



PROGRESSIVE PIPELINE CLEANING

When considering a pipeline pre-inspection cleaning operation; when cleaning a pipeline that has not been pigged for some time, or perhaps when decommissioning a pipeline, it is usual to adopt a progressive cleaning approach. Progressive cleaning is a method which allows the pipeline to be cleaned progressively and safely, without the risk of excessive liquids or debris removal or blockage. It is not necessarily an indicator that many pigs will be required, but it allows pig selection to be made based on data received before and during the operation.



Propipe personnel are experienced in the selection and design of pigs suitable for such campaigns and will work together with their client to provide the most effective and safe pigs for each individual pipeline. Stages of progression would typically be as follows: -

Stage 1 – Pipeline Review

Propipe will work with the pipeline engineers to determine the age, previous pigging history and internal condition of the pipeline, to see how many of the 'stages' are required. It may be unnecessary to perform all stages of the progressive cleaning programme, or it is usually possible to combine stages. Pig selection for performing the various stages of a progressive cleaning programme is made to prevent use of over-aggressive pigs too soon, which could cause the pig to become stuck, either due to an unknown feature / defect in the pipeline or because the pig has removed too much debris. The results of each pig run are carefully assessed before selecting the next pig type to be run through the pipeline and a series of pig layouts / configurations are provided to allow on-site reconfiguration by the client. The intention is that the selection, quantity and design of the pigs will allow the deployment of the minimum quantity but with sufficient spares and design flexibility to allow one mobilisation for the operation.

Propipe also has the ability to perform piggability testing at its premises in Hartlepool, so any suspected features which could prove an issue during the pigging operation can be replicated and tested prior to deployment. These features can include ID changes, known dents or buckles and also debris deposits (such as sand or wax). Pre-operational pig testing allows full data on pig performance to be valued prior to use, so clients are fully informed of the minimum and maximum performance ranges for each pig selected.

Stage 2 – Proving

To establish whether or not a pig can pass through the pipeline from the launcher to the receiver.

Stage 2 – Gauging

To establish the size of any restrictions within the pipeline – using a conventional or SMART gauge pig

Stage 3 – Initial Cleaning

Loose debris and/or liquids removal – using low aggression pigs with bypass

Stage 4 – Full Cleaning

Ferrous debris, dust or scale and hard wax removal – here we would select from a series of pigs using brushes, bypass, magnets and aggressive pig design, to provide an efficient cleaning operation.

Stage 5 – Operational Cleaning

If the pipeline is to remain operational a series of maintenance cleaning pigs can be provided, with recommendations for an ongoing cleaning regime. These can be monitored, inspected and maintained by Propipe and run with Trident PDL datalogger tools to ensure that the pipeline remains clean and efficient.



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