



USING SPILL HAND IN PETROLEUM AND SALT CONTAMINATED SOILS

BACKGROUND: SPILL HAND™ was developed to bridge the gap between the very technical and academic world of pollution remediation and the very real HANDS-ON situations that exists in our nation's oil and gas industry. SPILL HAND™ offers an alternative to "office talk" and "environmental policies" by placing a very powerful, highly active remediation tool directly in the field with the people that are in a daily position to make a difference. In short, an executive decision from today's office meeting can be put into action in the field the very next day. SPILL HAND™ is virtually dust-free and tan-colored with a nominal particle size of 1 millimeter (SGN 100) so it blends and mixes well with many soils, gravels, and sands. It is a combination of the absorbent ECOZYMATE™ with a proprietary blend of oil-degrading microbes with other natural soil amendments and bio-activators. In addition to working well, it looks good wherever it is placed.

USAGE: SPILL HAND™ is formulated to mitigate and remediate virtually every type of spill that might affect soils in and around oil and gas production wells, pipelines, compression equipment, tank battery facilities, and any other working operations. It can even be used on hard surfaces and concrete inside or out. SPILL HAND™ absorbs most types of oilfield chemicals, saltwater spills, waste oil leakage, and of course produced oil and condensate. No scientific analyses or engineering design is necessary before using SPILL HAND™. No specialized training of field hands or purchasing of new equipment is required to get started. It provides on-the-spot treatment so small problems do not spread into larger ones. However, as always personnel should follow industry-standard safety and environmental protocols.

SPILL HAND™ truly becomes an additional "Hand" in the field working on spills 24/7 when used properly.

SAFETY AND ENVIRONMENTAL: SPILL HAND™ is non-toxic, non-corrosive, environmentally helpful, and immediately increases the safety and environmental health of an area where it is used. SPILL HAND™ improves traction in slippery work areas, suppresses harmful vapors, absorbs hydrocarbons and other liquids, adsorbs heavy metals, breaks down hydrocarbons, captures sodium and other metal ions by chelation or adsorption, and finally re-establishes a favorable soil environment.

GENERAL DIRECTIONS FOR USING SPILL HAND

NEW AND EVERYDAY SPILLS: *Gaugers, pumpers, and work crews should carry SPILL HAND™ with them on their daily routines for the occasional pipeline/flowline leaks, stuffing box failures, workover spills, tank leaks, load line drips, or produced fluid overflows. Responsible companies can also make a practice of requiring workover rigs, frac units, wireline operators, swabbing crews and all other well service entities to sprinkle SPILL HAND™ on their own hydraulic and equipment oil drip areas where feasible.*

DIRECTIONS: Simply tear or cut open the SPILL HAND™ bag for larger areas or open the fill-tube end for smaller spills and distribute an even coat of material on the free liquids and stained surfaces. Continue coverage until all wet surfaces appear dry. Allow a few minutes for sufficient absorption action before disturbing, then simply blend in with the existing soils where permissible, adding more SPILL HAND™ as wet pockets are encountered. Cover the spill area completely.

OLD AND EXISTING SPILLS: *Typical oil and gas operations have indications of past spills. Whether a release caused a minor grass kill, or a longer-term full-soaking of upper level soils, SPILL HAND™ is the right choice.*

DIRECTIONS:

Cover the entire spill area completely and work into the affected layers of soil. Add additional SPILL HAND™ as contamination is encountered until a well-coated and aerated mixture is achieved. The more the contact, the better will be the remediation. Continue this process until the desired remediation depth is reached. If the soils are dry, add water to activate the microbes. For severely contaminated areas, add any commercial soluble or liquid lawn/garden fertilizer containing Nitrogen, Phosphorus, and Potassium (NPK) at labeled rates. This can be purchased at any local home and garden or agricultural supply store. For expedited remediation, keep the treatment area damp.

Asphaltic or paraffin-rich oils may require an additional pre-treatment with an environmentally-friendly solvent or cleaning agent to speed the recovery process. SPILL HAND™ works best if it can actually absorb the liquids being remediated.

NOTE: Temperature and moisture levels play an important role in the entire remediation event. Water allows the mobility of ions and nutrients as well as provides a medium for sustained bioremediation. Warmer temperatures speed the process of remediation and therefore shorten the necessary treatment time. When quick remedial times are necessary, attention should be given to both soil moisture levels and temperature. Maintaining optimal moisture levels will encourage a steady, uninterrupted remediation of contaminants. However, the SPILL HAND™ will continue to work as natural moisture and temperatures become favorable.

SPILL HAND™ and ECOZYMATE™ are registered trademarks of Clean Land Products, L.P.