ADVANCED BOREHOLE GEOPHYSICS

for Water Resources/Water Supply Applications 2-DAY WORKSHOP

Nevada Water Resources Association

Presented by John Sciacca and David Berger

Borehole geophysics is, and will continue to be, a highly effective tool for water resource/water supply applications and useful in environmental investigations, such as to developing or refining conceptual hydrogeologic models. Depending on the objectives of logging program, either qualitative or quantitative interpretation may be utilized. Commonly, geophysical logs are run and then given only a cursory examination before being filed away with the geologic and driller logs. This is a lost opportunity to carefully analyze and assess aquifer properties. If the investment is made to run a suite of geophysical logs, then an effort should be made to obtain the maximum value from the logs through quantitative or more advanced interpretation.

Greater technical expertise is necessary for quantitative analysis of borehole geophysical data. This workshop will cover quantitative log analysis techniques to help evaluate porosity, hydraulic conductivity, and transmissivity of the formation. The workshop builds upon last year's introductory workshop and looks at more advanced geophysical logs or in more detail at logs introduced in the previous workshop and their interpretation. Some examples include the following:

- Quantitative derivation of porosity from logs
- Relation or correlation of hydraulic conductivity to formation factor
- More on borehole magnetic resonance (BMR) logs
- Lithoporosity plots and carbonate aquifer evaluation
- Interpreting cement bond logs (CBL)
- Interpreting spinner flowmeter logs
- Interpretation of lithology including lithologies in Nevada
- Further correlation including between water wells

Additionally, the workshop can help support work with aquifer storage and recovery projects, de-watering wells and deep injection wells. The information from these logs and advanced interpretation can provide fine-scale information on aquifer composition and properties that may be of great value for hydrogeologically complex projects. This includes using logs in evaluating sequence stratigraphy. Additional material and new exercises will be provided to expand and build upon your knowledge

A copy of the workshop slides will be provided on a thumb drive for future use and reference. Attendees may bring their own geophysical logs, to discuss them with the instructors and workshop attendees.

To register, please complete this form and send it with payment to: NWRA, P.O. Box 8064, Reno, NV 89507. Please type or print one registration form per attendee. Make checks payable to Nevada Water Resources Association.

Name _____ Suffix/Degree _____

Title _____

Organization _____

Address _____

City _____ State _____ Zip _____

( ) _____

Phone with area code

Email _____

Attending for CEU / PDH?
☐ Yes ☐ No
If yes, please provide type of credit & license #
_____

Cancellation Policy: All cancellations must be received in writing and sent to NWRA via fax to 775-473-5473, mailed to P.O. Box 8064, Reno, NV 89507, or e-mailed to admin@nwra.org. Cancellations received within 7 days of the start of the event will not be refunded; however, substitutions are welcome. All other cancellation requests will receive a refund minus a 25% administrative fee. If you have purchased the registration with a credit card, the convenience fee is non-refundable.

For more information, please call Tina Triplett at 775-473-5473

DATE

Wednesday, June 12
& Thursday, June 13, 2024

TIME

8:00 a.m. – 5:00 p.m.
(Lunch is provided)

LOCATION

5650 Riggins Court
Reno, NV 89502

REGISTRATION FEES

Register by May 24, 2024
☐ $200 NWRA Members
☐ $250 non-members

Register after May 24, 2024
☐ $250 NWRA Members
☐ $300 non-members

Single Day $150
NWRA members or non-members
☐ June 12 OR ☐ June 13

☐ Students $25

DIETARY REQUEST

To be selected by all attendees
Do you prefer Vegetarian?
☐ Yes ☐ No