NORSOK D-010

Well Integrity Standard

2 Day Course

add energy

THE NORSOK D-010

is the only holistic well integrity standard in the world...

that addresses well integrity throughout the life cycle of the well, starting with well construction (drilling, underbalanced/managed pressure drilling, completion, testing), through its service life (production, pumping) including remedial intervention activities (wire-line, coiled tubing, snubbing), before terminating the well (abandonment activities).

The standard focuses strongly on the establishment of well barriers and well barrier elements and, how these are accepted and monitored to prevent loss of integrity that ultimately could lead to a blowout. The standard is logically divided into thematic sections, and contains prescriptive requirements and guidelines. It gives a good basis for assisting you with preventing and solving well integrity issues.

The standard is a result of a continuous cooperation between Norwegian based operators and service companies. The standard is also gaining momentum outside Norway, and is currently used in Australia, Brazil and Canada. The standard was newly revised in June 2013 (NORSOK D-010 Rev. 4) and can be downloaded free of charge from this website: www.standard.no

add energy

YOU WILL LEARN

The general principles of the two barrier concept, which is not difficult but challenging when you are facing real decisions that cost money. The well construction activities will be addressed with this as a base, starting with drilling of the well, through well testing/completion and ending with abandonment. Well intervention / well servicing will be briefly presented. We will also discuss the importance of blowout control and contingency planning and how this is reflected in the standard. The material is presented by reputable and experienced engineers and will end with a group exam to be solved on the basis of D-010. We have chosen also to discuss real case studies to increase the understanding and relevance of well design, and for the day to day well operations. A certificate of attendance will be issued at the end of the course.

add energy

COURSE PRESENTORS

Terje Løkke-Sørensen

was integral to the last 2 revisions of the D-010 standard. As Chairman of this standard for Rev. 3 (2003) and Rev. 4 (2013) he was tasked with recommending structural and content changes, coordinating input from over 20 industry experts as well as authoring several sections himself, (sections 1 through 4). Terje is a graduate M.Sc. Petroleum Engineer from the University of Trondheim, Norway. He has worked over 25 years for various operators and service companies, both as an employee and consultant. He has authored several well integrity manuals and gives speeches/courses in D-010. Terje lives in Oslo, and works for add energy in the role of Well Engineering Manager.

Ole B. Rygg

who is a recognized blowout expert, was directly involved in the profiled well kill operations on Montara (Australia), Macondo (GoM) and Elgin (North Sea). Ole's team has conducted more than 1,200 well contingency studies and been involved in more than 60 real-life blowouts, worldwide. Ole holds a PhD in fluid mechanics from the University of Oslo, Norway. For the last 25 years he has been working on blowout control and contingency planning projects for operators all over the world. Ole lives in Oslo and heads the Well Control and Blowout Support group in add energy.

add energy

AGENDA

DAY 1

TIME	THEME	CONTENT
09:00 – 12:00	General principles	Terminology & definitions, well barrier schematics, well barrier elements, construction principles, pressure/in-flow testing, formation integrity, well shut in, well design, ... and more
12:00 – 13:00	Lunch	
13:00 – 14:00	Drilling	Well barriers in drilling, drills, casing design, shallow gas, wellbore proximity, BOP testing frequency, acceptance
14:00 – 15:00	Blowout control and contingency planning	General principles of planning and preparedness for blowouts response; estimation of flow rates kill options, intervention, relief wells, ... and more
15:00 – 16.00	Completion	Well barriers, drills, design, production, gas lifted wells, injection wells
16:00 – 17:00	Open session	Opportunity to raise and discuss issues – can D-010 guide you

DAY 2

TIME	THEME	CONTENT
09:00 – 10:00	Abandonment	Well barriers, acceptance criteria for casing cement and cement plugs
10:00 – 11:00	Case study	Focus on well integrity in all phases of the well
11:00 – 12:00	Well killing and relief well drilling	Real life case – focus on what to consider and how to do it. Preparedness, planning and execution - how could it influence your well planning and well integrity?
12:00 – 13:00	Lunch	
13:00 – 16.00	Group work	The participants will be split in groups of 3-4 persons. Through these exercises, the participants will use the standard to solve well integrity issues and present their results

REGISTER AND PAYMENTS

You can register here:

Please register by using the registration form or by contacting addlucid@addenergygroup.com before 10th March 2014 providing your company name, name of all attendees and primary contact for the booking.

Substitutions

Substitutions are accepted.

add energy

REGISTRATION FORM

NORSOK D-010 Well Integrity Standard Course – 2 Days

Course dates:

Registrant(s):

NAME	E-MAIL	PHONE

Organization:_____

Contact Person (if not registrant):_____

Contact Email Address:_____

Dietary requirements:_____

Signature:_____

Date:_____

Please complete and email back to:

If you have queries regarding registration please feel free to contact us on the above email OR call us on

add energy

add energy

addenergy@addenergy.no
www.addenergy.no