

Innovation Idea of GSB for the Fiscal Year 2019-20:
“Customized Hydraulic Casing Recovery Unit (CHCRU)”

Conventional Casing Recovery System and its limitations:

Geological Survey of Bangladesh (GSB) conducts exploration drilling for solid minerals and hence installs steel casing pipes in the borehole at different depths of different formations for well control. These casing pipes are expensive and imported from international market. Practically, these are recoverable fully or partly and can be re-used. Installed casings are recovered and reused in GSB. But the conventional recovery process that is used in GSB is not so easy. From the very beginning, GSB used to recover the casing with the help of screw-type mechanical jack. This type of recovery process is time-consuming, laborious and high-risk for the operators as well as machinery & equipment. In almost all the previous casing recovery program, some working staffs were injured and needed long time to complete it.

CHCRU- the innovation to overcome the limitations:

To eliminate those above mentioned limitations of the conventional casing recovery process, we have taken an innovative idea to design and construct a Customized Hydraulic Casing Recovery Unit (CHCRU) utilizing the available technology and components/parts in the local market.

The CHCRU will be constructed in our unique style and customized two jacks (a pair) system and will be easy to set-up and handle. The capacity of the unit will be 100 ton and there will be two pairs of jack, one for high-pressure/short stroke (primary jack) and other for low-pressure/long stroke (secondary jack). The hydraulic pressure will be generated by two high pressure hydraulic pumps and will be provided to the two jacks equally and will result upward pressure to the piston. This upward pressure will push the jacking plate which holds the casing and ultimately the casing will be lifted up.

Benefits of using CHCRU instead of Conventional Casing Recovery:

The innovation of CHCRU will bring a touch of modern technology to casing recovery process. It can be confidently stated that it will be very much effective and will change the whole scenario of the casing recovery as well as fishing operation. Implementation of CHCRU will:

- Significantly reduce the risk factor due to remote operation.
- Save cost and time up to 70%.
- Reduce man-hour requirement.
- Increase casing recovery rate.
- Reduce maintenance cost and effort.
- Help to calculate the applying load on the casing.

Other organizations and private companies, who are engaged in similar type of activities, will be able to take this innovative idea.


12.09.19

মোঃ মহিরুল ইসলাম
উপ-পরিচালক (ড্রিলিং প্রকৌশল)
বাংলাদেশ ভূতাত্ত্বিক অধিদপ্তর
সেতুনবাগিচা, ঢাকা-১০০০