

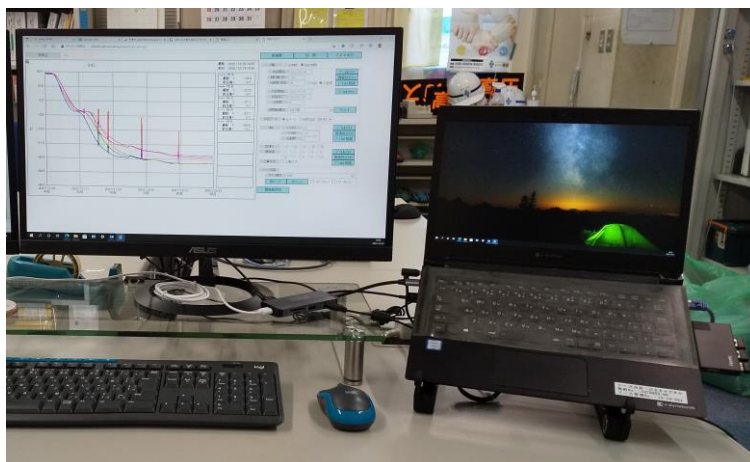
## Achieves full tracking of the ground improvement range

Registration No.	Number 00332		
Registration Date	September 13, 2022	Registration Category	Category 1 (multiple identical products such as mass-produced products)

Name (Model, etc.)	Related Materials on Visualizations System of in-site Forming Frozen Soil Wall		
Location	Ichihara-shi, Chiba		
	SEIKEN Co., Ltd. Ichihara Center		
Owner (Custodian)	SEIKEN Co., Ltd.		
Manufacturer (Company)	SEIKEN Co., Ltd., TOKYO DENKI SANGYO CO., LTD.		
Year Manufactured	2000, 2004		
Year first appeared	In around 1986		
Reason For Selection	It is relevant documents for the system that visualizes the state of the frozen soil wall in construction using ground freezing method. The specifications of the drawing system of the frozen soil wall that has been created and the completed documentation of the freezing measurement system are stored. By linking the measured values of the ground at the site (remotely monitored ground temperature measurement values) and the numerical simulation results (from ground freezing heat analysis software that automatically corrects with calculated numerical analysis values), the company achieved visualization of the frozen soil wall during construction. It is still in use, continuously improved by on-site conditions and equipment progress. It is presumably the world's first system according to an information from the International Symposium on Ground Freezing (ISGF). It is an important technology that makes it possible to fully grasp the strength of the ground improvement range and dramatically improves the safety of construction work.		
Registration Standard	1-B (Show a uniquely Japanese scientific or technological development from an international perspective.) 1-C (Contributed to the creation of a new scientific or technological field.)		

Open/Closed to Public	Closed to Public
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### Photo



2022 temperature measurement screen

Other useful information	
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