



OWSG & RP 78 Update

Sub-Committee Report for Mtg. 57



Agenda

- Introduction
- Meetings
- How to Join
- Attendees
- Topics
- RP 78 Update
- AADE NTCE RP 78 Intro Paper

Our Mission

To promote practices that provide confidence that reported wellbore positions are within their stated uncertainty.

OWSG Meetings in 2022-23

- **May 23, 2023 (Mtg 24)**
- **April 11, 2023 (Mtg 23) – Ideas & Case Studies**
- [February 7, 2023 \(Mtg 22\)](#)
- [December 1, 2022 \(Mtg 21\)](#)
- [September 28, 2022 \(Mtg 20\)](#)
- [August 9, 2022 \(Mtg 19\)](#)
- [June 14, 2022 \(Mtg 18\)](#)
- [January 25, 2022 \(Mtg 17\)](#)





Join the OWSG

- Go to www.ISCWSA.net
- Select: **SUBCOMMITTEES** from the upper dropdown menu
- Select: **OPERATOR'S WELLBORE SURVEY GROUP**
- Click on the Chair's Name: Jonathan Lightfoot
- Send an email and ask to be added to the Teams Meeting Distribution List
- Meetings are Open for Anyone
- Please email me in advance of the meeting if you have Ideas, Suggested Topics, Issues or Case Studies
- If you would like to be Chair just ask! Happy to continue but happy to allow someone else to do the job.

A screenshot of a web browser displaying the ISCWSA website. The URL in the address bar is https://www.iscwsa.net/committees/operator-wellbore-survey/. The page features a blue header with the ISCWSA logo and navigation links: JOIN ISCWSA, CONTACT US, GET UPDATES, ABOUT, RESOURCE LIBRARY, E-BOOKS & VIDEOS, and MEETINGS. Below the header is a decorative image of a wellbore. The main content area is titled 'OPERATOR WELLBORE SURVEY GROUP SUB-COMMITTEE'. It includes a 'Mission' section with the text: 'To promote practices that provide confidence that reported wellbore positions are within their stated uncertainty.' An 'About' section follows, mentioning 'Instrument Performance Model (IPM) Specification Spreadsheets for sets A & B are available on the Error Model Maintenance Sub-Committee Page:' and providing a link to 'Error Model Documentation'. It also states: 'Please contact OWSG Chair Person Jonathan Lightfoot if you would like to participate in the Operator Wellbore Survey Sub-Committee.' Below this is an 'Officers' section with a table.

Position	Name	Contact
Chair	Jonathan Lightfoot	jonathan_lightfoot@oxy.com



Wellbore Positioning Technical Section



The Industry Steering Committee on
Wellbore Survey Accuracy (ISCWSA)

Attendees

Meeting Lookback

- Total: 89
- Average: 18 per Mtg.
- Avg. Operator: 13
- Avg. Non-Op: 6

Name	Affiliation	25-Jan-2022	9-Aug-2022	28-Sep-2022	1-Dec-2022	7-Feb-2023	Total
Jonathan Lightfoot	Oxy	✓	✓	✓	✓	✓	5
Will Tank	Oxy	✓	✗	✓	✗	✓	3
Pete Clark	Chevron	✓	✓	✓	✗	✓	4
Kevin Sutherland	Chevron	✓	✗	✗	✗	✗	1
Dalis Deliu	ConocoPhillips	✓	✓	✓	✓	✓	5
Nestor Sanchez	ConocoPhillips	✗	✓	✓	✗	✓	2
Heather Vannoy	EOG	✓	✓	✓	✗	✓	4
Price Maxwell	Oxy	✗	✗	✓	✓	✓	3
Hans Dreisig	Total	✓	✓	✓	✓	✓	5
Marianne Houbiers	Equinor	✓	✓	✓	✓	✓	5
Matt Weber	Shell	✓	✗	✓	✓	✗	2
Bill Allen	BP	✓	✓	✓	✓	✗	4
Nicholas Robertson	BP	✓	✓	✓	✓	✗	4
Juan Jose Exposito	Cepsa EP SA	✗	✗	✓	✓	✗	2
Petter Kvandal	Aker bp	✗	✗	✓	✓	✗	2
Frank Gao	Oxy	✗	✗	✓	✗	✗	1
Tatiana Gobert	Oxy	✗	✗	✓	✗	✗	1
Ryan Carlson	ExxonMobil	✓	✗	✓	✗	✗	2
Juan Sierra	Oxy	✗	✗	✓	✗	✗	1
David Baker	ConocoPhillips	✗	✓	✓	✗	✗	2
Fauzia Waluyo	Aramco	✗	✓	✗	✗	✗	1
Knut Ness	ADNOC	✓	✓	✗	✗	✗	2
Ali Karimi	Oxy	✗	✓	✗	✗	✗	1
Jacob Gauthier	BPX Energy	✓	✗	✗	✗	✗	1
Chad Dubois	ExxonMobil	✓	✗	✗	✗	✗	1
Name	Affiliation	25-Jan-2022	9-Aug-2022	28-Sep-2022	1-Dec-2022	7-Feb-2023	Total
David Gutierrez	Superior QC	✗	✗	✓	✓	✗	2
Mike Calkins	ThreeSigma Well Design, LLC	✗	✗	✓	✓	✓	3
Tim Paton	Superior QC	✓	✗	✓	✗	✓	3
Marc Willerth	HP Tech	✓	✓	✓	✓	✓	5
Jerry Codling	Halliburton	✗	✗	✓	✓	✓	3
Adrian Ledroz	Gvrodatsa s/b	✓	✗	✓	✓	✓	4
Ross Lowdon	s/b	✗	✗	✗	✓	✗	1
Phillip Gurden	Gurden Tech Consultancy	✗	✗	✓	✗	✗	1
Chad Hanak	Superior QC	✗	✗	✓	✗	✗	1
Phillip Harbidge	Path Control	✗	✗	✓	✗	✗	1
Gary Skinner	Baker Hughes	✓	✗	✗	✗	✗	1



Mtg. Topics

- API RP 78 (Every Meeting)
- Maximum Survey Interval – Implementation Challenges
- 5-1 Error Models, Data Movement & Dispensation Practices
- IADC Technical Publications Committee (Volunteer Opportunity)
- Advanced Trajectory Designs (3D Curves, Catenary, Bezier, Spline-in-Tension)
- Wellbore Quality Metrics, IOGP P7, MWD Sensor Calibration & Lab Stds.
- Wits-Level 7 Survey Object Table, Cone of Uncertainty Models, Sustained Inc. Calc
- Measure of Lateral Straightness Calculations
- Upcoming Industry Events (IADD, Geothermal, OWSG, SPE, IADC, etc.)



API RP 78 Update

Progress Update



Wellbore Positioning Technical Section

FINAL EDITS - MARCH

API RP-78 WORKGROUP LEADER REVIEW

FINAL VERSION PREP API BALLOTING – MAY

183 TOTAL PAGES

- MAIN RP BODY: 88 PAGES
- ANNEX: 44 PAGES
- BIBLIOGRAPHY: 6 PAGES

ANNEX A, B, & C

- A: SURVEY MATHEMATICS
- B: DEPTH PROCESS AUDIT
- C: MAGNETIC, DEPTH AND GYRO
 SURVEY QA/QC

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RP 78 Task Group Leaders

- Original Section Leaders & Technical Leaders for Each Category
- Pre-Ballot Draft to be Posted on API RP 78 Task Group SharePoint Site - End of March

Section	Leader	Technical
Anti-Collision	Steven Sawaryn	Pete Clark
Database	Jordon Meyer / Mary Malihpour	Maria French
Directional Survey Records	Jonathan Lightfoot	Michael Long
Glossary	Son Pham	Maria French
Maps, Plots and Visualization	William Allen	Kevin McClard
Operation / Execution	Ed Dew	Benny Poedjono
Planning / Engineering	Pete Clark	Julie Cruse
Purpose and Scope	Ben Coco	Jonathan Lightfoot
QA/QC Depth	Roger Goobie	Harold Bolt
QA/QC Gyro	Roger Goobie	Adrian Ledroz
QA/QC Magnetic	Roger Goobie	Andy Brooks
Software	Bill Allen	Stuart Sargent
Survey Mathematics	Pete Clark	Chad Hanak
Survey Program	Lisa Grant	Ross Lowdon
Transition / Handover	Will Tank	Benny Poedjono
Well Origin / Surface Location	Bert Kampes	John Connor



AADE NTCE

Intro to RP78 Paper

April 4-5, 2023



Wellbore Positioning Technical Section



The Industry Steering Committee on Wellbore Survey Accuracy (ISCWSA)

The American Petroleum Institute (API) recently undertook development of a document called Recommended Practice 78, Wellbore Surveying and Positioning, (RP 78), a modern technical industry standard for wellbore placement that can be applied to all wellbore construction applications. The standard is intended to serve as the primary technical reference for proven engineering practices in the application of oil and gas, geothermal, carbon sequestration, coalbed methane (CBM), horizontal directional drilling (HDD) trenchless boring, mineral ventilation and extraction, scientific coring, and all other subsurface borehole construction applications.

API RP 78's development was led by a group of independent consultants, industry experts, academia, and representatives from public and private energy operators. The Operator's Wellbore Survey Group (OWSG), that later became an official sub-committee of the Industry Steering Committee on Wellbore Survey Accuracy (ISCWSA), initiated the project after a poll of operator members showed the need for a set of minimum industry requirements for wellbore construction, safe-separation, and positioning. The ISCWSA is equivalent to the Society of Petroleum Engineers (SPE) Wellbore Positioning Technical Section (WPTS). The establishment of this standard, made available through API's standards development process, will provide modern practices for all subsurface boring industries, beyond just oil and gas applications.





API RP 78 Contributors

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Questions

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