

# Fluid Sampling & Transport

## Sampling - Water

- Use glass jar (plastic container okay if glass unavailable)
- Best is to use 1000 mL clear glass bottles with Teflon-lined caps. If possible, make sure there is no headspace in the bottle.
- Plastic may affect any NAPL dissolved in water – check with laboratory
- Obtain during bail-down tests or other sampling event
- Optimum volume = one liter. The lab can work with volumes as small as 250 mLs for fluid properties tests.
- For Fluid Properties no preservation except chilling
  - Bactericide (bleach, formaldehyde)
  - Bactericide can affect test results – check with laboratory

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## Sampling - LNAPL

- Use glass jar or steel canisters
- Obtain during bail-down tests or other sampling event
- No water or foreign material
- Prefer a volume of one liter. However The lab can work with volumes as small as ~250 mLs for fluid properties tests. The can be sent in 40 mL clear glass vials (VOA's) with solid Teflon-coated caps (septum caps leak). If VOA's are unavailable, a pint or 4 oz glass jar with Teflon-lined cap is acceptable. Leave approximately 1/8" headspace in the vials to allow for expansion. If necessary, include produced water to minimize headspace.
- No preservation

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## Shipping Fluids - Water

- Routine shipments, few restrictions
- Use leak proof container (ice chests are most commonly used)
- Double or triple plastic bagged
- Bubble wrap or foam to keep from breaking
- Use Absorbent material for breakage
- Ship in ice chest or use Non-Hazardous Bottle Shippers
- Check with shipper for latest regulations and restrictions

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## Shipping Fluids - NAPL

- Hazardous Materials have shipping restrictions - Check with shipper for latest regulations and restrictions
- Use Hazardous Material Shipping container – Purchase from laboratory supply company
- Optional – Wrap VOA's in plastic bag and bubble wrap, enclose in a metal can filled with vermiculite or other protective/absorbent packaging and packed in box meeting D.O.T. and U.N requirements.
- Need: SHIPPERS DECLARATION FOR DANGEROUS GOODS – contact overnight courier, shipper, or regulatory agency for instructions

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## Warning Regarding NAPL Shipments

- Dangerous Goods/Hazardous Material shipments must be prepared in accordance with International Air Transport Association ("IATA") Dangerous Goods Regulations, D.O.T. and U.N. requirements.
- Dangerous Goods/Hazardous Materials require special packaging, marking, labeling, and documentation. These shipments must comply with government regulations and Shipper Policies.
- It is the shipper's responsibility to correctly identify, classify, package, mark, and complete documentation for their dangerous goods shipment.
- Public seminars on dangerous goods as prepared under the International Air Transport Association (IATA) are available.
- Third-Party vendors specialize in HazMat Packaging are available.

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- HazMat Shipping Container: May be purchased at laboratory and safety supply companies.

