Sand Content Kit

Instruction manual

Sand Content

The Mudtest Sand Content Kit is used to determine the volume percent of sand in drilling fluids. It consists of a sieve, a funnel, a graduated tube, and a wash bottle packed in a small carrying case.

Declaration of Conformity

The manufacturer

MUDTEST Sp. z o.o.
Chełmońskiego 77, 32-500 Chrzanów, Poland

hereby declares that the following product conforms to the provisions below mentioned standards, including any amendments in force at the time of declaration:

Name of product	**Sand Content Kit**
Drawing number	8040.00.00000

☒ **API RP 13B-1 Field Testing: Water-based Drilling Fluids**
and identical
ISO 10414-1 Petroleum and natural gas industries — Field testing of drilling fluids — Part 1: Water-based fluids

☒ **API RP 13B-2 Field Testing: Oil-based Drilling Fluids**
and identical
ISO 10414-2 Petroleum and natural gas industries — Field testing of drilling fluids — Part 2: Oil-based fluids

SEBASTIAN LEUTERT
QUALITY ASSURANCE
INSPECTED BY MUDTEST

Adendorf, 18.04.2023
Place and date

Management representative for declarations of conformity

Description

Excess sand in the drilling fluid can cause a thick filter cake to form on the borehole wall or settle downhole once circulation is stopped. Settled sand can cause problems when operating drilling tools or setting casing. High levels of sand can also cause excessive abrasion of pump parts and pipe connections.

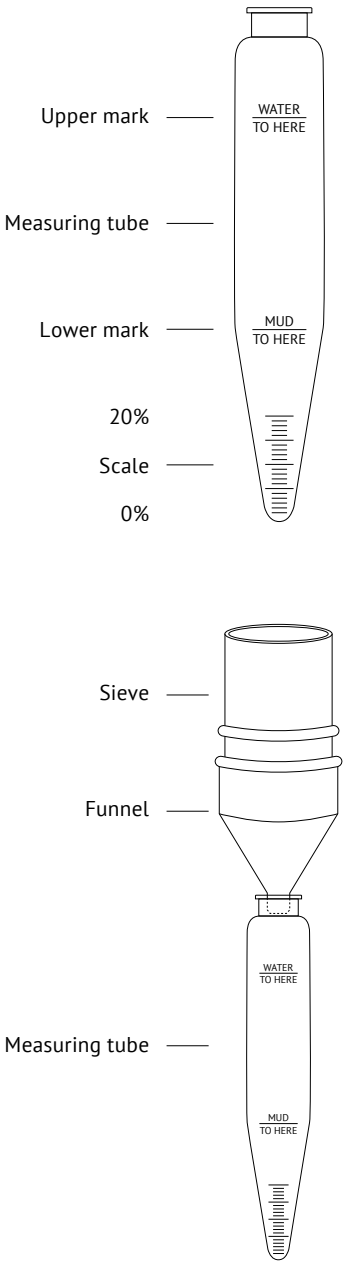
According to the API, sand-sized particles larger than 74 µm are defined as sand. Sand volume, including intergranular voids, is normally measured and expressed as a percentage by volume. Sieve analysis using a sand content kit are the preferred method for determining sand content because the kit is easy to use and the results are reliable.

The Sand Content Kit is used to determine the volume percent of sand in drilling fluids. The Sand Content Kit consists of a sieve of 75 µm, a plastic funnel, a graduated glass tube, and a wash bottle all packed in a small carrying case.

The Mudtest Sand Content Kit complies with the requirements of API RP 13B-1 and API 13B-2 as well as the corresponding international standard ISO 10414-1 and ISO 10414-2 for field testing of drilling fluids.

Technical Specifications

Sieve	:	74 µm (200 mesh) and 63.5 mm (2.5 in) in diameter
Funnel	:	Fits to sieve
Glass measuring tube	:	Marked for the volume of drilling fluid to be added and graduated from 0% to 20%
Boxed dimensions	:	300 x 167 x 150 mm (11.81” x 6.57” x 5.91”)
Boxed weight	:	0.6 kg (1.32 lbs)



Operation

1. Fill the measuring tube to the indicated mark with mud. Use the wash bottle to add water to the upper mark. Close the mouth of the tube and shake vigorously.

2. Pour the mixture onto the clean sieve. Discard the liquid passing through the screen.

3. Add more fluid from the wash bottle to the tube, shake, and again pour onto the sieve. Repeat until all the drilling fluid has been washed out of the tube.

4. Flush the screen with fluid from the wash bottle to free the sand remaining on the sieve of any remaining mud.

5. Fit the funnel upside down over the top of the sieve. Slowly invert the assembly and insert the tip of the funnel into the mouth of the glass measuring tube.

6. Wash the sand into the tube by spraying a fine spray of fluid from the water bottle through the sieve (tapping on the side of the sieve with a spatula handle may facilitate the process). Allow the sand to settle.

7. Using the scale on the graduated tube, read the volume percent of sand. Report this along with the source of the mud sample (above shaker, suction, pit, etc.). Coarse solids other than sand (lost circulation material, coarse barite, coarse lignite, etc.) may be retained on the screen. The presence of such solids should also be noted.

8. Thoroughly wash any sand or drilling fluid from the screen, funnel, and tube after each use. Dry all equipment. Keep the parts in the transport box.

Order Information

Sand content kit	**8040.00.00000**

Small box	1000.10.00001
Wash bottle, 500 ml	8040.00.00002
Graduated Tube, Glass 0 – 20%	8040.00.00003
Sieve, 200 Mesh (75 µm), 2,5" Diameter	8040.00.00005
Funnel	8040.00.00004