Minutes of the Twenty
Second Meeting of the

**Industry Steering
Committee on
Wellbore Survey
Accuracy**

And

**SPE Wellbore
Positioning Technical
Session**

Dallas, Texas
Oct 13th 2005

Attendees:

Name	Company	E-Mail
Andy Brooks	Baker Hughes	andrew.brooks@bakerhughes.com
Harry Wilson	Baker Hughes	harry.Wilson@inteq.com
Robert Estes	Baker Hughes	robert.estes@bakerhughes.com
Aubrey Holt	Beach Tree	aubrey.holt@beachtree.net
Bill Calhoun	Chevron	wmca@chevron.com
Ed Stockhausen	Chevron	edjs@chevron.com
Olli Coker	Conoco Phillips	olli.coker@conocophillips.com
Steve Grindrod	CopseGrove	steve@copsegrove.co.uk
Jon Stigant	Devon	jon.stigant@dvn.com
Christopher Simon	Drillscan	christopher.simon@drillscan.com
Ludovic Macresy	Drillscan	ludovic.macresy@drillscan.com
Bill Elks	ExxonMobil	william.c.elks@exxonmobil.com
Noel Zinn	ExxonMobil	noel.zinn@exxonmobil.com
John Barlow	Gyrodata	johnb@gyrodata.com
Roger Ekseth	Gyrodata	rogere@gyrodata.com
Steve Mullin(**)	Gyrodata	stevem@gyrodata.com
David Chen	Halliburton	david.chen@halliburton.com
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Paul Rodney	Halliburton	paul.rodney@halliburton.com
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Gerard Hohner	SEG	segmunich@compuserve.com
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Brian Schostak	Shell	brian.schostak@shell.com
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Dave McRobbie	Sperry Sun	dave.mcrobbie@halliburton.com
Patrick Knight	Sperry Sun	patrick,knight@halliburton.com
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Stein Havardstein	Statoil	steint@statoil.com
Angus Jamieson*	TECH21	T21es@aol.com
Regis Studer	Total	Regis.studer@total.com
Mike Nero	Weatherford	Mike.nero@weatherford.com

* Chair
** Minutes

1. John Turvill (Paradigm) welcomed everyone to Dallas. He explained the emergency instructions for the building and outlined the timings for breaks and meals for the day. The committee members are very grateful to John and Paradigm for organizing the meeting facilities. Meetings in non company owned facilities are only possible through considerable work and expense.

2. Steve Mullin (Gyrodata) outlined the agenda for the day and updated the group on the plans for an SPE ATW on Wellbore Positioning to be held in 2006. An inaugural meeting of the organizing committee was held at the SPE office in London. Bill Calhoun of Chevron is the drilling co-chair and invitations to prospective G&G co-chair are in process.

3. This was the first meeting of the committee with Angus Jamieson (Tech 21) as Chairman. Angus spoke of his vision for the future development of the committee. He hopes that the committee will take on a more international role and become involved in the education of the industry on well positioning issues. Angus also said that wellbore positioning is more than just a "drilling issue" and the committee should seek to increase the involvement of G&G personnel in committee activities.

SPE Wellbore
Positioning Technical :

4. The first presentation of the day was given by Regis Studer (Total), Christopher Simon and Ludovic Macresy (Drillscan) on their work to develop a new three dimensional sag correction method.

Presentation SAG
1.0.0.ppt

The presentation generated much discussion on the possibility of improved sag corrections and the subsequent refinement of sag error terms. In the interest of time it was decided to continue the discussions in the Depth sub-committee meeting the next day.

5. Harry Wilson (Baker Hughes) led a discussion on the handling of model updates and maintenance issues. At a previous meeting it was decided that a permanent sub-committee was required to manage model maintenance. Ian Farmer (B.P.) was to have been chairman but Ian subsequently left B.P. and the committee.

   Chris Chia (Schlumberger) questioned the method of formation of sub-committees and the nomination of their chairmen, in light of the important work they will undertake. It was agreed that sub-committees should be formed and tasked by the main committee. Chairmen should be proposed and elected at main committee meetings.

   Steve Grindrod (CopsGrove) was proposed and elected as chair of the Error Model Management Sub-Committee.

   Chris proposed that the sub-committee should be tasked to work on a re-vamp of the error model papers to improve implementation and make them more accessible. This was voted on and agreed.

   Wayne Phillips (Schlumberger) was appointed as an additional member of the sub-committee.

6. Roel Nicolai (Shell) gave a presentation on the European Survey Groups Dataset. The dataset is available online at www.epsg.org . It is a valuable tool for use in the management of coordinate systems and datum's.

EPSG Dataset v1.ppt

7. John Stigant (Devon) presented a talk he prepared for the SEG conference in Houston, November 2005, entitled, Connecting the Dots – A Model for Enterprise Wide Excellence in Spatial Management. We were very fortunate that John agreed to show us the talk before making it to the SEG.

John_Stigant.ppt

8. Andy Brooks (Baker Hughes) spoke about handling measured depth terms at the tie on point. Andy asked that the slides be posted on the web-site because the depth paper doesn't deal with this adequately.

depth_tie_on.ppt

9. Andy also addressed the issue of an alternate method of calculating tool face dependant errors. This was a follow up from Andy's presentation at meeting 21. Andy now has some worked examples and confirmed that the way the gyro error model handles these error terms works correctly. He suggested this method should be adapted to the magnetic model.

TF_dependent.ppt

10. John Turvill asked for input into a planned well trajectories data format to be proposed for WITSML.

11. Noel Zinn (ExxonMobil) presented his paper "Accounting for Earth Curvature in Directional Drilling – SPE 96813."

Accounting for Earth Curvature.ppt

12. Angus led a discussion relating to the committee funding research work in the future and how funds could be raised to accomplish this. Robert Estes (Baker Hughes) suggested a membership fee. Olli Coker (Conoco Phillips) suggested that attendance fee' for committee meetings are more easily accepted by managers, Roel Nicolai supported this suggestion. **A vote was held on the concept of attendance fee's for future meetings and passed.**

13. Propositions and voting for some committee officer positions that are due for change resulted in the following being elected.

Steve Mullin – Membership Chairman

Robert Wylie – Treasurer

Harry Wilson – Secretary

These newly elected officers will assume their positions at the next meeting.

14. Chris Chia presented work from a technical venture between Schlumberger and Statoil on a new depth correction method for both wireline and drill pipe.

ISCWSA 22 Depth.pdf

15. Discussions regarding the date and location for the next meeting resulted in the decision that Angus should contact the SPE office in Dubai to determine their interest in hosting the next meeting. The outcome of discussions to be communicated to members as soon as possible.

Depth Sub Committee Meeting

October 14th

Attendees:

Angus Jamieson

Wulf Luther

Gerard Hohner

Steve Mullin

David Chen

Dave McRobbie

Lill-tove Andreassen

Chris Chia

Noel Zinn

Alan J Heath

Steve Grindrod

Patrick Knight

Bill Calhoun

John Barlow

John Turvill

Paul Rodney

Andy Brooks

Runar Nyberg

Stein Havardstein

Ludovic Macresy

Christophe Simon

Ed Stockhausen

Regis Studer

1. Chris Chia gave an update on the survey chapter being written for the revised SPE drilling handbook.

2. Chris pointed out that the nomenclature list is now published on the website and asked for feedback.

3. Harry Wilson repeated his presentation of the depth paper.

SPE 95611
presentation 10 Oct.

4. It was agreed that the depth committee should discuss if the use of bias should be a recommendation.

5. Ed Stockhausen suggested that the model management sub committee should discuss making the survey interval term non tool face dependent.