ISCWSA - Operators Wellbore Survey Group (OWSG) Meeting
Held at Talisman, Woodlands, TX
03 April 2013 – 11:00 – 17:00

Agenda:

- Welcome & Agenda (Neil / Chris)
- Site Safety Orientation – (Chris)
- Anti-Trust Statement - Modification (Neil)
- Mission Statement – discussion and adoption (Neil)
- Highlights of ISCWA #37 Meeting (Pete / Son)
    - Inclination only recommendation of the error model
- Discussion of meeting format / locations to allow international participation
- Support for expansion and maintenance of e-book "intro to Wellbore Positioning"
- Standard Tool Error Model Set – Progress update (Son)
- Raw Data and P7 Update (Pete / Mark)
- MWD QA/QC and JORPS (Lisa / Roger)
- Inclination only and economical alternatives (Neil)
- Directional Drilling Surveillance (Jonathon)
- Potential Calibration – Wellbore Position in Arctic Locations (Son / Lisa)
- Next Meeting – Agenda Topics, Date, and Location (Neil)
- Other business as needed
- After meeting social hour with Stefan Maus (MagVAR)

Attendance & Contacts – see attached spreadsheet

Meeting Notes:

- Safety orientation (Chris)
- Safety Moment – Frac job where two strings of casing parted. The 7" and surface casing blew out of the hole and severely damage rigsite and rigsite equipment. Emphasis following standards. (Chris)
- Talisman welcome to facility and discussed general overview of company's operation. Operating in EF, Marcellus, Malaysia, P. NG, Aberdeen, etc.
- Mentioned that DEA-164 was terminated
- Reading of the Anti-Trust statement – replace "best" with "good" practices. Agreed on the change by verbal vote of confirmation
- Mission statement
    - Questions by members if the mission statement is too narrow
    - Looking at the statement again that is appropriate for a work group
    - Expressed that the statement should not be restrictive in what the group able to take on as new work scope.
    - Statement accepted and open to changes for the future.
- Highlight of ISCWSA #37 Meeting in Paris (Pete Clarke)
    - Well Intercept Sub-Committee
    - Education Sub-Committee
        - How to fund the expansion of the manual some ideas are:
            - Potential donations by operators
            - Some companies were interested in directly contributing towards the development of 1) target sizing and 2) surface positional measurement and uncertainty
        - SPE 163411
    - Model Maintenance and Collision Avoidance sub-committee

        - Recommended practice for inclination only – different if 1) inclination is estimate azimuth and 2) inclination only
    - Meeting had 9 operators and 14 reps
    - Proposed that we continue meeting in Houston as usual and then have meeting during main ISCWSA meeting.
    - Proposed that the operator have dinner on the first day as an informal gathering
- Introduction
- LinkdedIn Status update
    - OWSG group
    - ISCWSA group
    - Closed group to control entry and eliminate spam
    - Son Pham proposed to be added to the OWSG
    - Proposed that Phil Harbidge added as a manager for ISCWSA group
    - Compared with other relevant LinkedIn group
    - How do we learn from collision incidents or near misses… is LinkedIn a venue to learn.
- Standard Tool Error Model Set – Progress report
- Next meeting – proposed one meeting in early June (first week of June Thursday) and another in early August (First week). ISCWSA in October in New Orleans
- Data Transfer format standards
    - Will be meeting with vendors and service companies
    - Mark, Roger, and Son will help Pete with meeting with vendors (Baker, Halliburton, Benchtree, GE, etc.)
    - OGP P7 – Mark andNeil,
- Survey database management - Roger
    - Objective is to minimize gross errors
    - Gap assessment
    - Develop common practices to ensure compliance to BP standard
    - Surface scan of 15 miles
    - Need raw data to validate survey data – putting JORP data to ensure acquisition of raw data
    - Auditable process to eliminate gross error and assure the highest data quality.
    - Orientation for all new personnel in the a particular field
    - Use of Owl to pull public domain well data
    - Each well needs independent measurements to validate survey data
    - How are improved data are transferred to their party and the government
    - Powerexporer software to look at global surface locations.
    - Data change consist of 1) cosmetic or 2) critical change
    - Time validate data went from 3 wks to 3 months due to time involved in locating data. The survey workbook facilitate collection of survey data. Workbook stored in Compass as an attachment. And then file stored in the server and a GUI is used by Google Earth to pull up the file.
    - Simplify data structure (combine data under various names i.e. production, drilling, etc)
    - Action Tracker – Track all the changes
    - Well Placement Common Process
        - Naming Convention (legal name takes priority over common name) – can switch between legal name and common name
        - Action Tracker – in order to audit all changes
        - Audit Checklist
            - To eliminate gross errors
        - WCL – Well Cordinance log – performed once a week
        - JORPS
        - Training – JORPS, Traveling Cylinder, Conformance, - Two years qualifications

        - Website
- Directional drilling surveillance
    - Comparing Tortuosity – planned vs. actual to detect wellbore quality
    - Detecting drilling problems
    - KPI to compare drillers and / or drilling teams
    - QA/QC course lengths
    - Visual tools to view and compare wellbore position
    - Distance from plan can be a good addition to the plot
    - Ed does not see correlation with Torque and Drag (other factors affecting the drilling condition).
    - Torque and Drag rig trends
    - Indication of read condition to analyze the well condition
    - Can use as a tool to obtain tortuosity values
    - Looking to convert to Real-time capabilities