

VersaDrill
CANADA

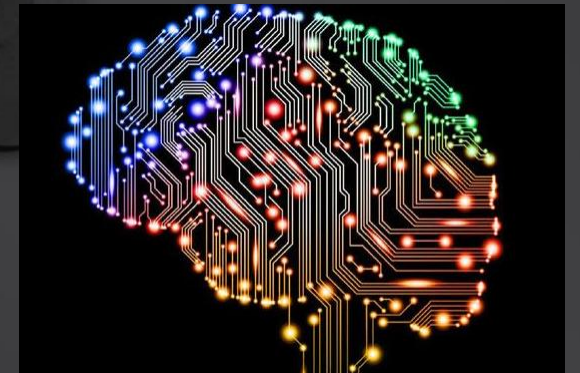


Inner Tube Puller
Health and Safety Innovation

The way VersaDrill look at Innovation.

- In the mining business, the large company are investing in multiple axes :

- Automatization
- Control centre
- IA
- Etc...



Sources images: <http://magazine.cim.org/fr/technologie/the-evolution-of-autonomy/> , page consultée le 8 mars 2018.

<http://www.lesaffaires.com/dossier/ia-comment-le-quebec-prend-part-a-la-revolution/thales-installe-son-centre-mondial-d-intelligence-artificielle-a-montreal/597734>,page consultée le 8 mars 2018.

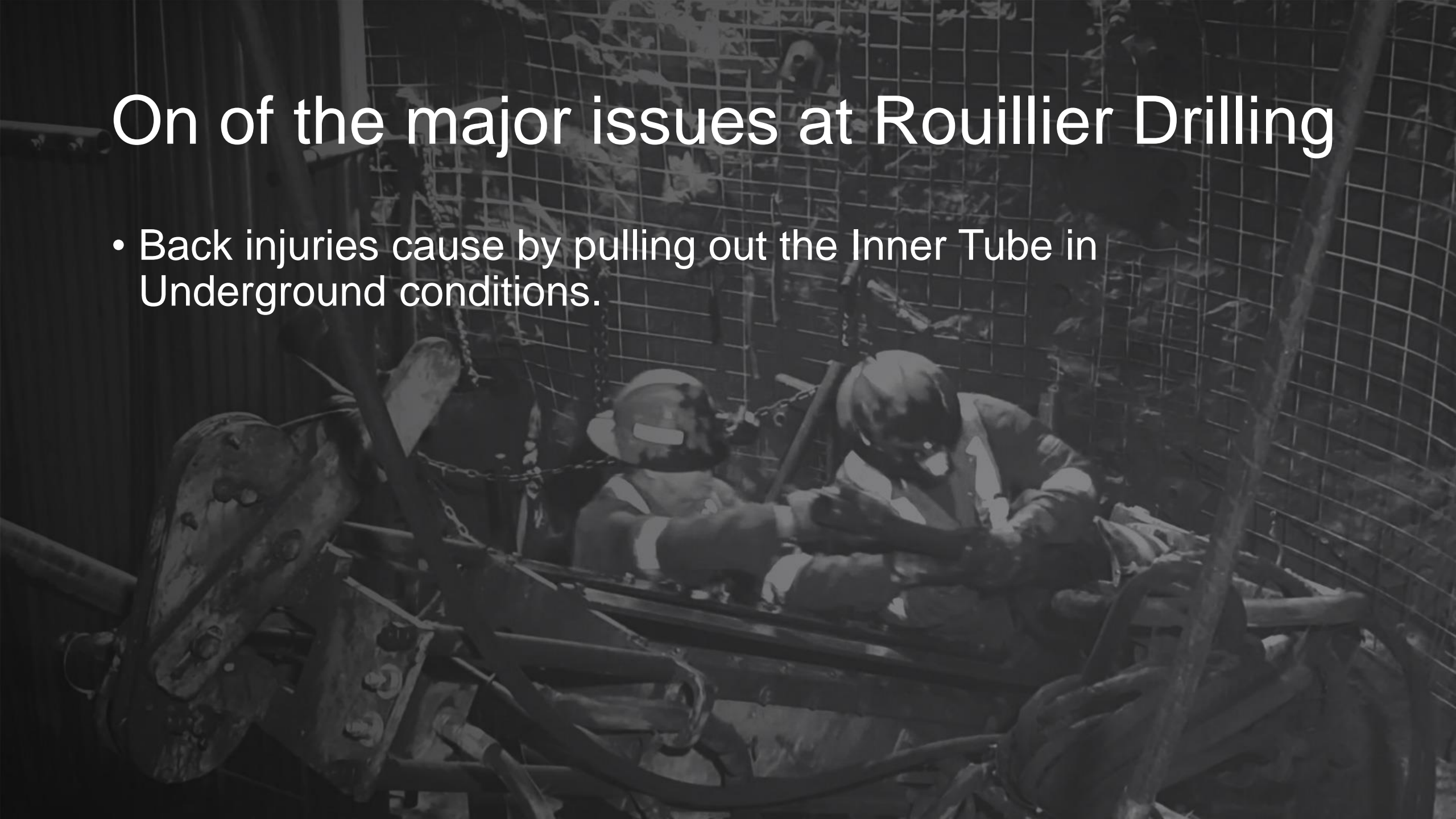
For Us



- We are looking at creating products with an added value for the diamond drilling contractor, that will give you advantages and solve some of your issues.
- Mainly on the following themes :
 - Work accidents
 - Shortage of manpower

On of the major issues at Rouillier Drilling

- Back injuries cause by pulling out the Inner Tube in Underground conditions.





Rouillier Drilling issues

- One of the companies forman came up with the idea of putting rollers to extract the tube, so instead pulling out the tube by hand, they would be rolled out.
 - In presented a few challenges :
 - The tube his fragile and cannot be deformed (no high lateral pressure can by apply to it).
 - The rollers must be highly non slip (you don't want to drop the inner tube in the hole without the backend)
- After many tries, Rouillier still add issues with the invention has the rollers they were trying were always slipping.

RIDD, VersaDrill and Rouillier Drilling

- At this point, RIDD was involved with VersaDrill to solve the remaining issues.
- RIDD was already working on a new family of non-slipping coating that we have applied to the rollers.





Case Study



- No statistic on back injuries improvement yet, but all the drillers who have worked with the inner tube puller don't want to go back to work without.
- Agnico Eagle Goldex Mine has requested to have every drill equip with the technologies.
- The Rouillier Drilling team soon realized they add another advantage with the Inner Tube Puller, they now work with 15 metres core barrel when the ground his competent.

Numbers

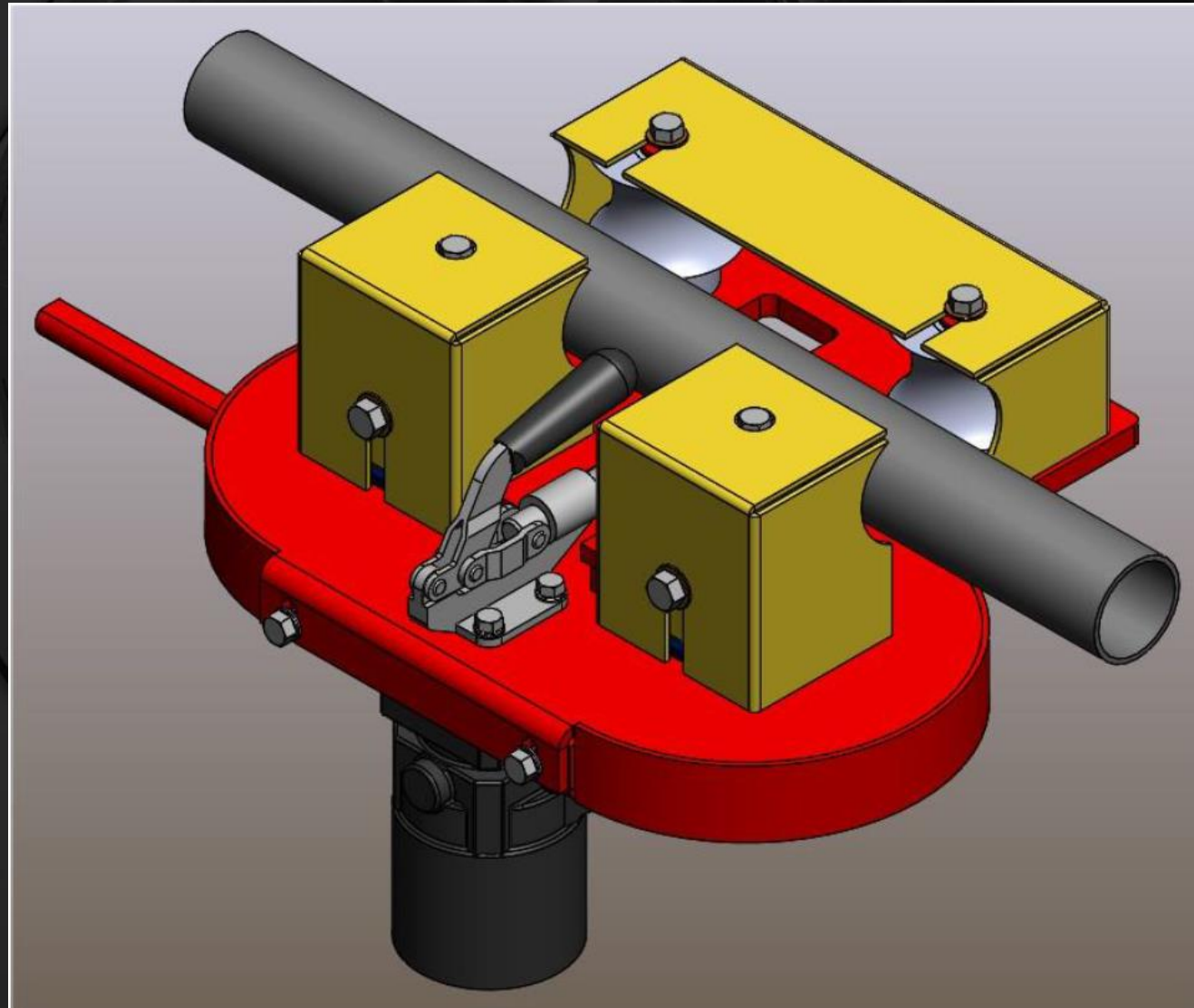
- See Excel File

Depth	Addition meters with drilling with 15m core barrel 50% of the time	UG yearly revenue improvement by drill when going from 3m to 15m core barrel 50% of the time	Net profit improvement (included inner tube puller cost)	Surface revenue improvement from 6 meters core barrel to 15meters 50% of the time.	Net profit improvement (included inner tube puller cost)
100	8171,8	\$302 029,73	\$78 608,92	\$227 656,00	\$56 296,80
200	8335,6	\$317 336,29	\$83 200,89	\$313 456,00	\$82 036,80
300	8171,8	\$325 074,20	\$85 522,26	\$340 704,00	\$90 211,20
500	7534,8	\$320 002,96	\$84 000,89	\$405 600,00	\$109 680,00
1000	5951,4	\$364 225,68	\$97 267,70	\$400 608,00	\$108 182,40

Inner Tube
Puller on a
Surface
Drill.



For more Safety



VersaDrill CANADA



MADE BY DRILLERS FOR DRILLERS

