Maxibor - A Dynamic Business Leading The Horizontal Directional Drilling Industry

Maxibor Vermeer 330x500 maxi-rig at Greenbank project for Logan City Council

Maxibor, is an independently Australian owned Horizontal Directional Drilling (HDD) design and construct company with operational bases in Queensland, New south Wales and Victoria. Maxibor provides its HDD services across all the infrastructure sectors with a large fleet of two maxi-rigs, two midi-rigs, two rock rigs and five smaller rigs.

HDD Knowledge Sharing

The knowledge of how HDD can provide solutions to infrastructure installation has progressively developed across the various infrastructure sectors through the past decade to the extent that HDD is now a commonly utilised solution for the installation of infrastructure. Most major rail, road, water and sewer, gas, power, telecommunications, data centres, fuel, sea cable, rail and mining projects are involving HDD solutions in their projects.

Whether it be asset owners, Tier 1 and major contractors or design engineers, there is still however opportunity for the industry to be better educated on HDD solutions. David Turner, Maxibor's National Business Development Manager says " through our cooperative and knowledge sharing approach, Maxibor is more than willing to assist any participants in the infrastructure sector to help strengthen their understanding of HDD at a broad level or through friendly access to our expertise at a specific project design or delivery level".

Maxibor applies its expert design and drilling methodology development capabilities to the more routine projects through to the most complex infrastructure projects. It develops a design with an aligned drilling methodology for each project. The iterative process takes account of key risks and other factors such as access, tooling, penetration rates and environment. A comprehensive construction schedule is also prepared for each project to provide an operational framework for the delivery of the works.

Recent Projects

Maxibor has continued to be active in the delivering of projects across Australia through these current challenging times. In just the past few months Maxibor has been involved in rail, gas, water, telecommunications and power projects in several states. It strictly adheres to its own, and its clients', covid-19 policies and procedures to protect all participants in the projects as well as the broader community. Our ability to service Queensland, New South Wales and Victoria projects with local crews and plant overcomes many of the interstate travel constraints.

One of the recent projects undertaken by Maxibor was the installation of a series of 3x140mm and 4x140mm bores over a total distance of 1.7km as part of the early power works for the Department of Transport and Main Roads (TMR) upgrade to the Bruce Highway between Cooroy and Curra in Queensland.

Maxibor subcontracted its HDD services into Trafflec for the delivery of these works. Prior to the commencement of the works, Maxibor provided Trafflec with a detailed drilling methodology. This enabled Trafflec to provide assurance to Energex and TMR that the works would be able to be undertaken in a capable manner and that all key risks would be adequately addressed.

Given the variability of the ground conditions, Maxibor utilised three types of rigs on the project. On the larger 4x140mm bores, a Vermeer 100x120 midi-rig was used. For the bores where there was very hard rock (Argillite up to 400MPa), a Vermeer D36x50DR Series II rock drill was used to complete the pilot holes. A Vermeer D36x50 Series II was used to ream the harder rock bores and to do all the lower strength rock and OTR bores.

Technology and Innovation

Maxibor's extensive involvement in the trenchless industry enables it to be a dynamic industry leader by applying the latest technology to help deliver projects in a safer and more environmentally friendly manner and within the shortest timeframe. All with the objective of helping to optimise overall project outcomes for all stakeholders.

Maxibor has been one of the first HDD companies in Australia to use the MAG 8, a magnetic guidance system to track the position of the drill head. The stronger frequency transmitters on the magnetic guidance systems can provide readings from depths of up to 100m. The enhanced technology saves valuable time and significantly enhances the accuracy of the bore alignment thereby reducing unwanted consequences of the HDD operations.

Maxibor has also been involved on projects which have involved the first use in Australia of high-stress, crack-resistant (HSCR) polyethylene pipe, with an expected design life of 100 years. The first use of this pipe for mains water in Australia was by Livingstone Shire Council for a 382m water pipeline installed by Maxibor under the Causeway at Yeppoon.
Logan City Council located in the rapidly growing south east

Queensland region engaged Maxibor Australia to complete a series of bores using HDD to help connect the Greater Flagstone Priority Development Area with the Cedar Grove sewerage treatment plant. The project required completion of a series of seven bores including a single bore of 1.320 kilometres, the longest in the Council's history.

The long bore reached a depth of 56 metres and was tracked using the MAG 8 tracking system. The 500mm PE100 HSCR PN20 pipe used on the long bore was the first time this product was used for a wastewater project in Australia. The other six bores on the project ranged in length of between 175m and 400m and pipe sizes of between 450mm to 560mm.

Maxibor is also leading the way reducing costs and emissions associated with the disposal of drill fluid waste. One-site cleaning and on-site solidification of drill fluid prior to disposal is reducing both disposal costs and emissions through reduced transport activity.

Relationship Respect Response

The success of Maxibor has been underpinned by building Relationships, gaining Respect and providing Response. Maxibor sees that its cooperative approach is the right way for others to follow, especially in these challenging pandemic, economic, environmental and social times.

Vital to the cooperative approach is knowledge sharing. Rodney O'Meley, Maxibor's owner and CEO says, "It is something which has held societies together for untold generations - and it is even more important in these difficult and changing times. We all need to stay kind!"

The knowledge sharing concept is embodied in the logo of Indigenous business Native Earthworks which is one of the several Indigenous businesses Maxibor has been assisting to better participate in the civil construction sector.

Maxibor Vermeer 36x50DR at Gympie for Trafflec and TMR

Chris Young, a proud Torres Strait Islander and owner of Native Earthworks says "the symbol of two people sitting together to share knowledge has its origins from societies 12,000 years ago. I really like the Maxibor culture of sharing knowledge and cooperating with all stakeholders across the project delivery process. It is certainly helping to make a difference for Native Earthworks".

For more information on Maxibor contact David Turner on Ph: 0499 375 511 or visit www.maxibor.com.au