

Corrosion Modeling Software and Corrosion Prediction Software

Soil-Compass®: Soil Corrosion Prediction and Modeling for Metals and Alloys

The Ultimate Software Solutions to Costly Soil Corrosion

Version 9.20

☆ **Performance** ☆ **Functionality** ☆ **Usability**



Anytime

Anywhere

Any Device

Any OS

No USB dongles

No installation

No Browser Plug-ins

Contact Us for Licensing Details

Why WebCorr | Performance Guarantee | Unparalleled Functionality | Unmatched Usability | Any Device Any OS | Free Training & Support | CorrCompass

Overview of Soil-Compass

Soil corrosion refers to corrosion metals and alloys from exposure to soils. The severity of soil corrosion is determined by many factors, including temperature, moisture and oxygen availability, soil resistivity (soil condition and characteristics), soil type (water drainage capability) and homogeneity (variation in soil type), microbial activities, stray current drainage, and coating type, age, and condition. Soil-Compass is the only device and OS independent software tool on the market for the prediction and modeling of soil corrosion for metals and alloys. Designers, architects, engineers, consultants, operation personnel, maintenance and inspection engineers can quickly determine the corrosion depth, the corrosion rates, and the remaining life of the structure or components, anytime, anywhere, on any device running any OS without the need to install or download anything. Soil-Compass also predicts the soil corrosivity class, the likelihood of microbiologically-influenced corrosion (MIC), DC stray current corrosion and AC corrosion in compliance with ISO 18086. Soil-Compass software models the effects of the following critical factors on soil corrosion:

- Soil type
- Soil temperature
- Soil resistivity
- Soil pH
- Soil moisture content
- Soil chloride content
- Soil carbonate content
- Soil sulfate content
- Soil sulfide content
- Soil redox potential

The outputs of Soil-Compass include the following:

- the soil corrosivity category,
- the corrosion depth,
- the corrosion rate,
- the remaining life or the time-to-perforation,
- the mode of failure,
- likelihood of microbiologically-influenced corrosion (MIC) in the soil environments
- the risk of DC stray current corrosion and AC corrosion.

Figures below show the screen shots of Soil-Compass.

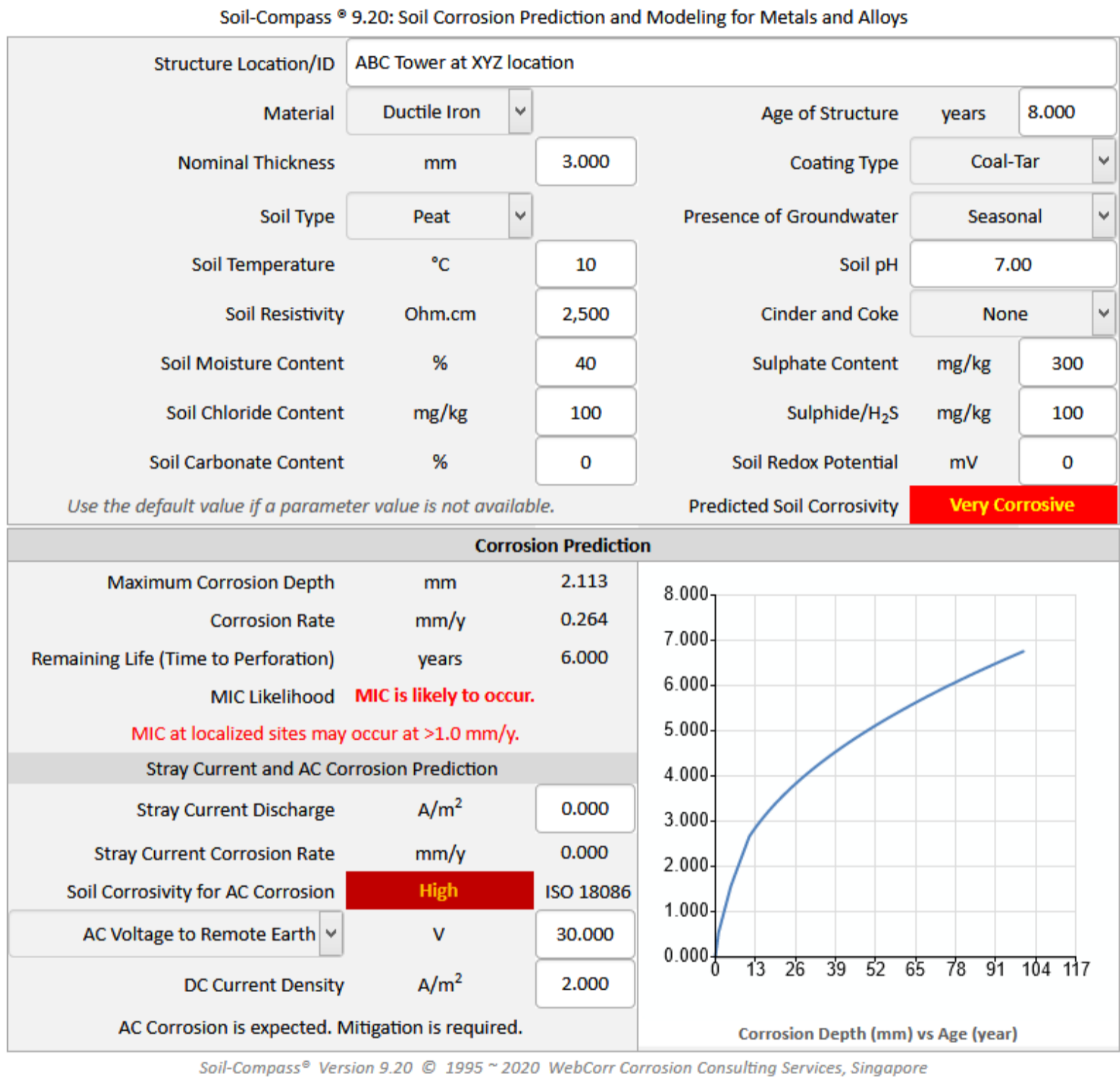


Figure 1 Soil-Compass Predicts the rate of soil corrosion (including MIC) and the remaining life of structures.

Under the specified exposure conditions shown in Figure 1 above, Soil-Compass predicts, the corrosion rate, the accumulated depth of corrosion at the specified age, and the remaining life of the structure. The predictive engine used in Soil-Compass for the modeling and prediction of soil corrosion of metals and alloys complies with applicable international standard ISO 18086 and relevant industry best practices.

Using Soil-Compass is as easy as 1-2-3.

- (1) Select the Material & enter the Age and Thickness of the structure.
- (2) Enter the soil property data.

(3) Review the prediction results.

The following figures show the screen shots of Soil-Compass.

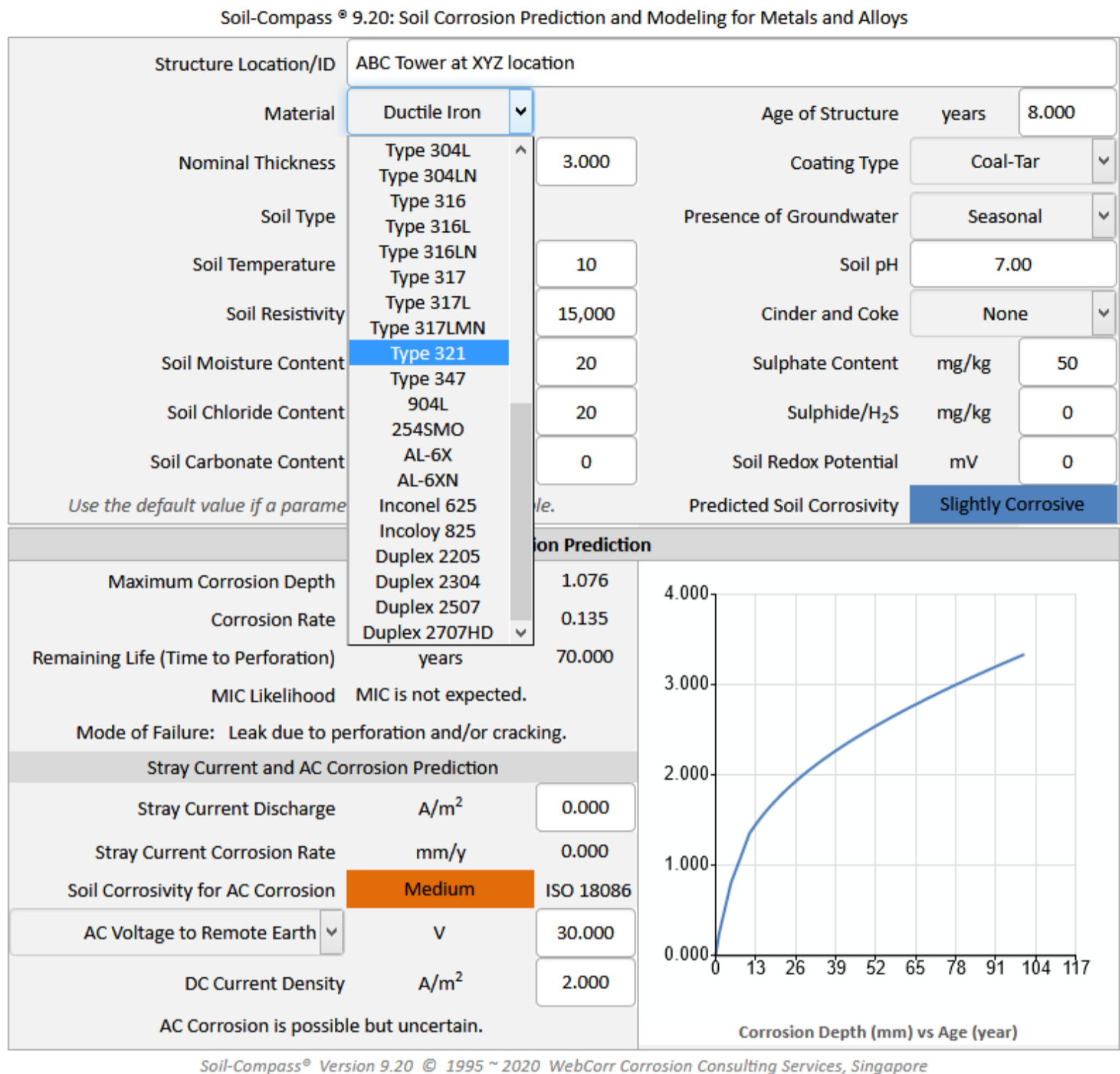


Figure 2 Soil-Compass predicts corrosion of cast irons, steels, stainless steels and alloys exposed to the soil environments.

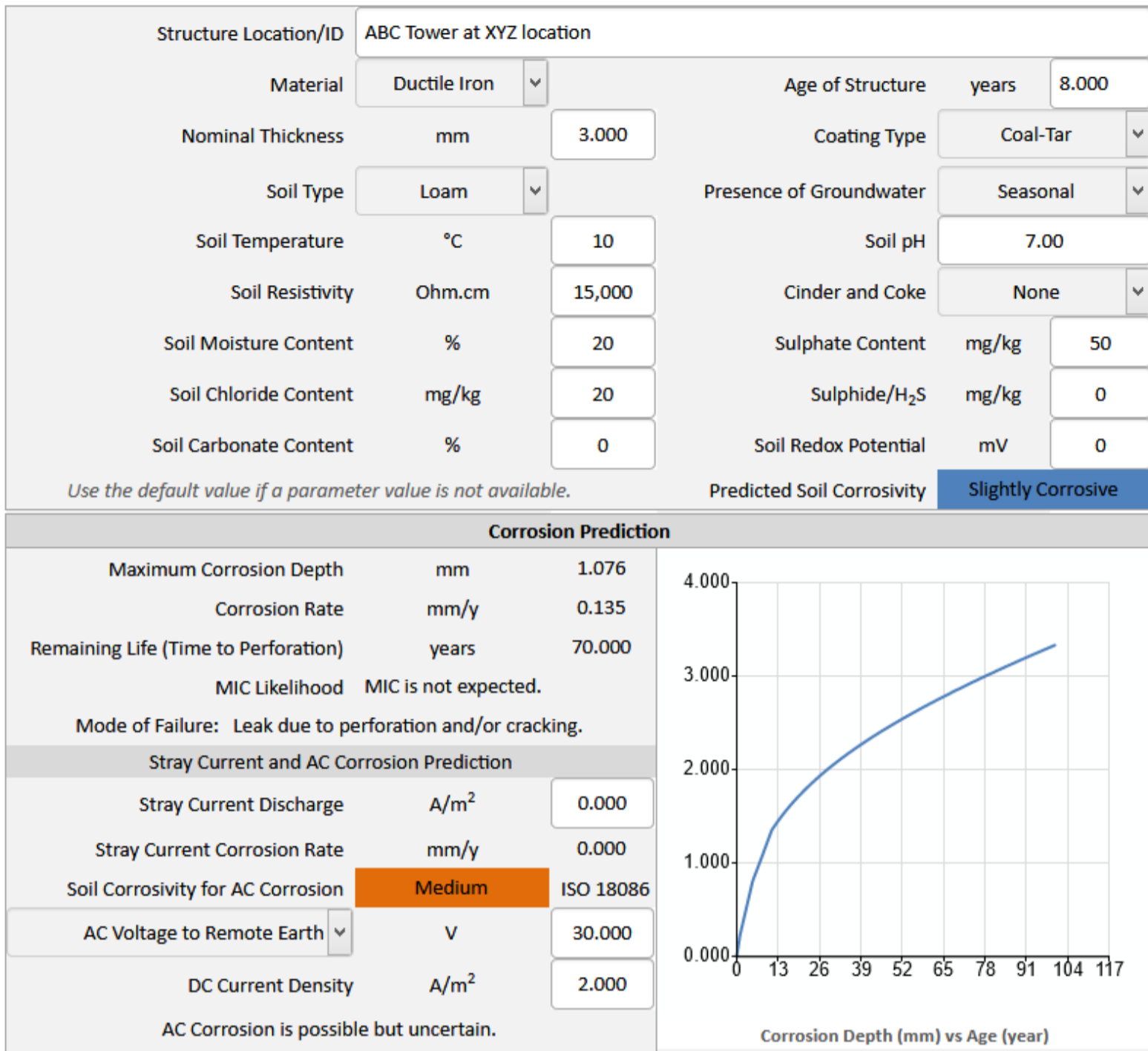
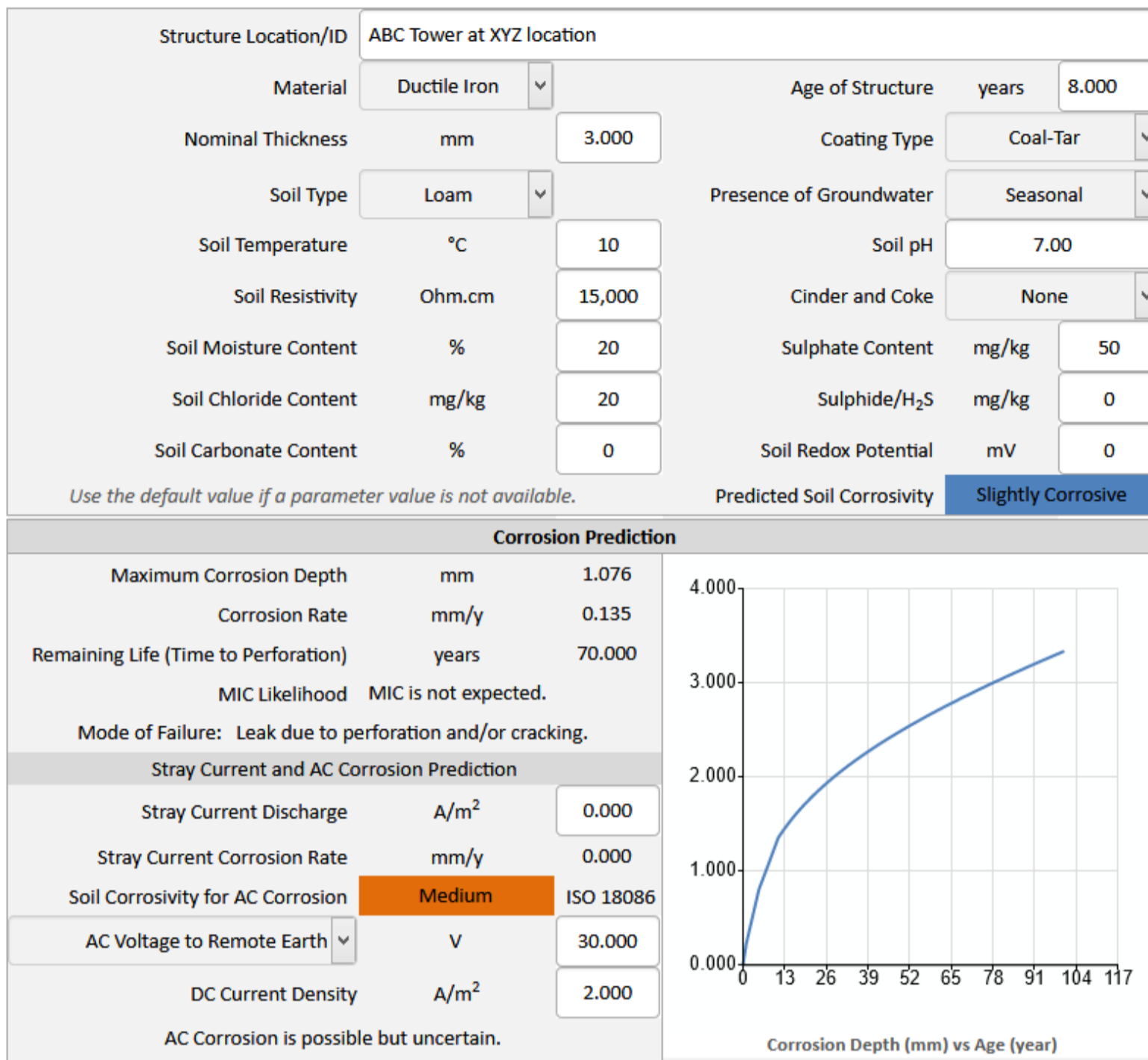


Figure 3 Soil-Compass predicts soil corrosion of cast iron and other metals and alloys.



Soil-Compass® Version 9.20 © 1995 ~ 2020 WebCorr Corrosion Consulting Services, Singapore

Figure 4 Soil-Compass predicts soil corrosion, soil corrosivity, stray current and AC corrosion.

Soil-Compass models and predicts soil corrosion of metals and alloys including commonly used aluminum alloys, copper, zinc, cast irons, steel and galvanized steel, stainless steels and duplex steels. Following is the list of metals and alloys included in Soil-Compass software:

Al 1100
 Al 2017
 Al 2024
 Al 5052
 Al 6053
 Cast Iron
 Ductile Iron
 Open Hearth Iron
 Wrought Iron
 Steel
 Galvanized Steel
 Copper
 Lead
 Zinc
 Type 410
 Type 430

Type 444
Type 446
Type 304
Type 304L
Type 304LN
Type 316
Type 316L
Type 316LN
Type 317
Type 317L
Type 317LMN
Type 321
Type 347
904L
SMO254
AL-6X
AL-6XN
Inconel 625
Incoloy 825
Duplex 2205
Duplex 2304
Duplex 2507
Duplex 2707HD

The powerful applications of Soil-Compass are truly unlimited in engineering design, corrosion prediction and corrosion modeling, materials selection, and remaining life estimation of structures and components buried in the soil environments.

[Click here to contact us for licensing details and experience the power of Soil-Compass.](#)

Soil-Compass, giving you the right directions in Soil Corrosion Prediction and Modeling

[Home](#) | [Contact Us](#) | [PDF](#)

Copyright © 1995-2020. All rights reserved.