordering party as soon as the standard documentation is quality approved in the EqHub repository. The search key in the EqHub repository shall be verified by the supplier and entered in the Standard Component List for each component listed.

Contractor information			Packag	e information		True Manufacturer info	EqHub			
Contractor code	Facility code	Facility code Discipline Package numbe		Suppliers name Manufacturer Name		Partl Number Serial Number		VDS number/size	EqHub id Standard documentation	
						Blank if VDS number		Blank if Part number		Hyperlink to doc/drwg stored in EqHub

The list is a vital tool for ensuring priority:

•Gives the supplier list of equipment that will be required

and follow up possibilities:

•All parties may check what is expected to be found in EqHub



Summary EqHub benefits - EPC

If properly implemented

- Common solution with pre-validated documentation for contracts relieved from a major burden
- Easy access through Web based access supported by an IT professional organization – relieved from struggle and annoyance
- Documentation available when needed in design reduce risk of delayed design conclusions
- Engineers relieved from a boring task reduce stress
- More capacity and energy on package design documentation enhanced control and quality of the total design



Status – EqHub implementation

<u>42 Frame Agreements' (FA's) of</u>

relevance in progress

27 FA's Eq delivery
14 off OK no impact
2 off OK with cost impact
11 off in negotiation process
0 off not accepted

15 FA's Package delivery
6 off OK no impact
4 off OK with cost impact
4 off in negotiation process
1 off not accepted

Main challenge for EqHub "roll out" is to find a fair pricing model



PCA Forum & Members Meeting Aker Solutions and ISO15926





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