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## Application Note (160720-1)

### Sample Preparation for Drill Cuttings drilled using Oil Based Mud (OBM) Cleaning Procedure

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- Pick out any obvious contaminants and foreign material
- Clean with Dawn soap using running water.
- Leave to stand in open air on a bench top in the Laboratory for 2 to 3 days to allow it to dry.
- Grind to 60 mesh size ("powder") state.
  - **Note:** it is necessary to grind the sample before continuing with the cleaning because oil-based contamination seeps into pore spaces of the rock.
- Clean again with Dawn soap in beaker of 50ml vol.
- Decant water out of the beaker.
- Leave to stand in open air on a bench top in the Laboratory for 2 to 3 days to allow it to dry.
- Add 87:13 Chloroform: Methanol organic solvent mix to sample in 50ml beaker until you are at 30 to 40 ml height (about 90% full). Stir
- Cover tray of beakers that contain samples tightly with aluminum foil and leave to extract in a fume hood cupboard up to 4 hours
- Start the procedure of decanting to clearness: uncover the samples and carefully decant out the chloroform: methanol solvent without losing samples. Add more chloroform: methanol to about 90% full, cover with aluminum foil and leave to extract up to 4 hours.
- Uncover the samples, carefully decant out the solvent and then add more chloroform: methanol solvent to about 90% full and then cover tightly again and leave to extract 4 hours or overnight if needed.
- If clearness has emerged now thereby signifying that extraction of oil-based mud is now complete; Carefully decant out the solvent and leave the samples in the fume hood cupboard for a couple of hours so as to completely drive off the solvent and then let the samples dry out in the open air on a bench top in the laboratory for 2 to 3 days.
- Proceed on with analysis of the samples on the HAWK.