Southwest Spectro-Chem Labs

Lube Oil Sampling Procedure

Overview:

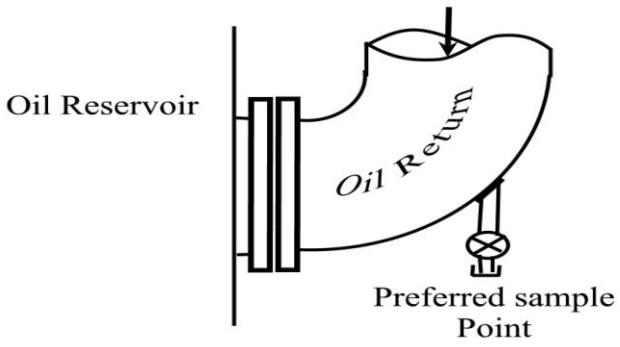
- The sample should be a snapshot of the condition of the equipment, the lubricant, and the contaminants.
- The sample should be representative of operating conditions.
- Remember, the analysis is only valid if the sample is representative; garbage in – garbage out. Be clean and consistent.

Step 1: Identify Sample Location

- Confirm the correct machinery and lube system to be sampled.
- Locate the optimal sample point (see fig. 1).
- Proper valving and piping should be installed to ease the procedure.
- Mark or tag the location to assure the sample will be consistently taken at that point.

Figure 1

- The preferred point is on the return line to the sump.
- Option 2: pump discharge prior to filter (after the cooler if possible).
- Option 3: drawn manually from reservoir near oil return.
- Option 4: side of reservoir near return line.
- Option 5: bottom of reservoir (requires a thorough purge of water and sediment).



Step 2: Clean Sample Point

- Use a clean rag to thoroughly wipe the sample point clean of any debris or deposits.
- Any caps or plugs should be removed and the pipe threads at the sample point wiped clean.
- Solvents are not recommended due the possibility of contamination.

Step 3: Flush Sample Point

- Purge at least 4 to 8 ounces of lubricant in a waste container before sampling.
- More flushing may be necessary depending on the sample point location or type of equipment. For example, reservoirs and dead-legs will require additional flushing.

Step 4: Sample Carefully

- Avoid touching the sample container to the sample point.
- Avoid sampling in conditions like high wind or rain.
- Fill the sample container to capacity, leaving a small air gap (generally ¼" below the cap threads).
- Seal swiftly and securely.

Step 5: Label Sample

- Label the sample immediately to avoid confusion with other samples.
- Provide complete information; this will assure accurate processing once the sample reaches the lab.
- Pre-printed labels will ease the process (see fig. 2).

Figure 2

- This is an example of a computer generated bottle label.
- Some entries like "DATE", "HRS." (hours of operation), and "COMMENTS" will need to be filled in by hand.
- Too much information is better than not enough.

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YOUR COMPANY NAME 000000
PORT LAVACA
DATE: 8/30/2006 UNIT: 2-1
MAKE/MOD: #1 COOPER BESSEMER
OIL USED: GE-150-TC HRS: 2150
COMMENTS: UNUSUAL V IBRATION

Step 6: A Job Well Done

- After completing steps 1 through 5 for all your samples, make sure your hard work doesn't go unnoticed. Take care of your samples.
- Store them in a cool, dry place.
- Insure the lids are on securely before shipment.
- Use absorbent packing material to secure them in the shipment box. Please do not use loose absorbent like "oil-dry".
- Include contact information or instructions if a special service is required.
- Do not allow your samples to sit around; ship them for analysis within 5 days of sampling.