



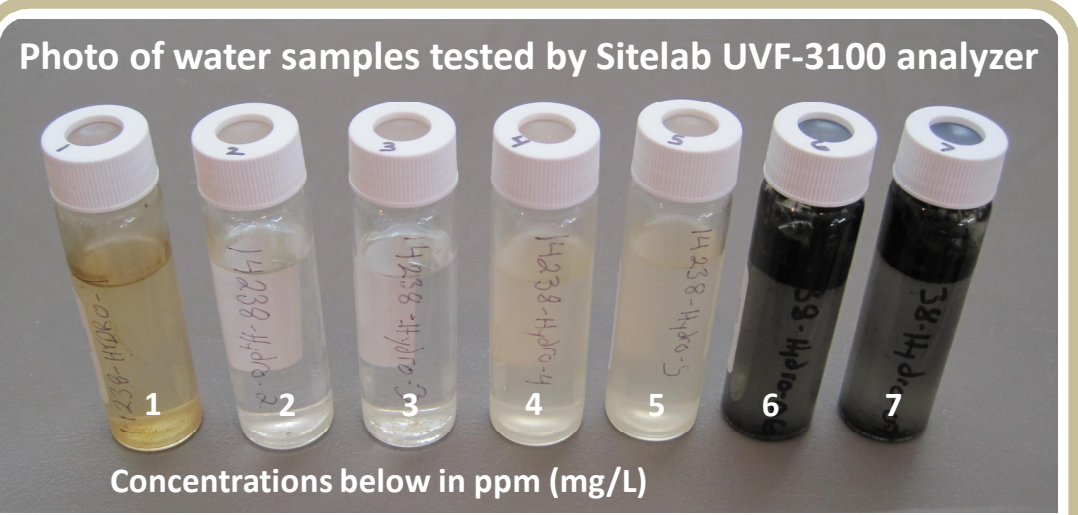
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Crude Oil in Water

OIL FORENSIC APPLICATIONS

Produced Water Treatment Site: A pilot study was performed to test water samples contaminated with produced water from several oil well production sites in Wyoming. The customer provides mobile water treatment systems that enable oil and gas companies to recycle and reuse flow back water more efficiently. The samples were tested for their gasoline range and extended diesel/oil range concentrations. Ratios exhibited in the results provides helpful information about the type of oil being treated at each site.



Concentrations below in ppm (mg/L)

Oil ID #	TEST 1: EDRO C10-C36 Range Hydrocarbons	TEST 2: GRO C6-C10 Range Hydrocarbons	TPH Ratios Exhibited: Test 1÷Test 2
1	1,646	70	24X
2	110	15	7X
3	48	6	8X
4	74	20	4X
5	88	19	5X
6	38,750	4,000	10X
7	18,400	2,000	9X

Higher ratios: Oil has lower proportions of GRO = Heavier Crude

Lower ratios: Oil has higher proportions of GRO = Lighter Crude

Quick Reference Guide
for Sitelab UVF-3100 Testing Oil in Water/Soil with HEXANE

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Sample Preparation & Analysis...

Testing Water?
Shake sample and pour out 11 mL of water into test tube. Add to extraction jar.

Testing Soil?
Using a scale and spatula weigh 10 grams of soil into extraction jar (4.7-5.0 gram).

Products Used...
UVF-3100 Analyzer & Tools: Product No. UVF-3100A or B
20 Sample Extraction Kits: Product No. EX10010-20

Calibrate Instrument...

Quality Controls...

- Test procedures and equipment are easy to use.
- Solvent is used to extract water samples using test kits available.
- Results take less than 5 minutes.

GRO: CAL-025H
EDRO: CAL-042H

GRO • VPH Range
Extended Diesel & Oil Range

C6 C10 C36

Total Petroleum Hydrocarbons

Sitelab calibration kits are available in hexane solvent and are used for accurate oil in water analysis. The UVF analyzer contains optical filters sensitive to the same ranges of hydrocarbons reported by the certified laboratories using gas chromatography. Sitelab's GRO and EDRO results correlate well to EPA Method 8015 and other TPH-GC methods.