



Geophysical Society of Pittsburgh



*Proudly Presents Tuesday, February 2nd, 2021
Zoom meeting*

Interactive Well Path Planning Using Geoscience Data

Joseph P. Dominguez, CGG Geosoftware

Effective interactive 3D well path planning requires integration of all available geological and geophysical data and interpretations, locations and paths of planned and existing wells, and cultural data.

InsightEarth's 3D environment streamlines the process by eliminating the need to move data back-and-forth between well planning and geoscience teams throughout the planning process. It can provide a large number of efficiency improvements, well path optimization, wellbore collision risk minimization, and improved rate of return on capital investments.

Case Studies using this workflow include:

- Permian Basin: Illustrates the use of geophysical data to: 1) identify and avoid shallow drilling hazards using EM data volumes, and 2) prioritizing well paths based on estimated 3D fracture density, rock density and brittleness while avoiding completion-fracture communication between adjacent wells.
- Barnett Shale: Shows well path placement to remain in the geophysically identified optimum reservoir facies while maximizing the interception of identified natural fracture swarms.
- Carnarvon Basin: Demonstrates effective well path placement using a combination of sand probability, porosity and structure volumes to intersect multiple stacked sand channels. The system is water drive so the task is to achieve structurally high take points while minimizing the number of needed wellbores.

See InsightEarth's interactive 3D well path planning system, WellPath. Co-render geophysical/geological data and interpretations to enable planning and optimization of well paths, platforms/pads, and development plans - all while minimizing wellbore collision risks, adhering to industry standards, and maximizing potential performance of the overall development plan.

*Please RSVP using the PayPal link on the Geophysical Society of Pittsburgh website at: www.thegsp.org
Cost: Free for GSP Members, \$10 Non-members (\$10 for Students)*

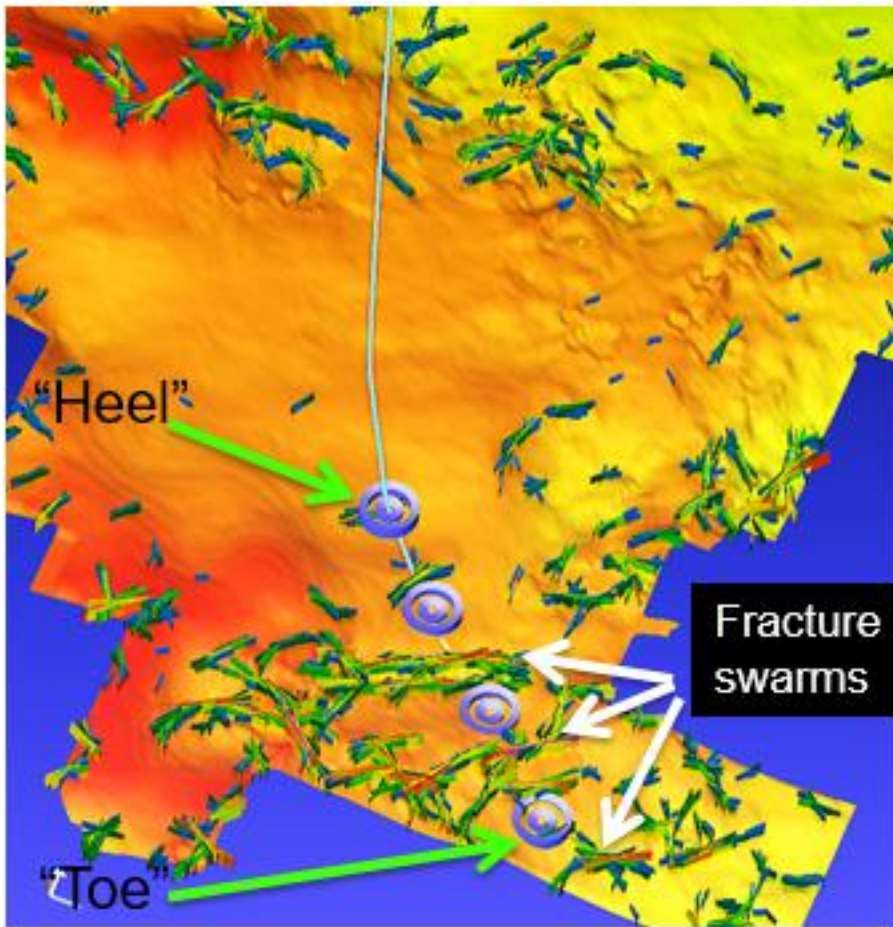
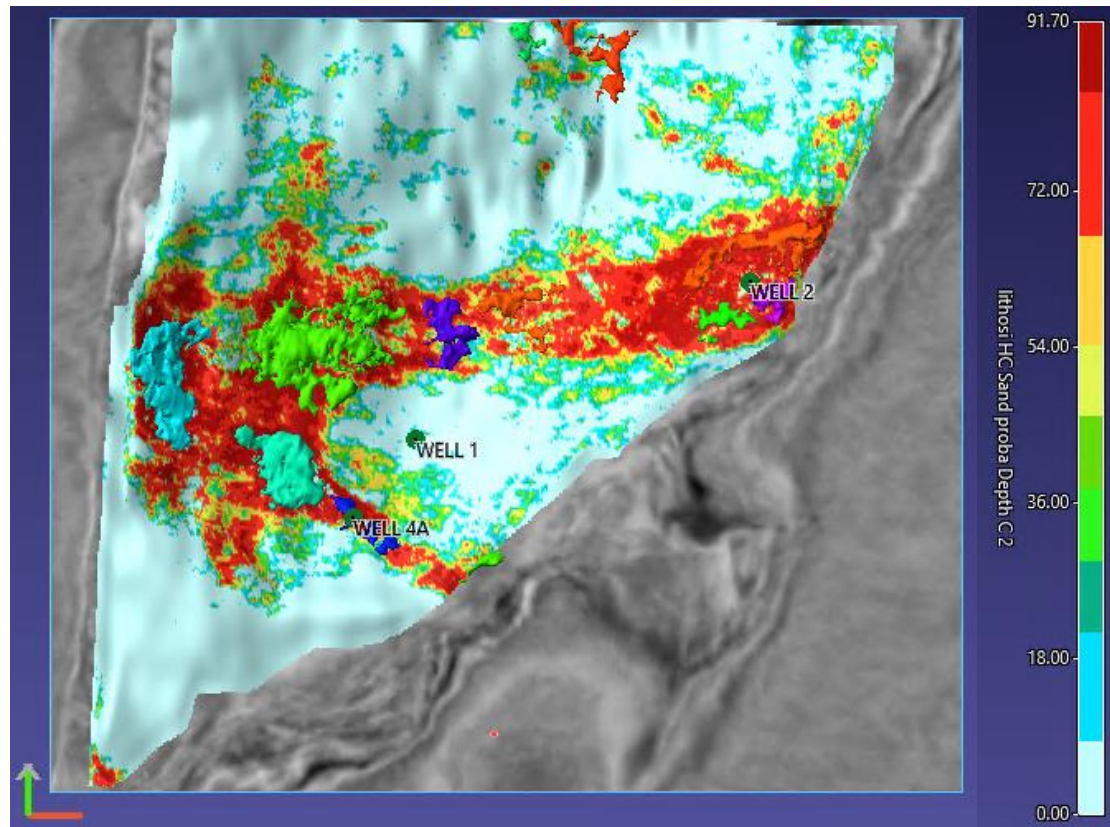


Illustration 1. A Barnett well plan showing the landing target at the top of best reservoir facies geobody, then targets making the lateral traverse perpendicular to multiple fracture swarms.

Illustration 2. A Carnarvon Basin Triassic channel sand map showing sand probability greater than 65%, co-rendered with geobodies of porosity greater than 20%. Prior drilling proves a water drive system so developing the best reservoir characteristics while remaining structurally high is imperative.



Speaker's bio: Joseph P. Dominguez

Joe Dominguez has been with CGG GeoSoftware since 2014 and is currently responsible for managing the InsightEarth and VelPro product lines. He brings 40 years of multi-tiered experience in geosciences consulting; geoscience management, interpretation; and exploration and production operations. Mr. Dominguez holds a B.Sc in Geophysics from Virginia Polytechnic Institute.

Some of his accomplishments include:

Created the InsightEarth post stack fracture workflow method

Prior to CGG GeoSoftware acquisition of TerraSpark Geosciences, LLC, Joe served as TerraSpark's Vice President of Interpretation and Consulting Services

General Partner and Vice President of Sherpa Energy Resources where he was involved in drilling horizontal wells in the Austin Chalk re-development program – new discoveries

Geosciences Manager for Headington Oil – new discoveries

He has co-authored:

First Break, Volume 35, May 2017: **Post-stack attribute-based fracture characterization: A case study from the Niobrara shale**
Geoffrey A. Dorn and Joseph P. Dominguez

IPA Convention & Exhibition, Jakarta, 2017: **Integrated Seismic Attributes Analysis of Naturally Fractured Basement Reservoir: An approach to define sweet spot for optimum well location and trajectory**
Fithra Harris Darmawan*, Tan Han Kee*, Azli B Abu Bakar*, Nur Hafizah Bt Mangsor-Mansor*, Trisakti Kurniawan*, Wahyudin B. Nasifi**, Lee Chung Shen***, Joe Dominguez***

AAPG EAGE MGS Conference Yangon, 2015: **Seismic Interpretation for Structure, Stratigraphy and Geomorphology: A Case Study**
Lee Chung Shen, CGG; Geoffrey A. Dorn, Ph.D., CGG; and Joseph P. Dominguez, CGG

Invited technical presentation in PIT HAGI 2014: **Advanced Interpretation Techniques for Structure, Stratigraphy and Geomorphology**; Joseph P. Dominguez and Geoffrey A. Dorn, Ph.D.

AAPG-ICE South Africa, 2018: **A practical application of data driven 3D automatic fault extraction for en echelon faults - A case study from Malay Basin**
Tengku Mohd Syazwan Tengku Hassan*, PETRONAS, Lee Chung Shen, Jimmy Ting, and Joseph P. Dominguez, CGG



US Exploration Manager for DEKALB Energy Company – new discoveries

He began his career with ARCO, serving as Manager of various exploration asset teams within the company's South Texas Division and South Alaska Region - new discoveries

Tuesday February 2, 2021

Agenda:

11:50 AM Zoom meeting opens

12:00 Noon Joel Starr will begin the meeting

12:15 Lecture begins

To receive a CEU certificate from this lecture please contact Bill Harbert

We would like to thank our 2020-2021 Corporate Sponsors. Please contact Joel Starr if you are interested in sponsoring the GSP

GOLD



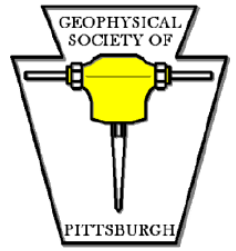
SILVER



BRONZE



Sponsorship Opportunities



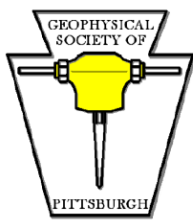
The Geophysical Society of Pittsburgh offers sponsorship opportunities. Our monthly meetings occur each first Tuesday of every month beginning in September through May.

Since our inception in 2010, meetings have been very well attended by industry professionals, averaging well over 50 attendees per meeting, peaking at more than 100 for our most highly attended meeting. Not only do our meetings offer exceptional technical presentations in the field of geophysics, but they provide an outstanding networking opportunity for oil and gas industry professionals working in the Appalachian basin.

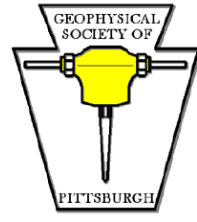
Your generous donations will help in the following ways: 1) helping to bring in distinguished lecturers; 2) offsetting part of the cost of the monthly meeting venue; and 3) enabling a Scholarship Program for future Geophysicists to be awarded each year to an outstanding student enrolled in a Geophysics program at one of our local universities.

Your company logo will be boldly displayed during the social hour of each meeting on the front screen, as well as on all meeting announcements and on our website. We are offering corporate sponsorship opportunities at several levels this year, as well as opportunities to sponsor our social hour during the meeting. Please note that a secure payment link is now available on our website for your added enrollment convenience.

Please click [HERE](#) to download more information, then return to this page to enroll as a sponsor.



Geophysical Society of Pittsburgh



The Geophysical Society of Pittsburgh successfully hosted the first Appalachian Basin Geophysical Symposium (ABGS), June 5th 2021 at the Noah's Event Center, Canonsburg PA. The event was a huge success with great speakers covering the latest innovations in geophysical research, technology and perspectives of the Appalachian Basin. We thank all our generous sponsors, speakers and organizers who made this event possible.

The positive feedback received from our community has prompted the GSP board to make the ABGS an annual event. With the addition of this yearly symposium, *it was determined that the monthly meetings should be reduced to a quarterly basis.*

The goals of this change are twofold:

1. Boost attendance numbers at our general meetings;
2. Focus Appalachian Basin centric talks for the ABGS.

Two of the quarterly meetings will occur in the fall and the other two during the spring. The ABGS will still be held around the beginning of June in tandem with the golf outing. This ensures that our members still have the opportunity to network on a semiregular basis.

We hope these changes help enhance the GSP's ability to promote the science of geophysics as well as promote the fellowship and cooperation among its membership. We look forward to seeing everyone at the first meeting this September.

Sincerely,

The GSP Board



2020-2021 GSP OFFICERS

President: Joel Starr

Vice President: Jianli Yang

Treasurer: Brian Lipinski

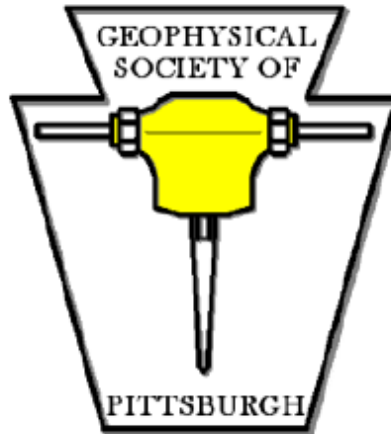
Secretary: Bill Harbert

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Your Dues and Sponsorship in Geophysical Society of Pittsburgh go toward:

- *Outstanding Monthly Lecture Series*
- *SEG Distinguished Lecturers*
- *Annual Scholarship Awards*
- *Annual Golf Outing*
- *Short Courses*

*Please contact Joel Starr, Jianli Yang
, or Brian Lipinski for Sponsorship Opportunities.*

