



Johnson Screens

A block of standard rooms have been reserved for \$239.00 a night at **One Ocean Beach Resort**.

For reservations, please contact One Ocean Beach Resort and Spa directly at: **(904) 249-7402**.

REGISTRATION CHECKLIST

- Space is limited to 50 students
- Register before March 1, 2024:
\$1000 per student
- Register after March 1, 2024:
\$1200 per student

For any additional information on the Groundwater & Wells Design Class, contact

Thom Hanna
Hydrogeologist
Johnson Screens
Phone: 303-570-5452
thom.hanna@johnsonscreens.com

A brand of
Aqseptence Group

Purchase online tickets at:
<https://bit.ly/JSGroundWaterClass2024>
www.johnsonscreens.com

Or Scan QR Code Below

Join Johnson Screens in sunny
Atlantic Beach, FL!

One Ocean Beach Resort and Spa is located on the beach just 5 minutes from Jacksonville Beach Pier.



Scan Here to Register

Cindy Schmidt
Johnson Screens
1950 Old Hwy 8 NW
New Brighton, MN 55112
Phone: 800-833-9473
Email: marketing.us@johnsonscreens.com

JOHNSON SCREENS® 2024 GROUNDWATER & WELLS DESIGN CLASS

Designing, drilling and maintaining a high capacity water supply well from cradle to grave – a three day workshop for water well professionals who design, construct, operate, own and maintain high capacity water wells.

March 26-28, 2024
Atlantic Beach, FL
One Ocean Beach Resort
1 Ocean Boulevard
Atlantic Beach, FL 32233
904-249-7402

FEATURED SPEAKERS

Thom Hanna, PG
Hydrogeologist
Johnson Screens

Michael J. Schnieders, PG
President/Hydrogeologist
Water Systems Engineering

Robert Pritchard
President/Electrical Engineer
Servtech

Dr. Robert Sterrett
Hydrogeologist RJS
Consulting

Mark Sharenbroich
Engineer
Board Advisor
Hydro Resources

Fred Rothauge
Licensed Driller/
Drilling Fluids Engineer
Hydro Resources

2024 GROUNDWATER & WELLS DESIGN CLASS TENTATIVE AGENDA

Day ONE -

Well Exploration, Drilling and Well Screens

8:00 a.m. - 5:00 p.m.

Introduction

Expectations and introductions, Present problem (designing 16 in., 1000 ft well from cradle to grave)

Part 1

Subsurface Exploration

Types of drilling, geologic sample collection, sample description, collection of water samples

Part 2

Borehole Geophysics

Borehole logs (SP, long and short normal, gamma) production logs (spinner logs, micro flow), completion logs (cement bond)

Part 3

Well Drilling Methods

Cable tool, reverse, (dual tube, inductor), direct rotary, tooling, space requirements, stabilizers and collars tooling

Part 4

Well Fracking

Problem

Select completion interval, depth, water chemistry data from pilot hole, geophysical logs, selection of drilling method

General Well Design

Single string, telescoping and general design considerations

Part 5

Drilling Fluids

Types of drilling fluids for different drill systems and aquifers, benefits of engineered mud program, maintenance implications, LCM and flowing wells

Part 6

Introduction to Well Design

Design considerations and completion type overview

Part 7

Selection of Filter Pack and Slot

Design of screens and filter pack

Part 8

Screening Devices

Types, strengths and when to use

Problem

Intro to well design program, filter pack and slot selection, screen characteristics, and drilling fluids

Day TWO -

Well and Pump Design

8:00 a.m. - 5:00 p.m.

Part 9

Production Well Design

General design considerations, well materials, tolerances, manufacturing, types of fittings, strengths, lengths and diameters of casings

Part 10

Material Selection and Corrosion

Selection of materials and types of corrosion common in water wells

Part 11

Well Construction

Tooling, material handling, grouting

Problem - Well Design

Part 12

Well Development

Types of development tools, time of development

Part 13

Well Efficiency and Well Hydraulics

Determination of well efficiency from pumping tests

Part 14

Pumps (Sizing & Materials)

Selection of pumps, motors and motor controls

Problem

Pump selection, well efficiency testing, well design

Day THREE -

Well Ownership and Maintenance

8:00 a.m. - 5:00 p.m.

Part 15

Operational Stage of a Well

Overview: How to determine well aging and time to rehabilitate

Part 16

Chemical Changes in Well Systems

Key parameters to monitor and what those changes mean

Part 17

Microbiological Changes in Well Systems

Microbiology of a well system, parameters to monitor

Part 18

Wire to Water Efficiency

Monitoring pump and motor efficiency

Part 19

Chemical Selection and Application for Well Cleaning

Types and volumes of chemistries used to clean a well

Problem

Determination of operational age of the well, select chemistry and creating well cleaning plan

Part 20

Video Inspection

Post construction and structural aging

Part 21

Equipment, Handling of Chemicals and Disposal

Methods of cleaning and placement of well cleaning chemistry

Part 22

Coliforms – Control and Disinfection

Proper methods for well disinfection

Part 23

Well Economic Analysis