

(((ECHOMETER))) 2023 SEMINARS

ECHOMETER TECHNOLOGY & FUNDAMENTALS OF WELL ANALYSIS

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| MARCH 8-9 | ODESSA, TX |
| MARCH 15-16 | CARLSBAD, NM |
| APRIL 5-6 | SAN ANTONIO, TX |
| MAY 17-18 | BAKERSFIELD, CA |
| JUNE 7-8 | RED DEER, AB, CANADA |
| JUNE 13-14 | ODESSA, TX |
| JULY 12-13 | VERNAL, UT |
| JULY 19-20 | HOUSTON, TX |
| JULY 26-27 | CASPER, WY |
| AUGUST 1-2 | TULSA, OK |
| AUGUST 16-17 | WILLISTON, ND |
| AUGUST 24-25 | DURANGO, CO |
| SEPTEMBER 27-28 | CANONSBURG, PA |
| NOVEMBER 15-16 | ODESSA, TX |

Objective: Use of Echometer Well Analyzer and Echometer Wireless Equipment with TAM software to obtain fluid level and dynamometer measurements for troubleshooting producing wells.

Who should attend: Field technicians, pumpers, production operators, tech supervisors currently involved in well troubleshooting.

Echometer Company offers two-day seminars on the topics listed below. The seminars are offered free of charge.

Day One:

- Basics of fluid level acquisition and obtaining quality data for analysis with Echometer Well Analyzer, Echometer Wireless Equipment, and Echometer Model M.
- Three methods of fluid level analysis (Automatic Collar Count, Acoustic Velocity, Downhole Marker)
- Gaseous liquid columns
- Calculation of bottomhole pressures from casing pressure and acoustic liquid level depth measurements.
- The effects of static and producing bottomhole pressures on well production.
- Problem wells and common production methods are discussed.
- Downhole Gas Separators
- Motor Power/Current analysis

Day Two:

- Basics of Dynamometer measurements using a Polished Rod Transducer or Horseshoe Load Cell.
- Dynamometer data acquisition and analysis.
- Using fluid level and dynamometer data to troubleshoot wells.
- QRod
- Pressure Transient Testing (if requested)
- Plunger Tracking (if requested)
- Model H Instrument (if requested)
- Model M Strip Chart Recorder (if requested)

The computerized Echometer Well Analyzer and the Wireless Equipment are superior digital instruments which give a complete well analysis.

(((ECHOMETER))) 2023 SEMINARS

INTRODUCTORY WELL ANALYZER WORKSHOPS

FEBRUARY 23-24 **WICHITA FALLS, TX**
JUNE 22-23 **WICHITA FALLS, TX**
OCTOBER 26-27 **WICHITA FALLS, TX**

Objective: Focus on set-up of the Wired Well Analyzer and Wireless Equipment, as well as basics of TAM software for well file setup, data acquisition, liquid level, dynamometer and electrical power measurements.

Who should attend: New users of Echometer Equipment

This Workshop will focus on set-up, data acquisition, and TAM software use for the Well Analyzer and Wireless System liquid level and dynamometer acquisition and analysis.

The workshop covers:

- Set-up, operation and maintenance of the Well Analyzer and Wireless Equipment
- Acoustic fluid level data acquisition and quality control
- Calculation of accurate fluid levels and producing and static bottomhole pressures
- Acquisition and quality control of dynamometer data
- Basic data analyses are also discussed and applied to detecting the most common abnormal well operation.

During the workshop, the participants will be expected to participate in hands-on exercises in both the classroom and the field to practice acquisition of the data.

Echometer Company requires that during field practice and demonstration, each participant follow his/her company's safety rules and regulations and use their recommended safety equipment. It is recommended that each person bring the Well Analyzer laptop to use during the workshop.

TOTAL ASSET MONITOR 5-DAY SEMINAR

FEB. 27 – MAR. 3 **WICHITA FALLS, TX**
JUNE 26-30 **WICHITA FALLS, TX**
OCT. 30 – NOV. 3 **WICHITA FALLS, TX**

Objective: Focus on applications of the Echometer Wired Well Analyzer and Wireless System, and use of the TAM software for analysis, troubleshooting and optimization of well performance.

Who should attend: Field technicians, lease operators, production supervisors with some experience using the Wired Well Analyzer or Wireless System and TAM software.

Echometer Company is offering a five-day Well Analyzer seminar to be held in Wichita Falls. The seminar will cover the efficient production of oil wells and the use of the Well Analyzer and Wireless System to obtain a complete analysis.

The seminar will cover:

- Single shot acoustic analysis
- Dynamometer data acquisition and analysis
- Motor power/current data acquisition and analysis
- Breakout Sessions on:
 - Remote Access Monitor and Pressure Transient
 - Plunger Lift, Gas Wells, Gas-Lift Wells
 - Motor Power and Torque Analysis
 - Hands on equipment demonstrations in the field

(((ECHOMETER))) 2023 SEMINARS

ADVANCED DYNAMOMETER, TORQUE & POWER SEMINARS

MARCH 21-23 WICHITA FALLS, TX

SEPTEMBER 19-21 WICHITA FALLS, TX

Objective: Advanced class that focus on the analysis of Sucker Rod Lift Dynamometer, Counterbalance, and Power data collected using the TAM software and Echometer Well Analyzer and Wireless Systems. Seminar consists of short formal presentations followed by hands-on analysis of actual example data.

Who should attend: TAM users who have attended a previous Echometer seminar and are interested in more details in the analysis of Sucker Rod Lift data.

This advanced 3-day seminar offered by Echometer provides guidance on using Dynamometer, Counterbalance, and Power data collected using the Echometer Well Analyzer and also the Echometer Wireless System. Analysis of the data will allow the participant to identify and solve sucker rod pumping problems.

The general format of the seminar will be a collection of one-hour mini-topics. Each mini-topic will consist of a 30-minute presentation followed by the class participants using TAM software installed on their individual laptops to investigate the presentation's highlighted topic. Knowledge gained from attending this seminar will increase the participant's skill in troubleshooting sucker rod lifted wells.

After attending this seminar, the participant should be able to identify well problems and recommend corrective actions. Application of these analysis techniques to sucker rod lifted wells will increase profitability due to decreased repair cost and increased production.

PLUNGER LIFT SEMINAR

MARCH 28-30 WICHITA FALLS, TX

OCTOBER 3-5 WICHITA FALLS, TX

Objective: Focus on plunger lift analysis methods and troubleshooting using Echometer TAM software.

Who should attend: Production supervisors, field technicians, operators etc. concerned with analysis and optimization of plunger lift installations and gas well deliquification operations.

Workshop on data acquisition and troubleshooting Plunger Lift Wells. Techniques and hands on analysis is used to analyze and interpret collected field data. The topics covered in this seminar are Gas Well Deliquification, Identifying Liquid Loaded Gas Wells, and Analyzing & Trouble Shooting Plunger Lifted wells.

Please contact kaili@echometer.com to register for a seminar. If you have any questions regarding which seminar to attend, we'll be happy to help you get into the right class.

We look forward to seeing you!