

# Recommended Sampling Procedures



**US PETROLON  
INDUSTRIAL, INC.**

# USPI Ball Valve Sampling Procedures

1. Only sample running machinery operating at normal/optimum temperatures.
2. Never sample machinery that is not running or shortly after machinery start-up.
3. Remove 1/4" plug from the sampling valve.
4. You may need to wipe clean the sample valve.
5. PURGE 4 oz. of oil by slowly moving the ball valve handle in a downward direction. DISCARD AND DO NOT SAMPLE THIS OIL! This cleans the oil sampling valve and piping leading to the sampling valve of any "heavies" or water that may accumulate in low or idle areas of oil flow.
6. Due to the extremely small particulate size being measured via oil analysis, please do not remove the oil sample bottle cap until the final sample is ready to be drawn into the bottle. Airborne solids and moisture can enter the sample bottle and skew the lab analysis.
7. Fill each sample completely to the top of the bottle, firmly closing lid (note: NH<sub>3</sub> samples must first be vented by applying lid loosely before tightening).
8. Insert and tighten 1/4" plug back into ball valve.
9. Complete the sample label you received from USPI including: sample date, fluid and machinery hours, serial numbers, etc.
10. Immediately send completed oil samples to the appropriate oil analysis lab.



**FIGURE 1: USPI BALL VALVE**

## **Improper Oil Sampling Procedures**

The greatest hindrance to a successful oil analysis program is improper oil sampling procedures. Failure to follow the recommendations in this chapter will make the oil analysis program cost more time and money and lower its effectiveness. Re-sampling requirements incur labor and financial costs. Re-sampling also delays lab results, which may indicate the need for critical action, and increases the potential for unnecessary equipment wear increases as maintenance lags. Finally, improperly taken samples may indicate the need for filter or fluid changes when none are necessary.

The following common problems may lead to a skewed oil sample:

- Dirty hands, gloves or sampling valve
- Dirty atmosphere when sample was taken.
- Sampling bottle lid left off for extended period of time allowing airborne contaminants and moisture to enter bottle
- Sampling equipment while it is not running
- Sampling before equipment has run long enough to reach operational temperature
- Not purging the sampling valve
- Taking the sample from purged oil

