Verband Güteschutz Horizontalbohrungen e.V.
Drilling Contractors Association (DCA Europe)
Assosiation des Entrepreneures de Forage Dirigé

large scale drilling

Newsletter

small scale drilling

01/2020

Scott Stone becomes DCA representative for the UK
Four new regular members from the island

DCA Members‘ Forum Aachen
Discussion forum established

Global Corona Pandemic
25th anniversary celebration and 25th annual congress postponed

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Preface

Dear friends of the DCA,

First of all I hope you are personally in good health and the same applies to your family and friends. In these strange times where the way we live has dramatically changed, personal health is more important than ever. And where everybody tries to work from home as much as possible, our core business, performing HDD´s, cannot be done from the dining room/home office. Our work is very much, rain or shine, with the boots on the ground or in the mud.

However, where in many industries the activities had to be stopped, and in later stages only resumed with drastic changes and often limited capacities, the HDD business seems to be blooming. That is, as long as the jobs are within one country and there are no cross border issues requiring crew to go into quarantine upon arrival or return. All these different regulations in various countries, but also sometimes different approaches and measures, have made those working internationally, realise once again how the European Union, with open borders, level playing fields and similar requirements has made our lives so much easier.

The effects of the Covid-19 is limited for most of us to office jobs being done from home, which is not always easy with children requiring attention, limited space on the kitchen table with both partners working at home and three children dong their homework at the same time. Videoconferences with interesting back grounds in both vision and sound are common ground now for most of us. And obviously extra attention when in the office and on the job sites, with frequent washing of hands, additional cars and units on site. But in general, HDD is business as usual.

But, unfortunately, the board had to cancel our planned 25 years anniversary. For all of us, members of the DCA, this is certainly disappointing, but for the hotel/restaurant business the whole situation is obviously much more dramatic, since everyone is cancelling all sorts of events.

In the board we have now also taken the decision to cancel the yearly congress, with great regrets and pain in our hearts. This event is not only a technical highlight, but also highly appreciated for the social effect. It is the social glue between our members, being contractor, engineer or supplier, it is a great opportunity to reminisce as well as to meet new people; However, in the current situation, with unpredictable developments in the field of travel, the difficulties of handling more than 120 people in a large and smaller rooms while keeping distance and with enough, sufficiently clean air we saw no other possibility than to cancel this years conference. Nevertheless, the energy that has been put into the organisation of it is not completely wasted, in 2021 we will still visit Bonn and follow roughly the same programme elaborated so far.

The board has also been working refreshing the DCA. The website will be updated with a special members' corner. New software has been purchased to be able to refresh our flyers. As you can see the newsletter has been restyled but at the moment only with a new title page due to lack of time. It is planned to print a German/English version in order to reduce the carbon footprint in December 2020. We have also discussed the recently introduced and well received yearly members' forum. This event only for members, has so far only been offered in German, but we would like to make this available to all members. We think we have found an interesting solution for this. The members' forum will be held bilingually for the first time in 2021, i.e. in two separate rooms, the German and English-speaking groups will discuss the topic of the forum „Subsoil parameters". For this purpose we ask for your active participation. For further information, please refer to this newsletter in the usual place.

From a safe distance, I hope we will all remain in good health, with many good and interesting projects we can see interesting presentations of in the years to come.

Best regards,

Jorn Stoelinga, President

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DCA Members' Forum took place in Aachen

Topic: „New trenchless techniques in the field of HDD technology"

The third DCA Members' Forum which took place in January 2020 in Aachen was well attanded with 23 participants.

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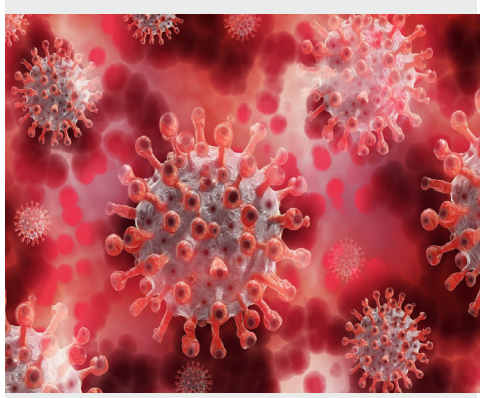
The DCA at times of Corona

25th anniversary celebration, Annual Congress, Members' Meeting and Oldenburg Pipe Forum postponed



The massive spread of the Corona virus and its consequences are omnipresent

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DCA Members‘ Meeting in Oldenburg

25th Anniversary in view

As always, the members‘ meeting of the Drilling Contractors Association, DCA, was well attended. Two events with anniversary character were in the center of attention.

The agenda, this year without regular elections, was quickly completed. DCA President Jorn Stoelinga could point to a further positive development of the number of members. After 104 in 2017 and 112 in 2018, the DCA can start the year 2020 with 119 members, the highest number of members in the association‘s history.

DCA President Jorn Stoelinga leads through the members‘ meeting of the DCA

Part of this history are the companies Beermann Bohrtechnik, Herrenknecht AG, Moll-prd and Prime Drilling, which were honored for 20 years of DCA membership. The same applies to Dietmar Quante, who has been shaping the development of the association as Executive Secretary for 20 years now.

Honour for Dietmar Quante for 20 years of management

In addition to the participation in two blocks of lectures at the Oldenburg Piping Forum 2019, an international conference in Poland and the International No Dig Conference in Florence, the review of 2019 was mainly directed towards the successful annual congress of the DCA in Krakow. With 145 participants, the event was once again very well attended and the evaluation of the participant survey on content and organisation gave an all-round positive picture.

A further focus of the DCA‘s activities in the past year was in the area of education and training. The HDD course for technical supervision in December 2019 in Kassel was very well attended with 112 participants. The DCA Members‘ Forum exclusively for DCA members, held in Aachen, also met with a positive response with 22 participants and was considered a success.

While task group 1 „Disposal of drilling mud and cuttings“ was able to complete its work, task groups 2 „Coating quality“ and 3 „Revision of the technical guidelines“ are still active. In addition, the new task group 4 has been added, which deals with the topic of digitalisation.

View into the meeting room

For the year 2020, the DCA has set itself the goal of gaining new members throughout Europe. Furthermore, the association wants to focus more on topics and concerns that are especially important for small scale drilling technology.

One of the highlights of the year 2020 will be the anniversary event on May 7th in Brussels on the occasion of the 25th anniversary of the DCA. Among other things, a visit to the European Parliament and a joint dinner are planned. Preparations are also in full swing for the 25th DCA Annual Congress, which will take place this year from 7 to 9 October in Bonn/Königswinter. In the meantime the events unfortunately had to be cancelled due to Corona.

A. zu Eulenburg, bi

Oldenburg Pipe Forum 2020

DCA presents itself with lectures and the Drilling Saloon

About 3500 visitors came to the Oldenburg Piping Forum, the largest further training event in the pipeline construction industry in Germany, which took place for the 34th time this year. This year's motto of the major event was „Pipes and cables - Pipes for a modern infrastructure". The constantly growing importance of cable construction due to climate change, which is reflected in the expansion of power lines in Germany, was placed in relation to pipeline construction. Similarities as well as differences between the two fields were to be worked out and discussed on the basis of many presentations. The focus was also on lectures on hydrogen and other topics relevant to pipeline construction.

In the course of the five series of lectures at the Jade University of Applied Sciences set up by the Oldenburg Pipe Forum, the DCA was traditionally present with six interesting lectures in lecture blocks I and II, which were well received by the audience. In the exhibitor area of the fair, in which more than 400 international exhibitors were to be found, the obligatory booth of the DCA in western style could not be missing this year.

View into the Drilling Saloon

In the field of trenchless construction the DCA delivered six interesting lectures in two lecture blocks, the trenchless techniques I and II, which were again well attended.

The prelude was a lecture by Mr. Stefan Wittke from TDC International AG in Lucerne on the topic „ Anforderungen an die zusätzliche GFK-Rohrbeschichtung und GFK-Schweißnahtbeschichtung bei der grabenlosen Verlegung von PE-ummantelten Stahlleitungen". This additional coating of the highly demanded pipe sheathing represents a system solution in which various test procedures ensure an optimum product quality that provides a high level of protection against pipe damage during pipe jacking.

This was followed by a presentation on „HDD-Bohrungen für die 56-Zoll-Gaspipeline EUGAL – eine besondere Dimension" by Dipl.-Ing. Mohammad Alikab and Julian Hirsch, B.Sc., Bohlen & Doyen Bau GmbH. Wiesmoor. This project was used to demonstrate that horizontal flush drilling methods are suitable for cross-cutting larger product pipes of various media.

The first block of lectures was concluded by the presentation of Simon Herrenknecht, B. Eng., Herrenknecht AG, Schwanau-Allmannsweiler, and Dipl.-Ing. Timo Mücke, Beermann Bohrtechnik GmbH, Hörstel, under the title „ Horizontalbohrtechnik im Einsatz: Anlandung von Kabelleerrohren auf Norderney für das Offshore-Netzanbindungssystem DolWin6". The project was used to explain that trenchless technologies play a major role in the field of energy supply. The reliability of the material and the protection of the environment are important in this context.


Lecturers of the lecture block I

The second block of lectures on trenchless installation techniques was opened by Dipl.-Ing. (FH) Thomas Winkler, LMR Drilling GmbH, on the topic „Holland in Not – schwierige Kabelschutzrohr-Anlandungen an der niederländischen Küste". Problems with the occurrence of sinkholes influenced the success of the HDD drilling. He points out that especially when drilling in unstable ground and exit points at great water depths, the hydrological conditions are of great importance. In this context, he recommends early set-up and observation measuring points. The leakage of mud from the sea can be significantly reduced when drilling such blind holes in combination with pushing expansion. The risks involved in offshore work are also reduced by prefabricating onshore and then pushing in flexible HDPE pipes.

The next lecture on „Horizontal directional drilling with forward pipeline installation" was presented by Dr. Henk Kruse, Deltares, Delft, and Ir. Jorn Stoelinga, LMR Drilling GmbH, Oldenburg. The aim was to mini-

mise the costs of pipe feeding by a detailed analysis of this process. The correct model for the behaviour of the pipe should always be used, because the behaviour of the pipe is different with a thruster than with a normal pull back process. By adding the contingency factor of total friction, the risks of damage or inadequate equipment during pipe pulling are minimized.

Lecturers of the lecture block II

The series of lectures was concluded by Dr. Gregor Silvers, Max Wild GmbH, Bergheim, with his lecture „ Disposal concept drilling sludge disposal - a practical example from Bavaria“. LEW Verteilnetz GmbH, as a power grid operator, has been looking for solutions to the problem of drilling mud produced by horizontal drilling for years. A legally compliant drilling and disposal concept will be presented, which enables economical HDD drilling.

DCA president Jorn Stoelinga at the presentation of the prize to Jörg Himmerich, Dr.-Ing. Veenker Ing. gesellschaft mbH

The presentations for many interested people were rounded off with a visit to the exhibition area of the fair, where the traditional Drilling Saloon of the DCA attracts a lot of attention every year. The western atmosphere was well received by many visitors, who exchanged technical information over coffee and pastries as well as delicious cold beer and reviewed the lectures. Also this year‘s raffle of the DCA with the question about the total pulling power of all regular members of the association (HDD drilling companies) attracted a lot of attention and many tickets were put into the glass jar. The 1st prize finally went to Jörg Himmerich from the company Dr.-Ing. Veenker Ingenieurgesellschaft mbH, who was pleased to receive an „Alexa“ for his home. Finally, the DCA would like to thank all participating speakers for their informative presentations and is looking forward to hopefully great willingness in the ranks of the members to submit interesting lecture offers or suggestions for the next Oldenburg Pipe Forum.

Here we go again in 2021!

A. Quante, DCA

Please note the date!

35th Oldenburg Pipe Forum
15.-16.04.2021

Venue:

Weser-Ems-Hallen

Further education according to DVGW GW 329

Successfully for the 12th time

For the twelfth time, the technical supervisors and other HDD experts met at this advanced training event. According to DVGW GW 329, every responsible technical supervisor of a company certified according to DVGW GW 302 in the GN 2 group must attend such a training event within the validity period of the DVGW certificate.

View into the meeting room

As in the past, the event was organized by the Rohrleitungsbauverband e.V. in cooperation with the DCA and took place on December 10, 2019, again in Kassel. DCA Vice President Marco Reinhard was responsible for the technical management.

The first technical contribution by Tobias Engel dealt with the E-Power-Pipe® construction method, for which the Herrenknecht company was awarded the Bauma Innovation Prize 2019. This trenchless method was developed as part of the planned expansion of the extra-high voltage transmission network. Mr. Engel reported on the experience gained in the first construction projects and the advantages of the E-Power-Pipe® method in comparison to the open construction method and also HDD.

In the second lecture by Hans Block, new developments in gyrocompass measurement technology, explosive ordnance detection and other measurement systems from the Dutch company Brownline were presented. More than 15,000 projects have already been successfully carried out with gyro technology. In bomb detection, the use of the UXOscope ensures a safe zone around the pilot borehole. The latest technologies make it possible to measure boreholes even more accurately, especially for „meeting in the middle“ boreholes.

Afterwards, Frederik Palmer from the Bundesverband Breitbandkommunikation e. V. (German Broadband Communications Association) spoke about the world of fiber optic expansion. This association unites 80 % of the German broadband network operators, which together with the large telecommunications companies are currently responsible for strong growth in the HDD industry. Mr. Palmer reported on the status quo of the expansion and the needs of the telecommunication companies and the market. The capacities at the civil engineering companies were discussed as well as the wishes of the telecommunication companies to the civil engineering companies.

After the lunch break, Dr. Hans-Joachim Bayer reported on environmentally friendly fluid mining. In mining, HDD technology is increasingly used for metal extraction, the development of deposits and also for oil sands extraction. Flush drilling, which is carried out by inclined drilling rigs, enables new paths to be taken in these applications in terms of environmental protection and efficiency. Dr. Bayer reported that HDD systems are more cost-effective and less complicated in oil sands extraction than conventional oil drilling towers.

Ernst Fengler, LMR Drilling GmbH, during his lecture

Finally, Ernst Fengler presented a project of superlatives. A DN 300 water pipeline was installed over a length of 4,600 m, crossing under a strait. He reported on numerous technical challenges, particularly because drilling was carried out with two HDD systems and a „meeting in the middle“. Intensive work preparation, comprehensive risk management and the numerous service companies involved presented the project team with special challenges.

We would like to take this opportunity to thank all the speakers for their contributions and also the participants for attending in large numbers. In particular, the DCA would like to thank Dr. Hans-Joachim Bayer, who had contributed numerous lectures and other technical contributions over several decades.

M. Reinhard, DCA

Training at the Bohrmeisterschule Celle 2020

57 participants successfully trained

The DVGW courses GW 329 „Controllable Horizontal Drilling Methods“ were again successfully held at the Bohrmeisterschule in Celle in January and February of this year from 06.01. to 09.02.2020. A total of 57 participants could be trained. There were 13 participants in technical supervision A, 7 participants in technical supervision B, 5 participants in site manager A, 2 participants in site manager B, 29 participants in machine operator A and 1 participant in machine operator B. The courses at Bohrmeisterschule Celle took place as always in cooperation with the DCA, rbv and DVGW. The DCA also played a leading role in the technical monitoring of the final audits. Thank you very much for the lively interest.

The next courses will take place at the beginning of 2021.

A. Quante, DCA

Participants site manager A

Participants technical supervision A

Participants machine operator A

Insight into the practical instruction of the machine operators

HDD training in the Netherlands

Courses were successfully held at Deltares

For many years, the Deltares Academy, as an educational institution of DCA member Deltares in Delft, the Netherlands, has provided standard and/or tailor-made training for HDD and other areas.

The certified HDD courses are of interest to the personnel working on the equipment (machine operators, site managers), to clients, planners and others involved in the execution of HDD projects. The Horizontal Directed Drilling course series consists of two practical courses, an optional course on basic skills and a refresher course on developments in the field for renewal of the CKB certificate. All important aspects for the successful execution of horizontal directional drilling (HDD) are covered.

View into the seminar room

A minimum level of knowledge and skills is required for the proper and safe execution of a horizontally controlled drilling operation. This basic level is required both by the customer and by the trade association. The courses aim to achieve this desired basic level. To ensure this, the courses are concluded with an examination. A certificate is issued upon successful completion.

Participants at the training area

The executing personnel can obtain a CKB certificate by completing the courses HDD 1 and HDD 2. The course HDD 1 is CKB accredited for drilling rigs up to 40 t traction force. Course 2 is intended for the operation of drilling rigs with a tractive force of more than 40 t. The certificate is valid for 3 years and can be extended by attending one of the annual half-day refresher courses. In the future, it is planned that the certificate will become part of a European certification system.

In January 2020, 18 participants took part in the courses for drilling rigs of less than 40 t pulling force.

17 participants successfully completed the course. In the courses for drilling rigs over 40 t pulling force 6 participants successfully completed the course.

A. Quante, DCA

Please note the date!

18.-22.01.2021
HDD 1: For small
HDD projects ≤ 40 t

25.-29.01.2021
HDD 2: For large and
complex HDD projects >40 t

Deltares
Enabling Delta Life

DCA Members‘ Forum took place again in Aachen

Topic: „New trenchless techniques in the field of HDD technology“

The 3rd DCA Members‘ Forum, which took place under the topic „New trenchless techniques in the field of HDD technology“ at the end of January 2020 in Aachen, was well attended with 23 participants. 10 regular and 13 associate member companies, including contractors from both gas pipeline construction and cable laying, took part.

The discussion forum is an event reserved exclusively for DCA members. The forum is primarily aimed at decision-makers, project and site managers, technical supervisors as well as planners and clients, but is also open to foremen and maschine operators trained in accordance with GW 329. The event is currently held in German. For 2021 the event will be offered bilingually.

DCA president Jorn Stoelinga
in his statements

At the last annual congress in October in Krakow, the DCA held a workshop on „New Trenchless Techniques in the Field of HDD Technology“, in which intensive discussions were held with the participants on the fields of application of other installation methods as well as on the advantages and disadvantages compared to the classical HDD technology. In addition to the points mentioned above, the limits of application and the costs of the individual methods were also discussed. The methods compete with HDD in the field of large-diameter drilling and small-diameter drilling technology and represent a supplement to the classical construction method. In the course of the intensive discussions, the necessary technical knowledge for the users was discussed and answers were found to the question, which methods can reasonably complement the offer of the HDD companies. However, it quickly became clear that due to the limited time frame of the very well attended workshop, there is still a need for further clarification and information among the members.

Within the scope of the event in Aachen, a total of five processes were presented and intensively discussed by parts of the board and by Jörg Himmerich of DCA member Dr.-Ing. Veenker Ingenieurgesellschaft mbH from Hanover. Among the methods discussed were the Direct Pipe, the E-Power Pipe, the Easy2jet, the pilot pipe jacking method and last but not least the Direct Drill method.

The participants and the organizers of the
DCA Members‘ Forum

The following points were again considered in depth during the forum:

- What are and where are the application limits?
- What are the advantages and disadvantages of the process (compared to HDD)?
- What knowledge is required for the application?
- Which processes could be a useful addition to the pro duct range of HDD companies?
- Can the HDD process catch up with disadvantages of other processes in the future?

These and other questions were discussed in the very informative members‘ forum between clients, manufacturers and users. In the following, the characteristics of the individual processes are listed in a table.

A. Quante, DCA

DCA-Members‘ Forum, Aachen
Results of the workshop „New trenchless techniques in the field of HDD technology“

Table: Comparison of other installation methods in relation to the classic HDD method

	Direct Drill	E-Power-Pipe	Easy-2-Jet	Pipe Jacking	Direct Pipe
Features	- Use of the pipe string as a drill string - Pipe string is pushed through "Pipe Pusher" and rotated - Control like HDD with drill motor	- Near-surface tunnelling for long lengths - Pilot bore as microtunneling with special jacking pipes - Subsequent withdrawal of the jacking pipes and pulling in of the pipe string	- Irrigation lance procedure - Manual tunnelling with control as with HDD - Short drilling lengths - Measuring method Walk-Over	- Pipe jacking of different materials - Depths > 2 Da - mechanical soil degradation	- Prefabricated pipe string is advanced through "Pipe Thruster - Soil excavation and control with microtunneling machine mounted in front
Advantages	- Uninterrupted (continuous feed, as no boom change) - Low space requirement, pipe site - supported drill channel - No additional supply line - retractable	- Low risk of blow outs - supported drill channel - Position accuracy - suitable for coarse/permeable formations (see tunnelling) - Low drilling fluid demand	- Protection of existing infrastructure through - low pulling force - Small entry point - small space requirement	- suitable for coarse/permeable formations - max. diameter 3,5 m - closed mud circuit - Low mud volume - Position accuracy - no assembly lane / starting distance - Accessible by large diameters.	- suitable for coarse/permeable formations (see tunnelling) - Low space requirement at exit point - Retractable - Low mud volume - small overcut - short minimum length
Disadvantages	- few references - small diameters - Only pipe strings without corrosion protection requirements - Planning as few and large radii as possible - Complex handling of the pipe string on the roller conveyor	- only few references - Complex starting pit necessary - No rock material > 50 MPa - limited diameter pipe	- restricted length - small diameters - only sand, silt, clay	- Shaft structures with abutment - mostly only possible as protective tube - for small diameters and short lengths - Low drilling speed	- Dimension abutment - Space requirement rig site - Pipe preparation / post-processing - various Drilling machines for various Pipe diameter
Scope of application	- particularly landfall - Only steel protection pipes	- Especially when large length and small depth are required	- House connections, - alternative to the ground rocket	- Sewage systems - Inner city - Multi-section culvert	- large steel pipes - difficult, stony geologies
Application limits	- from 150 mm to 600 mm diameter	- up to 1.500 m length - 1.5 m - 4 m Laying depth - from 250 to 400 mm pipe diameter	- up to 40 m length - from 30 mm to 60 mm diameter	- up to 2.000 m length - from 250 to 3500 mm pipe diameter	- from 20 " to 56 " diameter - up to 1.500 m length
Significant cost aspects	- Land case: low offshore costs	- High transport costs for jacking pipes - Specialised device - Rig site /pipe site	- Simple technology mounted on tandem trailer	- High transport and material costs (jacking pipes) - Shaft structures	- Complex abutment - Specialized device

Review from the task groups

Video conferences support work

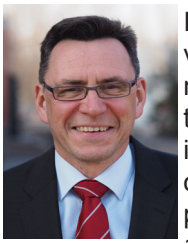
Task group 2
Coating quality

As already reported, this task group is in its final phase. All texts will be revised once again. About 70% are finished. The Corona crisis has prevented physical meetings of the task group so far, but the work could still be continued via video conferencing. We hope that personal meetings will be possible again after the holiday phase, so that we can put the finishing touches to the project.

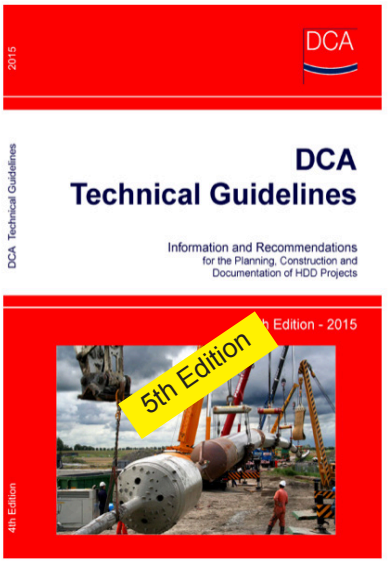
The result of this task group, in the form of a Technical Information of the DCA, will be about 40 chapters and subchapters, plus appendices. This volume was certainly not planned from the beginning. However, due to the variety of different coatings or coating systems, operating conditions, test procedures etc., it became necessary to describe them as briefly as possible, but also as comprehensively as necessary for the overall understanding. We are confident that we will have succeeded in doing this in the end and hope that you as a user will share this assessment.

M. Schnau, DCA

Task group 3
Revision of the Technical Guidelines



In task group 3 „revision of the Technical Guidelines“, the revision of the individual chapters of the guidelines, in particular chapter 10 „categorisation of HDD drillings“, is still in progress.



There is still an intensive need for coordination. It is planned to present a draft for the new edition of the guidelines including chapter 10 by the end of August. All in all, it should be noted that the revision of the guidelines will still take some time. The completion of the 5th edition is currently not expected before the beginning of 2021 - also due to corona reasons.

E. Fengler, DCA

Task group 4
Digitisation

As described in the last issue, task group 4, „Digitisation“, started work with its first meeting at the end of last year.

With the participation of rig manufacturers, users and engineering offices, a DCA recommendation on this topic is to be worked out.

The subject of the recommendation is not only a compilation of all relevant process data but also standards for their transmission and recording. At the start of the task group the participants discussed the state of the art as well as expectations of users and manufacturers with regard to future developments.
In the last months - due to corona reasons - unfortunately no further meeting could take place. This will be made up for in the second half of the year.

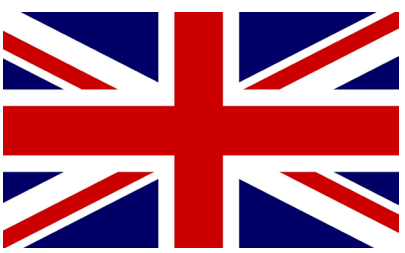
Dr. T. Jaguttis, DCA

Scott Stone becomes representative of the DCA for United Kingdom

Four new regular members from the island

Since the beginning of the year, the interests of the DCA are now represented in the United Kingdom by board member Scott Stone from the company Visser & Smit Hanab b.v. as the new DCA representative. Scott Stone began his career in 1988 in the field of HDD technology at Visser & Smit Reading & Bates (VSRB), where he worked as an engineer in the field of control technology for HDD drilling. In 1991 he became project manager for HDD Maxi Rigs at VSRB before joining Visser & Smit Hanab b.v. in 1995. From 1995 to 2015 he was involved in major HDD projects all over the world. In 2015 Scott Stone moved from the operational to the commercial area at Visser & Smit Hanab b.v. with a strong focus on the UK market (Volker Trenchless Solutions). Since the Members' Meeting 2019 Scott Stone has been an assessor on the board of the DCA.

Scott Stone started his activities in the UK at the beginning of the year and was immediately successful in recruiting members. With the companies Eco Drill England Ltd., Markey Drilling Ltd., Mc Cormack Drilling and Nicol of Skene Ltd. he was able to attract four new regular members from the island for the DCA. Further companies have expressed their interest.



The DCA as the European association of the HDD industry has already appointed two more representatives for Italy and Spain to support its presence in the individual European countries. Renzo Chirulli from Vermeer, Application Specialist Pipeline - Europe, Middle East & Africa and Brian Jorgensen from Ditch Witch-EMEA, European Sales Manager, support the work of the DCA very successfully in Southern Europe.

It is the task of the DCA representatives to act as contact persons of the association for the respective domestic HDD industry, to establish contacts and to communicate the goals of the association. In addition, the focus is on the support of the member companies and the recruitment of new members, both with the executing companies and with clients and the supplier industry. In this way, they support the work of the board in the sense of the association's objectives and help to make the DCA well-known in Europe.

Furthermore, the DCA is still striving to install DCA representatives in other European countries. If you are interested please contact the office in Aachen.

A. Quante, DCA

Further DCA-representatives

DCA-Representative Italy

Renzo Chirulli

Applications Specialist-Pipeline-Europe, Middle East & Afrika

Vermeer

E-Mail:
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DCA-Representative Spain

Brian Jorgensen

European Sales Manager

Ditch Witch-EMEA

E-Mail:
b.jorgensen@dca-europe.org

Disposal of driling mud in Germany

From a legal point of view

Sometimes you would like to hold on to the old times: Back then everything was simpler, less problematic, cheaper - or all of them together. This applies in the private sector as well as in the business environment. Some innovations turn out to be improvements in retrospect, others are at least accepted at some point.

As far as the disposal of drilling mud is concerned, we are perhaps just on the way to acceptance in Germany. An improvement is certainly only seen by those who, in the interests of environmental protection, consider it necessary that things cannot or must not take place today as they did five or ten years ago. For there can be no more spreading of drilling mud on agricultural land today for legal reasons. By implementing European laws and directives, the government has actually defined clear limits and rules for disposal, but who knows these rules and who really applies them?

But as it is with many things nowadays, the tangle of legal regulations is so extensive and sometimes not easy to understand, so it is not surprising if many people do not know exactly what is right and what is wrong. There are a total of 15 laws and regulations in Germany to be observed in connection with the disposal of drilling mud. The most important are the Kreislaufwirtschaftsgesetz (KrWG), the Abfallverzeichnis (AVV), the Länderarbeitsgemeinschaft Abfall (LAGA), the Deponieverordnung (DepV), the Nachweisverordnung (NachwV) and the Güterkraftverkehrsgesetz (GüKG). However, perhaps the following brief summary of the key legal points can help to reduce uncertainty for the members of the DCA in their day-to-day business and help to avoid potential conflict with the authorities.

Based on the process of proper disposal, the following points will be briefly considered here: AVV number - analysis - transport - disposal/disposal. In addition, the questions will be answered as to why drilling fluid is waste at all and why it may no longer be spread on agricultural land - and this applies nationwide and not only in individual federal states such as Lower Saxony in Germany.

So: Why is the drilling mud produced actually waste? Essentially, this results from the Kreislaufwirtschaftsgesetz. Among other things, § 3 states that it is waste if a substance can no longer be used for its original purpose and the owner therefore wishes to dispose of it. Since the drilling mud is no longer usable after its use - either after a single use or after recycling on the construction site - the drilling mud produced must be disposed of. For disposal, waste must be marked with a six-digit waste code number (AVV-Number).

But what's the right AVV-Number for drilling mud? Most of the federal states in Germany make use here of the history of AVV-Number 010504 (Drilling mud from fresh water wells) or 010508 (chloride-containing drilling mud). Legal experts take the view that the correct AVV Number is actually 161002 (aqueous liquid waste), but this will probably take a few more years before it changes nationwide. Because the actual numbers with the beginning „01“ belong to the chapter which deals with the waste from the exploitation of mineral resources. In the past, this was certainly correct when searching for natural gas or oil deposits, but today it is no longer relevant for HDD drilling and similar construction measures.

In the meantime, however, the opinion has at least gained acceptance among the authorities that a certificate of disposal based on the AVV numbers 170504 (soil and stones) or 170506 (dredged material) is not a correct proof of the disposal of the drilling mud. On the one hand, this can be any kind of excavated material, but it need not have anything to do with the actual construction project and the drilling mud. On the other hand, it also shows that a disposal company has been chosen which is not allowed to accept drilling mud. And this can legally lead to a considerable problem when an inspection is carried out - which can also take place after 1 or 2 years after the end of the construction project.

Thus, according to the current view of the authorities, there is at least nothing wrong with the AVV numbers 010504 and 010508. These numbers are so-called mirror entries in the nationwide uniform AVV catalogue. This means that in both cases they can be either non-hazardous or hazardous waste. This can only be conclusively assessed by sampling and analysis of the drilling mud. This is important both for transport and for later disposal, as only after the results of the analysis have been presented can a final decision be made as to which disposal method is the correct one and what may need to be taken into account during transport. It is recommended to order the analysis immediately according to LAGA Boden and the landfill regulations. In this way, all the important parameters required to classify and declare the waste correctly and to dispose of it in a legally compliant manner are examined.

While the transport of non-hazardous waste is only subject to the general laws and regulations for road haulage and waste transport, the electronic records procedure is additionally prescribed for hazardous waste. This is also the reason why the drilling mud should not be transported away from the construction site before the analysis results are available, as the electronic verification procedure cannot be created retrospectively. In general, the

client and drilling company should always ensure that the carrier also complies with all legal regulations. These are in particular: permission to transport waste, presentation of an EU licence from the company, drivers with a valid driving licence for commercial road haulage (CE, 95) on driver card and compliance with the toll obligation for vehicles over 7.5 tonnes. If a carrier fails to comply with these regulations, this can lead to problems for the client and the drilling company - even in the follow-up to an inspection.

The disposal of the drilling mud must be carried out at approved landfills and facilities, as only then can a correct weighing note with the correct AVV number be issued. Here the analysis result must also be taken into account, as the criteria for the acceptance of the drilling mud from the respective plant or landfill from the approval are legally binding.

In some districts, the obligation to tender must also be observed. This means that before disposal, the relevant office must first be contacted, which then determines the disposal route. As a rule, there is no obligation to tender if the waste is not disposed of but recycled. This means that the client and/or the drilling company do not have to tender the drilling mud in the case of recycling and therefore the costs (as a rule the authority will estimate a surcharge of EUR 3.00 to EUR 5.00 per tonne) are not incurred.

But why should the client and the drilling company pay attention in Germany to all these laws and regulations? Quite simply because they are fully liable for everything that happens to the drilling mud as waste! The client as the so-called first producer, the drilling company as the second producer. And these producer obligations cannot be passed on either, as is sometimes argued, according to the motto: „If we put it in the tender, we'll be rid of the problem".

The only way to be legally certain is to hire a certified waste management company. Here, at least in the context of due diligence, the right path has been taken. Due to the conditions and annual inspections, it can be assumed that this company knows its trade and will carry out the correct disposal on the basis of its proven technical suitability. It is also guaranteed that all licences for transport are available and that there is sufficient insurance cover. Of course, this only applies to those specialist disposal companies that are certified for collection and transport, all others do not have to have this certificate.

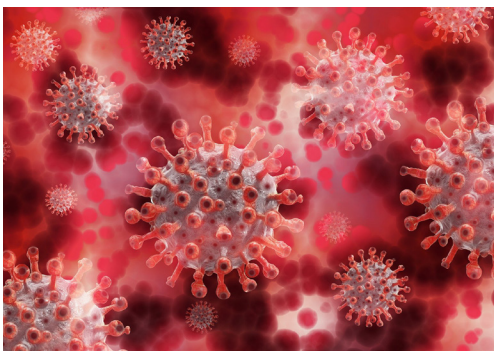
The procedure described here shows that the drilling mud may no longer be spread on agricultural land in Germany in compliance with the above-mentioned regulations. Taking into account the Bundesbodenschutzgesetz and other regulations such as the Düngemittelverordnung, it is clear that there is no leeway or grey area here either.

S. Prenger, Hermann Kahnenbley GmbH & Co. KG

DCA at times of Corona

25th anniversary celebration, Annual Congress, Members‘ Meeting and Oldenburg Pipe Forum postponed

The massive spread of the corona virus and the consequences associated with it are omnipresent - in Germany, Europe and worldwide. Unfortunately, the DCA cannot escape this.



For this reason, after the outbreak of the pandemic at the end of March, the anniversary event of the DCA, which was to take place in Brussels on 07.05.2020, was already cancelled. The event will be made up for at a later date.

Due to the continuing spread of the corona virus (COVID 19) and the restrictions associated with it, the board of the DCA decided at its last meeting on 24.06.2020 **to unfortunately cancel the 25th annual congress of the DCA in Bonn, Königswinter next October**. The recent events due to the quasi 2nd lockdown in parts of Germany as well as the still existing restrictions in Europe and the USA have induced the board to make this decision at this point in time.

The DCA annual congress has been the annual meeting place of the HDD industry since the association was founded. The core of the event is, as already mentioned by President Jorn Stoelinga in the foreword, besides the ambitious conference program, especially the personal exchange of experiences among the members from Europe and worldwide. The board did not see the possibility that the event could take place in a more or less usual way. In addition, information was available from members that some companies, especially from abroad, had already decided to waive participation in association events altogether due to the economic effects in the second half of the year.
We very much regret this cancellation, but we ask for your understanding at this point.

A new date has already been set for the **next annual congress**. It will take place on **06.-08.10.2021** under the already presented topic „From Pipe to Cable“ at the same place in Bonn, Königswinter. **Please note the date!**

Members‘ Meeting and Oldenburg Pipe Forum 2021

The **Oldenburg Pipe Forum 2021 was postponed to 15-16.04.2021** a few weeks ago for corona reasons. During the times of the corona pandemic, the organizers determined after thorough consideration that it would not be possible to hold the event in the rooms of the Jade University in February of the coming year. As a result, it was decided to move the 35th Oldenburg Pipe Forum to the **Weser-Ems-Halls**, which was also accompanied by the postponement of the event mentioned above.

The Drilling Contractors Association (DCA) has been closely associated with the forum in Oldenburg since its foundation. Thus, the DCA is one of the exhibitors of the early years in Oldenburg. In addition, holding the Members‘ Meeting on the day before the Forum has proven its worth over the last two decades. Taking into account the requirements of the association‘s statutes, which provide for an annual meeting without, however, setting a date for it, the board has therefore decided to postpone the **Members‘ Meeting 2021 to April 14, 2021 in the usual place. Please note the date!**

D. Quante, DCA

Conference venue in Oldenburg

Honoring 20 years of membership

Continued positive development of membership figures

The DCA had 119 member companies at the end of the last association fiscal year. Long-standing members were honoured at this year's Members' Meeting in Oldenburg in February. For 20 years of membership in the DCA the company representatives of the companies received:

- Beermann Bohrtechnik GmbH
- Herrenknecht AG
- Moll-prd GmbH & Co. KG und
- Prime Drilling GmbH

besides congratulations from the DCA president Jorn Stoelinga a framed certificate was presented.

First members from Sweden and Canada

Looking back on the first half of 2020, nine more companies have already been admitted to the association. The first DCA members from Canada and Sweden were welcomed. CCI Solutions, a planning company from Cochrane, Alberta, Canada, joined the association. The European branch is managed by our former board member Denis Pellerin from France.

The first member from Sweden is the consulting company Johan Lundberg Compentum AB from Uppsala. Furthermore, there is a lot of interest from the UK, not least due to the activities of the new UK representative Scott Stone from Visser & Smith Hanab b.v.

The drilling companies Markey Drilling Ltd., McCormack Drilling, Eco-Drill England Ltd. and Nicol of Skene Ltd. have also joined the association.

From Switzerland, the drilling company Schenk AG Heldswil has joined the DCA. The German companies Giftge Consult GmbH, Sirius-ES Deutschland GmbH and TransnetBW GmbH were also welcomed as associate members.

Welcome to the DCA!

Thus a total of 125 companies are organized in the DCA, which are divided into 46 regular and 79 associate members.

A. Quante, DCA

The DCA family

New DCA members introduce themselves

Canada and Sweden newly represented

CCI Solutions

Since 2004, CCI has provided highly technical award-winning services to the oil and gas, municipal and electrical sectors including:

- Pipeline and trenchless engineering solutions
- Shore approach EPC
- Environmental services
- Geotechnical expertise
- Construction management

Collaboration. Commitment. Innovation.

With involvement in more than 14 000 completed projects around the globe, we capitalize on our diverse experiences to bring our clients original ideas and optimized trenchless solutions. CCI has established itself as the "go-to" trenchless engineering company, with 190 highly experienced and qualified trenchless, pipeline, geotechnical and environmental specialists working together as a team to bring an integrated and complementary approach to each project. CCI's multi-disciplinary team focuses on the overall project with engineers, geologist, geotechnical specialists, construction experts, project managers, geomatics and GIS specialists.

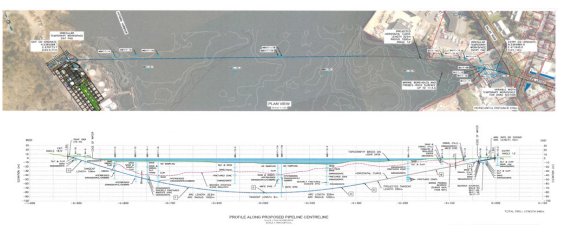


Figure 1: Technical HDD Drawing Sample 1

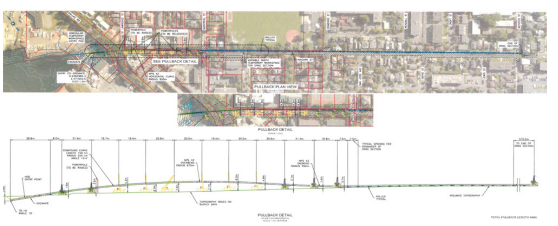


Figure 2: Technical HDD Drawing Sample 2

By using proven engineering design processes, with our in-house team of professionals, CCI's 360-degree approach and our commitment to collaborate and innovate continues to be the catalyst to the products and services we provide. This approach has proven to be attractive for organizations that seek not only a successful, cost effective project, but a proven method to build and continue their goal of performance with stakeholders. We have established ourselves as a driving force in the continued advancement of trenchless pipeline systems to tackle difficult crossings, incorporating pipeline and trenchless techniques to complete full projects and using our Pipe 360 process to incorporate all our resources to produce superior results for our clients.

For the last 15 years CCI continues to be at the forefront of new innovations and technologies for the entire industry and have made it part of our core business. CCI's mandate and dedication to ask "why" has proven to be the catalyst for this continued advancement and development of our industry.

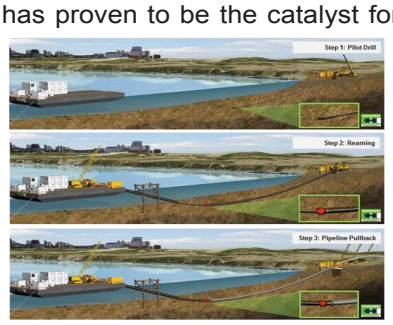


Figure 3: Landfall Illustration

Figure 4: Outfall Installation

CCI Inc., Edmonton: +1 780 784 1990 • Calgary: +1 403 932 0560
Vancouver: +1 604 500 0909 • Houston: +1 832 210 1030 • Paris: +33 607 108 726
www.ccisolutions.ca • info@cciandassociates.com

Johan Lundberg Compentum AB

The consulting company Johan Lundberg AB was founded in Uppsala, Sweden in 2009. Founder Johan Lundberg has many years' experience from the industry in the role of project manager, teacher, author and visionary. The independent company specializes in trenchless pipeline- and cable construction and rehabilitation, with projects mainly within the Swedish market, though happily engaging in projects all around Scandinavia.
Trenchless technology is used only in a fraction of the projects where the technology could provide advantages. This despite the fact that most workers in the field of pipeline- and cable construction and maintenance are aware of these different advantages. The reason for this, in many cases, leads back to uncertainty. Choosing traditional methods feels safer. The heart of the mission of Johan Lundberg AB is to counter this uncertainty with knowledge about the technology. Thanks to our independence, we have reached great success.

Consulting services
While trenchless technology offers many advantages, the technology is more complex. Initially, this means a somewhat higher degree of uncertainty than conventional trenching. As independent consultants we help network owners, consultants and contractors to make the most of the technology with the lowest possible risk. A thoroughly tested process along with a combined sum of 170 years of experience in the team, makes us able to, already in the pre-study phase, replace assumptions with facts, and thus eliminate uncertainty.

Our consultants find the best possible location for the network and help the client find the solution which provides the best combination of certainty and economy. As the project proceeds, we follow our client in each step from planning and procurement to execution, documentation and evaluation, keeping it within time-plan and budget. We also help the client with framework- and crossing agreements when needed.

Courses and tools
Compared to conventional trenching, trenchless projects need more extensive planning to be successful. Our courses provide network owners and consultants with an understanding of the advantages of trenchless solutions, the knowledge needed to identify projects where trenchless is the best solution, and how to's for seeing the project through.

Our handbooks and hands-on planning tool, NoDig platform, provide information and support in trenchless projects. We also continuously contribute to the development of general industry guidelines, e.g. AMA construction and instructions for the Swedish Transport Administration.

Through the first 10 years, Johan Lundberg AB has followed a stable growth curve, establishing offices in other parts of Sweden as well as in Finland. The Finland company was established together with Mr. Jukka Huusko who has more than 30 years' experience with No-Dig business worldwide, including living in Germany several years.
Thanks to our independence, we simply see it as our task to provide our client with a high-quality solution, which stays within the limits of both time-plan and budget. Our returning clients is the best proof of their appreciation for the way we work.

www.johanlundberg.com
www.johanlundberg.se
www.johanlundberg.fi

Markey Drilling Limited

Company Profile Markey Drilling LTD

Markey Drilling Limited is a family run business based in Northern Ireland. The company was established in 2004 by brothers Ciaran and Sean Markey. Combined we have over 40 years of experience in the areas of Horizontal Directional Drilling. We are supported by a skilled and motivated workforce dedicated to providing an excellent quality service, ensuring clients have their projects delivered on time and within budget. Every project we undertake is managed with a “hands on” Director involvement approach from initiation to completion.

From conducting works throughout the UK and Ireland with plans in motion to expand through Europe, Markey Drilling Ltd have gained invaluable experience and knowledge that helps us to expertly evaluate, plan and deliver any type of HDD project, in any ground formation.
Our consultative and collaborative approach on design, engineering and construction of trenchless solutions means that together we can navigate each project and its unique challenges and conditions. We repeatedly demonstrate value and commitment by focusing on our client’s key requirements straight from the outset. We strive for innovation at every step.

Markey Drilling Ltd undertake drilling projects with a service that is second to none, whilst maintaining a constant commitment to Health, Safety and the Environment. During previous projects, we have carried out works beneath major infrastructure including, Railways, Roads, Runways, Motorways, Rivers and Canals, connecting vital utilities such as Gas, Electric, Water and Fibre Optic.

Within our fleet we have HDD Rigs ranging from 6 ton pull capacity and up to 120 ton pull capacity. Each of our rigs are wireline/ Gyro steering tool ready.

We believe in the integrity and rigor of the certification process, that’s why its our policy to achieve accreditation for our services wherever possible. We are currently ISO 14001, ISO 9001, OHSAS 18001 and SSIP accredited.

Markey Drilling Ltd are proud to now be a member of the DCA and are looking forward to future growth throughout the UK and Europe within the trenchless installation sector.

Visit our website www.markeydrilling.com to enquire about our services or to find out more about what we can do for you and your next HDD project.

Schenk AG Heldswil

With Passion for Horizontal Directional Drilling (HDD) Technology

The underground construction company founded by Ernst Schenk in 1969 has specialized in laying pipe for half a century. In 1989, Horizontal Drilling Technology (HDD) was added, which is the main pillar of the company today.

HDD
From the beginning, the second generation has had a decisive influence on the development in the Horizontal Directional Drilling technology. Solutions for tasks that seemed „very difficult“ back in time, are being developed actively and with ease. For a long time now, the company has not only carried out Horizontal Directional Drilling work but has even further developed this technology using its own equipment. Numerous innovations were being developed as a result of this. Today Schenk AG employs over 80 people. The use of the HDD systems range from house-connection technology to large-scale drilling technology (25 KN – 2’500 KN). The HDD measures are carried out in the complex Swiss geology and hard rock. The approximately 20 plants are used all over Switzerland.

Pipeline Bursting. Milling
Schenk AG also offers pipeline bursting. Trenching and the use of rock cutting wheels are also among our competencies.

We offer complete solutions for track construction and HDD projects: from feasibility studies, topography surveys and drilling line planning, to easement contracts and all the way up to obtaining transmission rights and negotiations with authorities. The drilling tools and machines are maintained and reconditioned for future use in our own workshop and locksmith‘s shop.

Refurbishing Pipes
Pipe Bursting is part of the services of Schenk AG and is carried out by our company TPS. TPS has recently become part of Schenk AG. With several systems (400KN-1900KN), a highly motivated team can offer our customers a speedy restoration of their supply and disposal lines.

Underground Construction
The company has its roots in this field, and this is the foundation on which it was originally built on. This field continues to be regionally operated and also support the HDD and pipeline activities wherever needed.

Schenk AG Heldswil, Neubuch 5, CH-9126 Heldswil, +41 (0)716423742 www.schenkag.com, info@schenkag.com

TPS AG, Neubuch 5, CH-9216 Heldswil, +41 (0)715112070 www.tpsag.ch

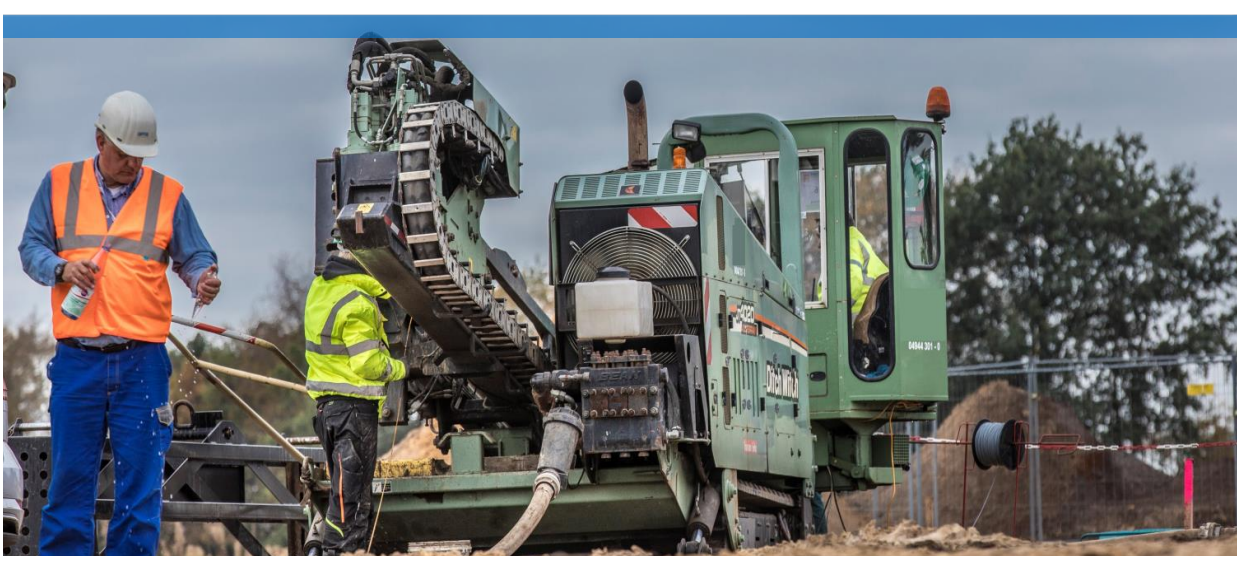
Giftge Consult

GIFTGE
CONSULT

HDD-design and supervision

- for 20 years
- more than 2500 drilling
- dimension: DN 60 – DN 1.000
- length: 20 m - > 1.000 m
- Supervisory control according to DVGW Worksheet GW 329

www.giftgeconsult.de



Sirius-ES Deutschland GmbH

The company has long stood for an extensive range of drilling fluids and services for all deep drilling technology projects. It has become a market leader in Central Europe for the mud service for deep geothermal drilling. Sirius-ES stands for an efficient organizational structure and competent service. The newly established HDD business line is offering the full package of products and services for drilling applications for Horizontal Directional Drilling (HDD). For this purpose, the team was strengthened with internationally experienced and technologically savvy employees.

The range of HDD services includes bentonites, other drilling fluid additive, mud service with trained mud engineers in accordance with current guidelines, as well as rental and operation of solids control technology. Replacement shaker screens are kept in stock for market-standard shakers. The equipment inventory includes the complete range of technology for conditioning drilling fluids and dewatering of drilling waste.

With the certifications according to SCC and ISO 9001, the quality and safety management is regularly monitored and confirmed. The products offered comply with international standards and state of the art.

The Sirius-ES HDD team is happy to be there for you and the organization stands for optimal accessibility. The supply of HDD products is coordinated from the Celle office. In doing so, the branches in Austria and Romania are actively supporting storage and logistics. Dealers and outlying warehouses are condensing the distribution network.

Thanks to a wide range of experience, Sirius-ES can provide effective technical support in solving your tasks. This includes analysis and evaluation of soil investigation reports, the development of mud programs and competent mud engineering and solids control service on drilling sites. With pleasure we train and instruct customer staff in the use of our products.

Sirius-ES Deutschland GmbH, +49-5141-2995503, office@sirius-es.com

Announcements 2020/2021

Seminars and courses

Site manager seminar at Tracto-Technik

The advanced training seminar for HDD site managers at the company Tracto-Technik GmbH & Co. KG in Lennestadt had to be postponed from 18.03.2020 as planned to 25.11.2020 due to the requirements in times of Corona. A presence seminar will be held there on the subject of „Subsoil description for HDD projects - application of DIN 18324“ in compliance with the hygiene protection regulations.

The seminar, which has been held in cooperation with DCA and the companies Moll-prd and AMC for several years, is aimed at owners and managing directors of special construction companies and drilling contractors, at site managers and HDD project managers who already have experience in the calculation, planning, sequence and execution of HDD projects.

The application of DIN 18324 is presented with regard to the importance of subsoil exploration for own projects and its use in project planning. With the introduction of this DIN, which replaces the soil classes by homogeneous areas, the requirements for soil investigation in the run-up to a project have increased.

The training seminar will be held in German. Further information is available at **www.tracto-technik.de**. Please register via: **training@TRACTO-Technik.de**. Already registered participants will be informed separately by the organizer.

Further training according to GW 329

10.12.2020 Schlosshotel Wilhelmshöhe, Kassel

The seminar is primarily aimed at technical supervisors who have an examination certificate at training levels A and B. Furthermore, it also serves as a suitable further training event for technical personnel, site managers and supervisors who are active in the field of horizontal directional drilling.

Note: Please register for the advanced training seminar and the courses at www.brbv.de

DCA-Members‘ Forum bilingual

The next Members‘ Forum HDD-Technik, which is exclusively reserved for DCA members, will take place on **21.01.2021 again in Aachen**. Due to the very positive development of the event and the fact that a number of requests from abroad to hold the forum also in English, the board has decided to hold the event next year in parallel in **two linguistically separate groups**, analogous to the workshops at the annual congress. Thus, on 21.01.2021 there will be one German and one English-speaking event.

The Members‘ Forum will deal with the topic „Ground Parameters for HDD“. The topic should be discussed first in Workshop 1 at the annual congress in Bonn/Königswinter. Due to the cancellation of the congress caused by the corona, the topic has now been postponed to the Members‘ Forum 2021. The program and the necessary registration documents will be sent to the members after the summer break. We hope that this event can take place with a local presence on your part!

HDD courses in the Netherlands

Advance notice for 2021

18.- 22. January 2021
HDD 1: For small HDD projects ≤ 40 t

25.- 29. January 2021
HDD 2: For large and complex HDD projects > 40 t

Please register under www.deltares.nl

Courses according to GW 329

The training courses for technical supervision, site manager and machine operator for horizontal directional drilling according to DVGW worksheet GW 329 will again be held at the Bohrmeisterschule Celle in 2020.

From January 2021 onward

Note: Please register for the advanced training seminar and the courses at www.brbv.de

Verband Güteschutz Horizontalbohrungen e.V.
Drilling Contractors Association (DCA Europe)
Assosiation des Entrepreneurs de Forage Dririgé

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