

SERVICE COMPANY	Document: Standard Operating Procedure (SOP) – Cleaning Tanks and Pits

Standard Operating Procedure

1. Purpose

This Standard Operating Procedure is illustrated for hydro excavators with respect to cleaning tanks or pits on location. This is to protect workers when working/cleaning on, in and around tanks and pits when requested.

2. Scope

This Standard Operating Procedures is intended for all hydro-operators and swampers, assigned by Mallard Exploration.

3. Prerequisites

- Obtain proper work permits and notify local utilities as appropriate and required by local laws and regulations.
- Ensure all equipment is in good working condition. This includes all safety regulations, inspections, and DOT operating authority.
- Ensure all workers are properly trained and briefed on safe work plan, as requested by Mallard and Service companies HSE policies.

4. Safety Protocol - Personal Protective Equipment (PPE)

- Equi-potential bond mat.
- Fire Resistant clothing.
- Eye protection, to include face shields with hard hat halo.
- Hearing Protection.
- Face Shield
- 4 Gas monitors
- Gloves.
- Tyvex FR Disposable suit, if required, and determined by JSA meeting and/or Risk Assessment conducted.
- Rain Gear/Suit, if required, and determined by JSA meeting and/or Risk Assessment conducted.
- Any other PPE as required by Mallard Exploration and Service companies HSE policy and/or customer.
- Have all emergency contacts on hand or in truck.

5. Hydro Excavation Vehicle Set Up

- 1500 PSI maximum wand water pressure.
 - 200 Degrees F (93.3 degrees C) maximum wand water temperature.
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7. Tank/ Pit Cleaning Procedure

Job Step #1 - Perform a quality pre-trip on the Hydrovac being used for the job.

Job Step #2 - Ensure all tools necessary and required for the job are on truck, easily accessible, and in acceptable safe working condition. Operator and swamper must ensure all PPE is available and in satisfactory working condition. Gas Monitor must be charged, in satisfactory working condition, and bump test prior to each day's use.

Job Step #3 - Service personnel will use Journey Management practices and communicate with the supervisor prior to safely driving to location. Defensive Driving Techniques along with Emergency Response procedures will be enacted in the event of an accident/incident.

Job Step #4 – Service personnel will arrive safely on location. JSA meeting will be conducted, and communicated with all parties on location. Personnel will conduct a site assessment/JSA, and complete Hot Work Permit, if needed, and reviewed with all applicable personnel.

Job Step #5 – Services personnel will ensure that the tank and or pit is emptied out and all lines coming into and out of the tank or pit are Locked and Tagged Out. Service personnel will ensure all pressure has been released prior to cleaning tank/ pit. At **no time** will Service personnel enter the tank or pit.

Job Step #6 – Service company will set-up/rig-up hydrovac truck to include proper grounding with wheels being chocked throughout the scope of the job until completion.

Job Step #7 – Begin flushing the tank/ pit until clean.

Job Step #9 – Replace all plugs and remove Lockout – Tagout Locks.

Job Step #10 – Dispose of waste at proper waste facility with proper manifest for disposal.