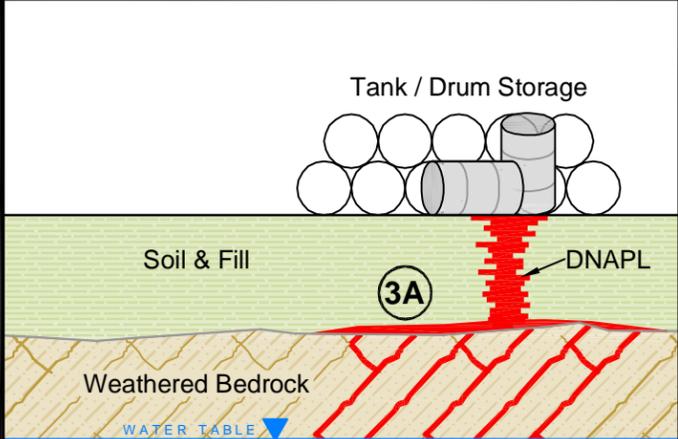


Figure 5.1-2 Overview of Fate and Transport Mechanisms (Non-Carbonate Bedrock Setting)

1. GEOLOGY	2. HYDROGEOLOGIC ZONES	3. NAPL TRANSPORT PROCESSES	4. AQUEOUS TRANSPORT PROCESSES	5. VAPOR TRANSPORT PROCESSES	6. FATE PROCESSES
 <p>Tank / Drum Storage</p> <p>Soil & Fill</p> <p>Weathered Bedrock</p> <p>WATER TABLE</p> <p>DNAPL</p> <p>3A</p>	<p>VADOSE ZONE</p>	<p>3A DNAPL ACCUMULATION AND LATERAL SPREAD ALONG THE RESIDUUM/BEDROCK INTERFACE</p>	<p>INFILTRATION</p> <p>↓ ↓ ↓</p> <p>UNSATURATED FLOW OF GRAVITATIONAL WATER</p> <p>DISSOLUTION FROM DNAPL</p> <p>RECHARGE AT WATER TABLE</p>	<p>DIFFUSIVE LOSS OF VAPOR TO ATMOSPHERIC & INDOOR AIR</p> <p>↑ ↑ ↑</p> <p>VAPOR DIFFUSION</p> <p>EVAPORATION FROM DNAPL</p> <p>VOLATILIZATION FROM THE WATER TABLE</p>	<p>AEROBIC DEGRADATION</p> <p>PARTITIONING FROM SOIL VAPOR TO PORE WATER (REVERSIBLE)</p> <p>SORPTION ONTO ORGANIC CARBON FRACTION OF FORMATION SOLIDS (REVERSIBLE)</p> <p>SORPTION RETARDED INTRAGRANULAR AQUEOUS DIFFUSION (REVERSIBLE)</p>
<p>Competent Bedrock</p>	<p>SATURATED ZONE</p> <p>FRACTURED AQUIFER</p>	<p>3B DNAPL SEEPAGE INTO FRACTURES AND BEDDING PLANES</p>	<p>LATERAL ADVECTION (FLOW)</p> <p>→</p> <p>VERTICAL ADVECTION</p> <p>↕</p>		<p>SORPTION ONTO ORGANIC CARBON FRACTION OF FORMATION SOLIDS (REVERSIBLE)</p> <p>SORPTION RETARDED AQUEOUS DIFFUSION INTO RESIDUUM AND ROCK MATRIX (REVERSIBLE)</p> <p>TRANSFORMATION OF PARENT COMPOUNDS TO DAUGHTER PRODUCTS</p> <p>SORPTION RETARDED INTRAGRANULAR AQUEOUS DIFFUSION (REVERSIBLE)</p>