



A LARGE RAILWAY MAINTENANCE DEPOT IN THE HEART OF A REGIONAL PROVINCIAL CITY WAS EARMARKED FOR REDEVELOPMENT.

For over three centuries, the site had become contaminated with diesel, oil and grease, and heavy metals. Before construction could proceed, the developer wanted Virotec to urgently decontaminate around 50,000 cubic meters of contaminated soil.

TIME IS OF THE ESSENCE

Standard bioremediation of hydrocarbon contaminated soils takes about 18 months. This was way too slow. The question was asked - what time frame could Virotec do the job in and while you're there, could you also please remove the heavy metals.

The gauntlet had been thrown down to Virotec's reputation as the environmental remediation experts who can do anything.

AN UNFAIR ADVANTAGE

With over 14 years of R&D and successful remediation under our belt, Virotec had an unfair advantage. We had developed a technology that has been used around the world to rapidly break down any hydrocarbons, no matter how heavy or tarry, using a proprietary reagent into which a super bug had been mixed.

How does it work? The hydrocarbon contaminants are rapidly absorbed into the fibres of the reagent where the indigenous microbes (super bug) consume and transform them into simpler compounds. This process continues until all of the hydrocarbons are degraded into carbon dioxide, water and benign organic substances.

It's much cheaper than standard methods of excavating and dumping, incineration, sterilisation and soil washing technologies, but more importantly, the time taken to destroy hydrocarbons in the soil is reduced by at least 50%.

But there was a huge bonus. At the same time as the hydrocarbons are destroyed, Virotec's reagent/super bug mix permanently binds the heavy metals into the soil in non leachable mineral forms. All associations with pH variations were neutralised and all problems solved in one go." to "All pH variations were neutralised and so all of the problems were solved in one go

But there's more. The reagent/super bug mix is environmentally sound, completely safe to handle and apply, leaves surfaces dry and residue free, reduces the amount and hazardous nature of waste, does not leach and offers multiple treatment and disposal options.

WE GET TO WORK

Virotec heaped the soil into 2,000 cubic metre piles which were then aerated by turning them over with an excavator. The piles were then irrigated on a regular basis to optimise the dispersion of the reagent and to provide the microbes with optimal growing conditions.

Composite samples were taken and analysed from both treated and untreated piles at monthly intervals.

HOW GOOD IS THIS

So what happened? Within 90 days – not 18 months, the site remediation was complete. All treatment targets were exceeded and on average, 98.6% of the hydrocarbons had gone.

A HAPPY BUILDER AND DEVELOPER

The builder and developer were ecstatic. Construction started ahead of schedule and our part of the project was well under budget.

As the Site Project Manager said "I've never seen anything like it. These guys can do it all".



FOR YOUR FREE SITE AUDIT, PLEASE CALL VIROTEC TODAY ON 1300 660 460