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PALL

PCM500 FLUID CLEANLINESS MONITOR SERIES

Item code: PCM500

The PCM500 Fluid Cleanliness Monitor is a portable diagnostic monitoring device that provides a measurement of system fluid cleanliness. The new improved PCM500 uses proven mesh blockage technology to report accurate, reliable, 3 part ISO 4406 cleanliness codes for most types of fluids, in many types of the environment.

The PCM500 offers new modern user design interface, improved functionality, is simple and intuitive to use, and quick to provide accurate results to ensure rapid actions can be taken to avoid critical failures.

YOU CAN:

- Monitor contamination levels in mineral, synthetic, or water based fluids. Results are unaffected by the presence of water, air or dark fluids.
- Get accurate, 3 part* ISO 4406 cleanliness code results in under 6 minutes and to quickly take preventative action.
- Upload real-time results directly to mobile devices for analysis and action
- 'Pass off" cleanliness of new builds quickly and confidently.
- Protect your systems from catastrophic failure by detecting abnormal fluid cleanliness conditions quickly.
- The PCM500 can be permantently installed to monitor critical applications (including component test facilities) or used as a portable device for routine condition monitoring or various fluid systems.

FEATURES:

- Proven mesh blockage technology provides accurate 3-part* ISO 4406, AS 4059 Table 1 (NAS 1638) or AS 4059 Table 2 cleanliness codes.
- Self cleaning procedure between each test ensures optimum accuracy of results.
- Compact, robust, fully self contained portable design (fluid sampling pump included).
- Simple to use, colour touch screen interface.
- Long battery life for extended operation in remote locations.
- Measurement of fluid cleanliness, temperature, viscosity, and optional water content.
- 3 part code measured at 4 um, 6 um, 14 um (c) per ISO 16889.

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OPERATION:

- The colour LCD touch screen allows simple menu driven input of sample indentification, monitor configuration and data output.
- The HD screen displays real time data and test results which are automatically stored for subsequent trending and evaluation. An optional bluetooth connected printer allows the operator to produce a hard copy of the test results if required.
- All ancillary components for high and low pressure on-line sample monitoring are contained within the unit, with sufficient internal power to complete up to 35 tests between charges. (AC power can be used if preffered).
- For further proteciton and ease of transport, the PCM500 is supplied in a robust flight case.

SPECIFICATIONS:

- Power Supply: 90-260 VAC or integral.
  12 VDC Lithium ion battery.
- Battery Life: Typically 35 samples.
- Temperature Range: 10 degrees celsius to 80 degrees celsius (50F to 176F) dependent on fluid type.
- Compatibility: Water glycols, aquesous solutions.
  Petroleum and synthetic oils (hydraulic lubricating, dielectric, etc.), fuels, industrial phosphate esters.
- Seals: Fluorocarbon
- Operating Viscosity: 1.5 to 450 cST (30 to 2,200 SUS)
- Pressure: 0 to 315 bar (4570 psi) max
- Monitoring Range: ISO 4406: <11/9/7 to 23/21/17
  SAE AS 4059 Table 1
  Class 1 to 12 (derived from NAS 1638)
  SAE AS 4059 Table 2
  > 4um 1A to 12A, >6um 1B to 12B > 14um to 1C to 12C
- Water in Oil % RH: 2% at 5 to 95% RH (PCM500W)
- Accuracy: 1/2 ISO 4406 Code
- Communication Ports: 3 x USB's (Data Acquisition, PC Setup, Printer), Ethernet and RS232C (PLC Control)
- Enclosure: IP 65 (NEMA 4).
- Weight: 11kg (24 lb).
- Dimensions: 400 x 260 x 250 mm (15.8 x 10.2 x 10 inches).

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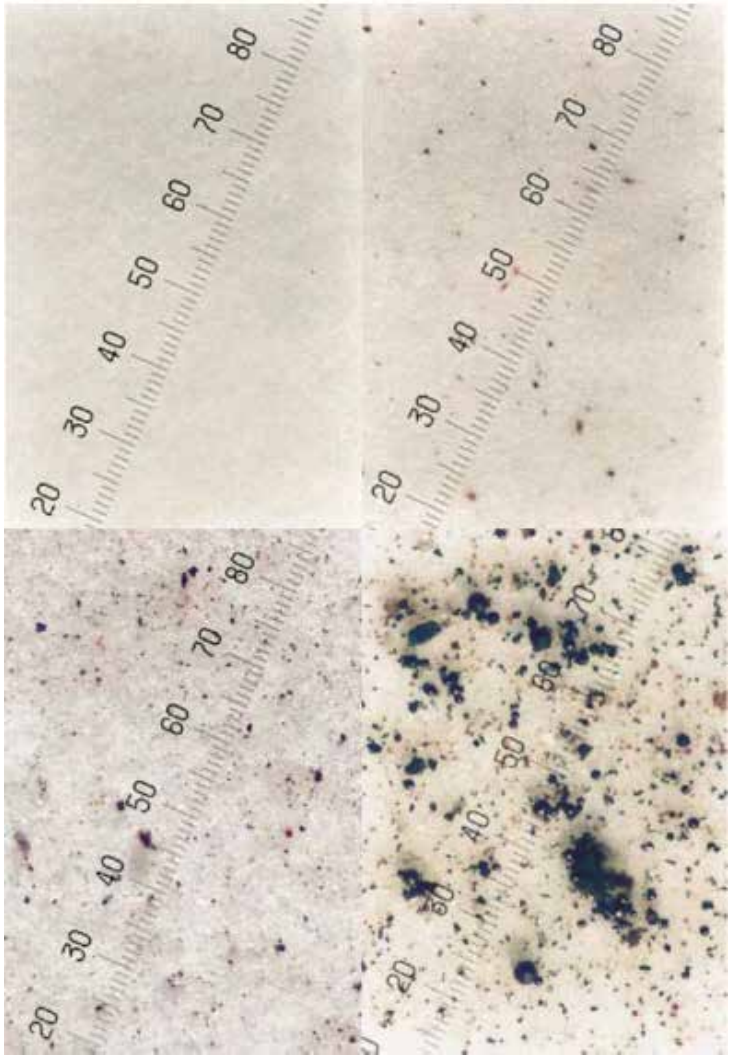
ORDERING INFO:

Please select from the following part number options:

Without Water Sensor	1	2	With Water Sensor	1	2
PCM500	**M**	**A**	PCM500W	**M**	**A**
PCM500	**M**	**B**	PCM500W	**M**	**B**
PCM500	**M**	**D**	PCM500W	**M**	**D**
PCM500	**U**	**B**	PCM500W	**U**	**B**
PCM500	**U**	**C**	PCM500W	**U**	**C**

References **1** & **2** refer to tables below

Code	Description
1	**Fitting Type**
M	1/4" BSPP Female Svivel Fitting to metric test point
U	1/4" NPT Fitting and end cap
2	**Power Lead**
A	UK Power Lead
B	European Power Lead
C	USA Power Lead
D	Australian Power Lead



FLUID CLEANLINESS REFERENCE IMAGES

This Fluid Cleanliness Reference is a valuable tool for performing system fluid analysis. Combined with the Pall Patch Test Kit, this reference allows you to estimate the amount of contamination in a hydraulic fluid or lubrication oil.

Although it is not possible to determine exact particle counts using these reference images, it is possible for trained technicians to view these comparisons of actual patches and generally class the levels of contamination in a fluid sample.

The examples in this Fluid Cleanliness Reference were prepared from actual field samples and laboratory equipment similar to the Pall Portable Patch Test Kit.

ISO 4406 codes, NAS 1638 classes and AS4059E classes are given based on particle counts performed on fluid samples for each reference image.

Images of the 1.2µm membranes are at 100x magnification and 100mL fluid volume filtered.

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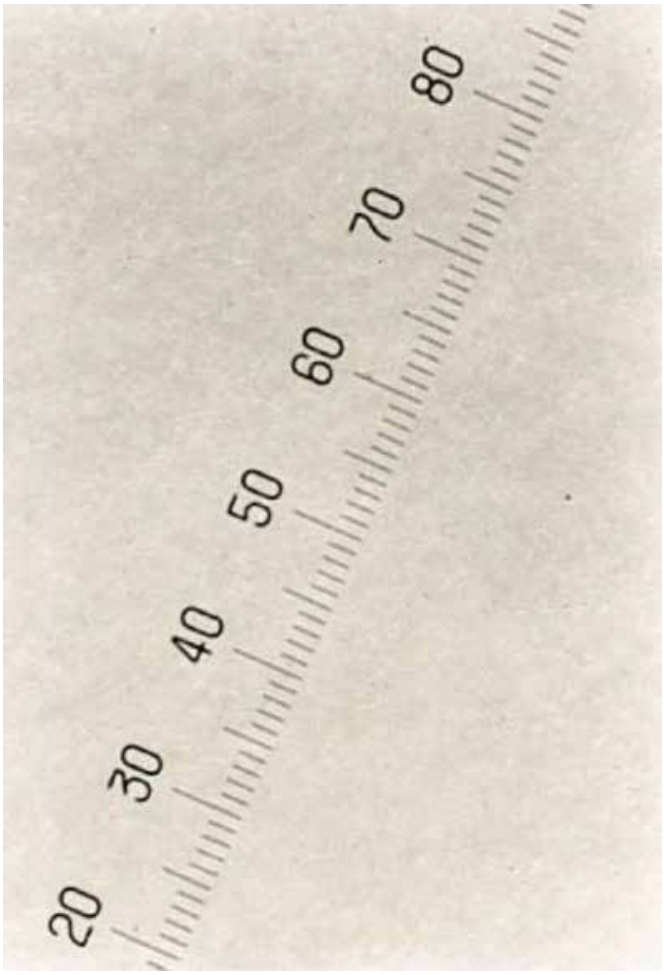
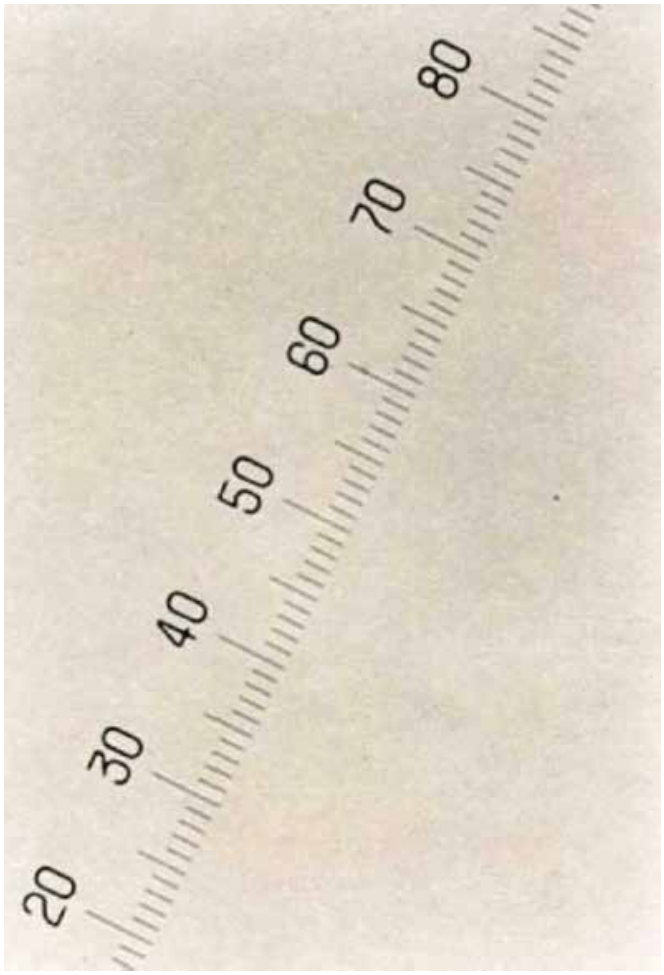
FLUID CLEANLINESS
REFERENCE IMAGES

ISO4406 code 12/10/07
NAS1638 class 1 & AS4059E Table 1 class 1
AS4059E Table 2 class 1B/1C



ISO4406 code 13/11/08
NAS1638 class 2 & AS4059E Table 1 class 2
AS4059E Table 2 class 2B/2C



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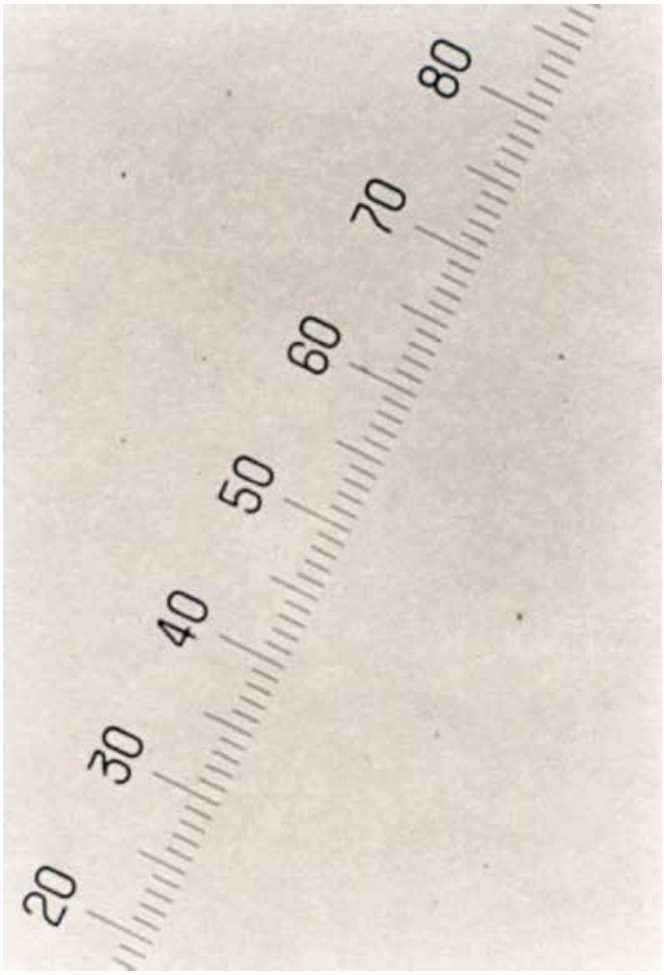
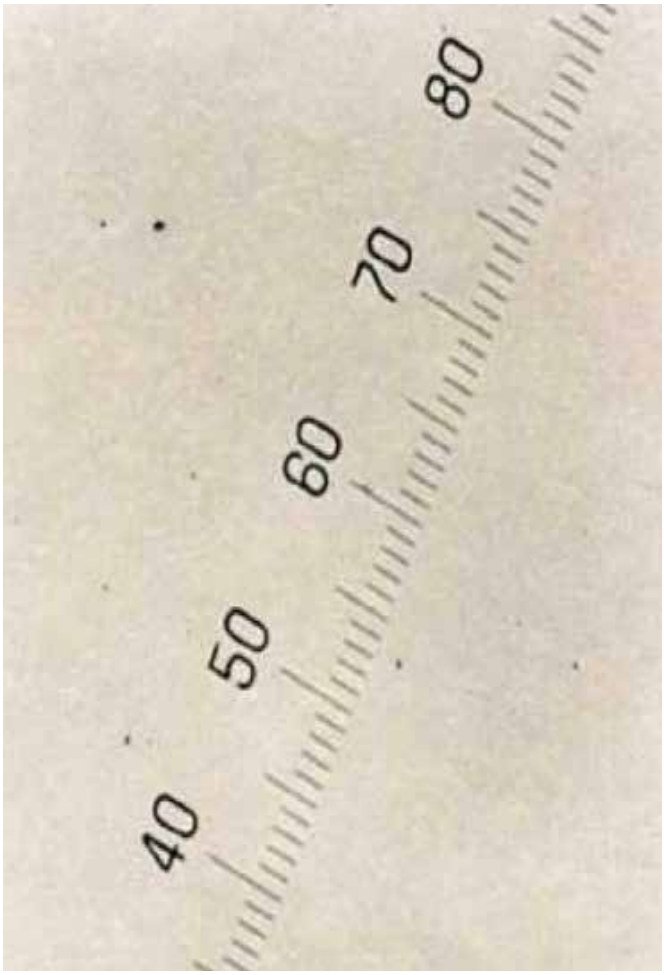
FLUID CLEANLINESS
REFERENCE IMAGES

ISO4406 code 14/12/09
NAS1638 class 3 & AS4059E Table 1 class 3
AS4059E Table 2 class 3B/3C



ISO4406 code 15/13/10
NAS1638 class 4 & AS4059E Table 1 class 4
AS4059E Table 2 class 4B/4C



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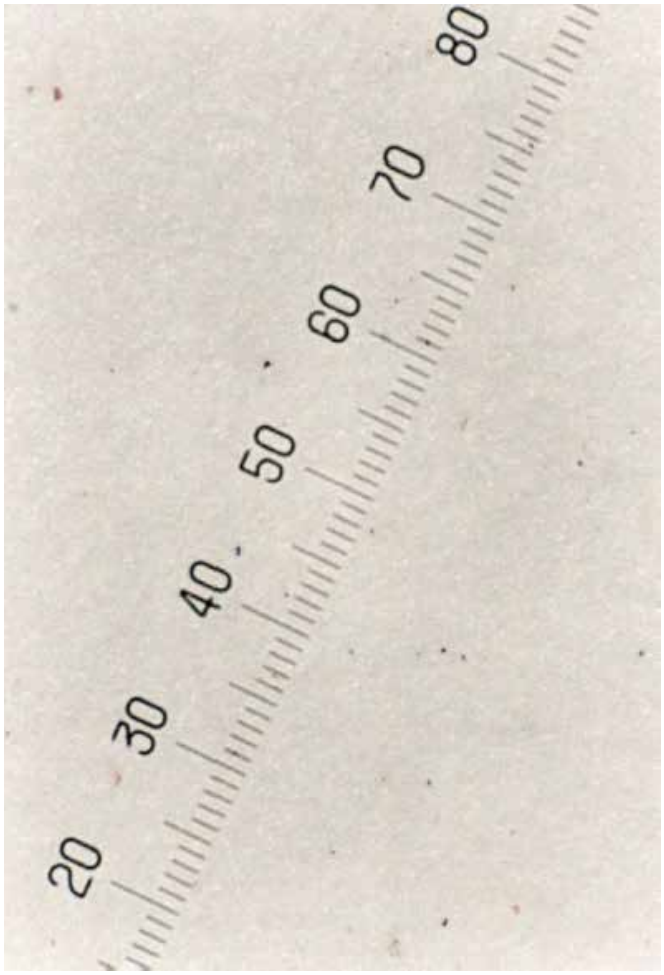
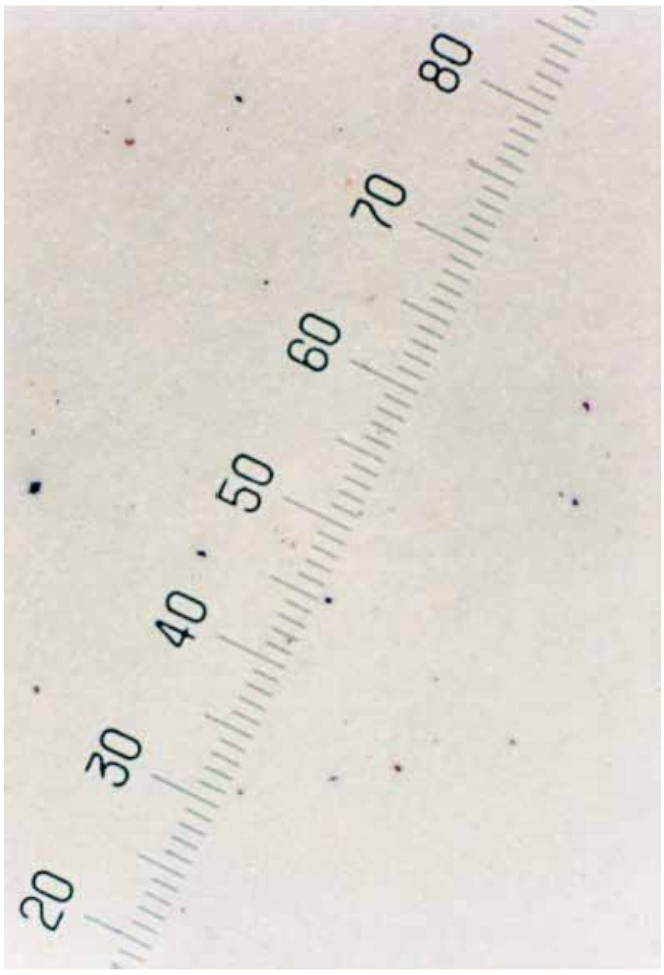
FLUID CLEANLINESS
REFERENCE IMAGES

ISO4406 code 16/14/11
NAS1638 class 5 & AS4059E Table 1 class 5
AS4059E Table 2 class 5B/5C



ISO4406 code 17/15/12
NAS1638 class 6 & AS4059E Table 1 class 6
AS4059E Table 2 class 6B/6C



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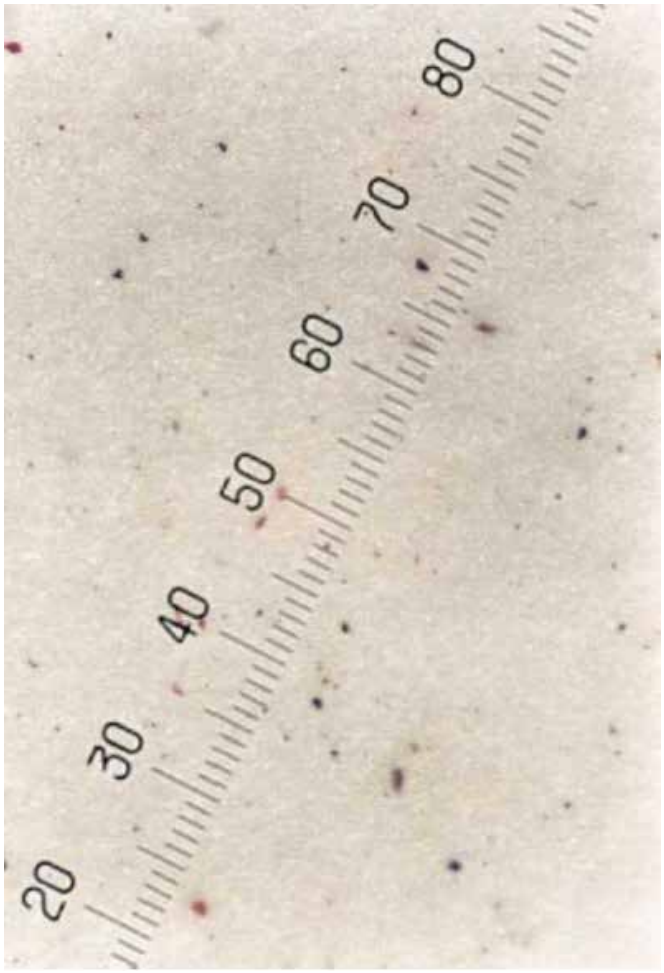
FLUID CLEANLINESS
REFERENCE IMAGES

ISO44Ü6 code 18/16/13
NAS1638 class 7 & AS4059E Table 1 class 7
AS4Ü59E Table 2 class 7B/7C



ISO4406 code 19/17/14
NAS1638 class 8 & AS4059E Table 1 class 8
AS4059E Table 2 class 8B/8C

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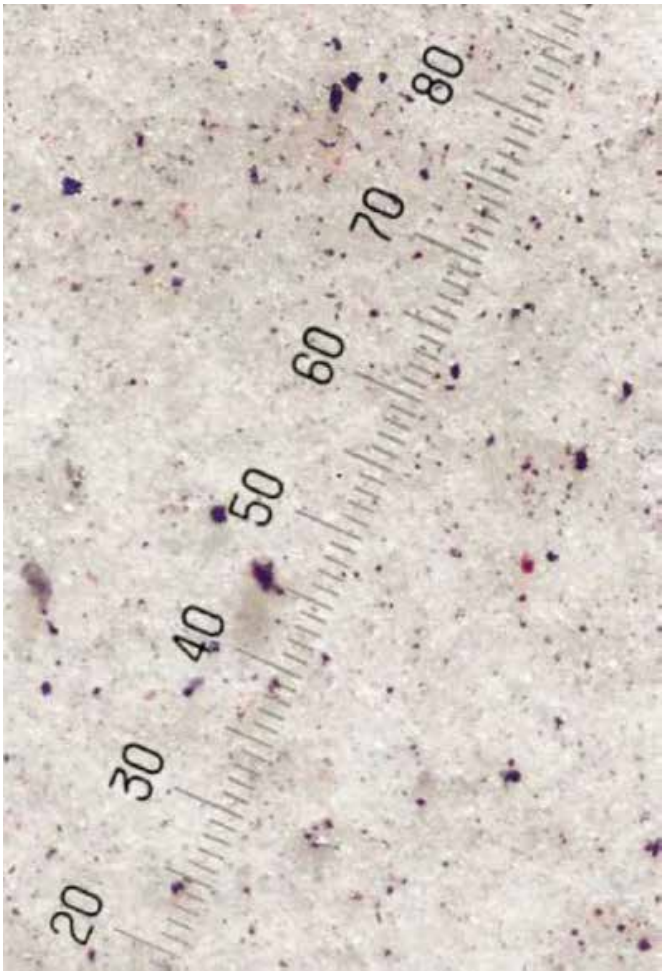
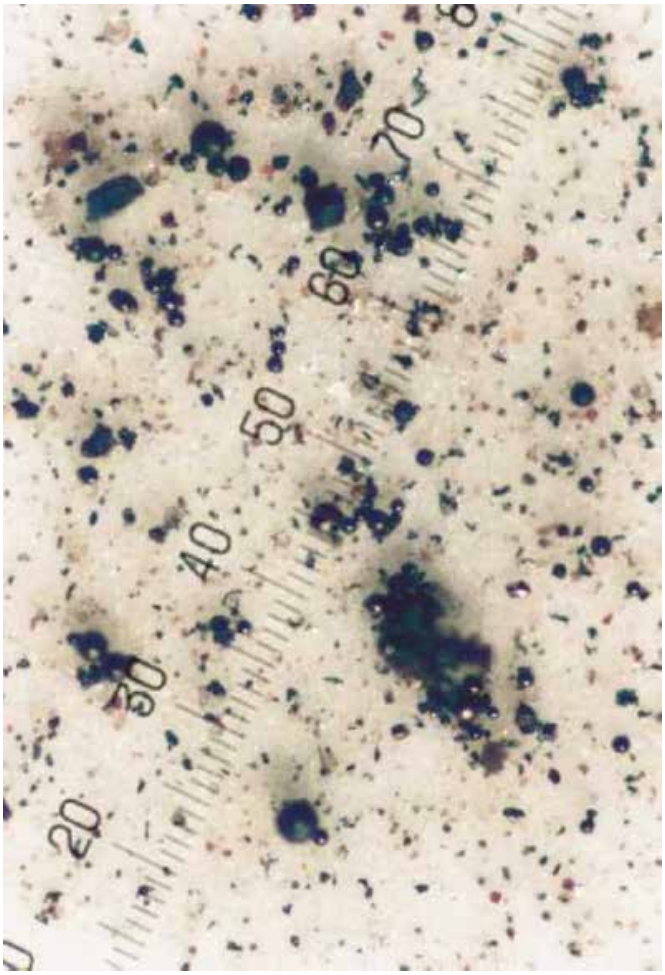
FLUID CLEANLINESS
REFERENCE IMAGES

ISO4406 code 21/18/15
NAS1638 class 9 & AS4059E Table 1 class 9
AS4059E Table 2 class 9B/9C



ISO4406 code 22/19/15
NAS1638 class 10 & AS4059E Table 1 class 10
AS4059E Table 2 class 10B/10C



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