Well Intercept Sub-Committee

Roger B. Goobie



The Industry Steering Committee on Wellbore

Survey Accuracy (ISCWSA)

Attendance

Highlights

- 1) Lower turn out due to the current state of the industry.
- 2) Some members of this committee had a clash with either presenting at the SPE
- 3) Or with another ISCWSA sub-committee meeting
- 4) Reduction in participation by 42%
- 5) However, we added 2 new members to the team.

| S/N | Name | Affiliation | |
|-----|-------------------|---------------------|--|
| 1 | Roger Goobie | BP | |
| 2 | William Allen | ВР | |
| 3 | Dan Eby | Blowout Engineers | |
| 4 | Son Pham | Conoco Phillips | |
| 5 | Nestor Sanchez | Conoco Phillips | |
| 6 | Pete Schiermeier | Halliburton | |
| 7 | Patrick Knight | Halliburton | |
| 8 | Chad Hanak | Intuitive Mechanics | |
| 9 | Patrick Walker | Magvar | |
| 10 | Clint Moss | Marksman | |
| 11 | Ross Lawdon | Schlumberger | |
| 12 | Phil Harbridge | Schlumberger | |
| 13 | Mike Terpening | Schlumberger | |
| 14 | Benny Poedjono | Schlumberger | |
| 15 | Brett VanSteenwyk | Scientific Drilling | |
| 16 | Shawn DeVerse | Surcon | |
| 17 | Mo Amer | Wild Well | |
| 18 | Joe Burke | Wild Well | |
| 19 | Jim Woodruff | Wild Well | |

| S/N | Name | Affiliation | |
|-----|-------------------|---------------------|--|
| 1 | Roger Goobie | ВР | |
| 2 | Son Pham | Conoco Phillips | |
| 3 | Nestor Sanchez | Conoco Phillips | |
| 4 | Avinash Ramjit | Conoco Phillips | |
| 5 | Pete Schiermeier | Halliburton | |
| 6 | Chad Hanak | Intuitive Mechanics | |
| 7 | Clint Moss | Marksman | |
| 8 | Brett VanSteenwyk | Scientific Drilling | |
| 9 | Shawn DeVerse | Surcon | |
| 10 | Joe Burke | Wild Well | |
| 11 | Heatrher Vannay | EOG | |



Mission

Current

"To disseminate knowledge related to ranging technology, techniques and methods that provide value to the industry for relative wellbore positioning."

With a focus on the following areas:

- Enhance safety and production
- Wellbore avoidance
- Wellbore intervention
- Plug and Abandon operations
- Contingency preparation
- Emergency response





Meeting Objectives

- 1) Wrap up the Lexicon
- 2) Update the Bibliography
- 3) Discuss the eBook Score Card and the progress we have made to date
- 4) Discuss how the section can work on documenting other challenges associated with intercept strategies
- 5) Discuss the possibility of adopting <u>SPE 173097</u> as a framework / guide for relief well geometric planning
- 6) Other business... (Set forth a working agenda to deliver the above in a systematic and timely manner)





Milestone



43rd

- Complete 1st draft of guide
- Publish guide on ISCWSA.net

44th

- Assemble team to write SPE paper
- Build upon the work done on SPE17309

45th

- Deliver SPE paper to the industry
- Deliver eBook on Well Intercept





SPE / Halliburton Agreement

Highlights

- Agreement reached between SPE ISCWSA and Halliburton on 27th October 2015.
- To use the Halliburton document "Customer Guide to Relief Well Ranging" without any copyright violation.
- 3) Liability disclaimer wrt the use of the information the SPE produces.
- 4) SPE agree to provide Halliburton with a draft copy of the final document for their approval before publication.

HALLIBURTON

Halliburton Energy Services, Inc. 10200 Bellaire Blvd. Houston, TX 77072-5206

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Date: 27 October 2015

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Accepted and agreed by SPE this 27 day of October, 2015.

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SPW ISCWSA WISC eBook

| | Road Map to eBook | | | | |
|-------------------|---------------------|---|---|--------------------|--------------------------------|
| Name | Affiliation | Introduction to | to Well Intercept Technology and Techniques Considerations | 1st Draft Due Date | Update 03-03-16 % Completed |
| Roger Goobie | ВР | | General introduction, needs to be in line with the sub-committee Mission Statement. | | |
| William Allen | ВР | Introduction and Well Intercept History | We will need some help here from the other team members wrt History. | 15th Dec 2015 | 75% |
| Shawn DeVerse | Surcon | | | | |
| Chad Hanak | Intuitive Mechanics | | Active | | |
| Dan Eby | Blowout Engineers | Passive Magnetic Ranging | Passive | 15th Dec 2015 | 75% |
| Patrick Walker | Magvar | | Table with existing Technology and Company | | |
| Clint Moss | Marksman | | Access Dependent | | |
| Macresy Ludovic | Path Control | Active Magnetic Ranging | Access Independent | 15th Dec 2015 | 25% |
| Brett VanSteenwyk | Scientific Drilling | | Table with existing Technology and Company | | |
| Benny Poedjono | Schlumberger | | Active | | |
| Ross Lawdon | Schlumberger | Acoustic Ranging | Passive | 15th Dec 2015 | 25% |
| Phil Harbridge | Schlumberger | | Table with existing Technology and Company | | |

| Key | |
|--------------------------|--|
| Chapter Team Lead | |
| 0 ≤ % Completion ≤ 25% | |
| 26 < % Completion ≤ 75% | |
| 76 < % Completion ≤ 100% | |





SPW ISCWSA WISC eBook

| Pete Schiermeier | Halliburton | | This is well written in the current Halliburton document | | |
|------------------|-----------------|---|--|-------------------|------|
| Patrick Knight | Halliburton | Relief Well Ranging Operation | Will need to remove marketing and commercial jargon | 15th Dec 2015 | 75% |
| Mike Terpening | Schlumberger | · | | | |
| Jim Woodruff | Wild Well | | Should not be limited to Relief Wells only | | |
| Mo Amer | Wild Well | Well Intercept Design Considerations | Consider including some case studies, twinning techniques etc | 15th Dec 2015 | 25% |
| Joe Burke | Wild Well | | Consider applications outside the oilfield (river crossing) etc | | |
| Son Pham | Conoco Phillips | | Need to laise with Chapter Team Leads to review as progress is made. | 4511 1 2046 | 2577 |
| Nestor Sanchez | Conoco Phillips | Reviewers | Review Chapters for Technical Content and Clarity | 15th January 2016 | 25% |

Score Card Assessment

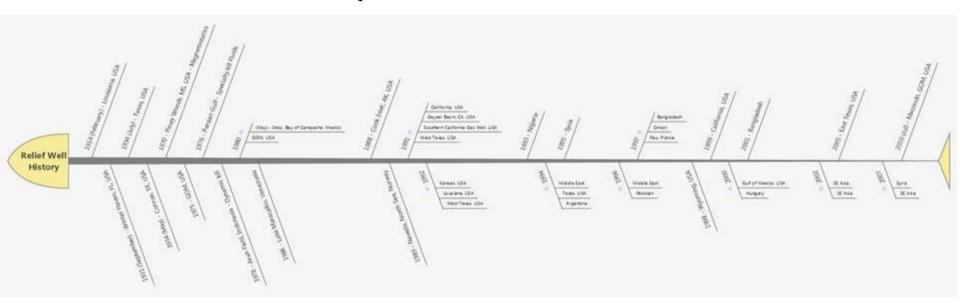
Are we committed to making this vision a reality for the industry?
 YES WE ARE!

| Key | | |
|--------------------------|--|--|
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| 26 < % Completion ≤ 75% | | |
| 76 < % Completion ≤ 100% | | |





Questions



Major Highlights 1914 - 2016



