

Application Note

Even during this holiday season, our application lab has been busy helping customers solve their testing challenges. Because of tight margins in the energy sector, operators are looking for efficient solutions. When pipe sections require service, downtime and lost product can be prohibitively expensive. Many operators turn to composite pipe wraps to keep things flowing.

Composite pipe wrap is an economical and reliable means of increasing the service life of a given length of pipe. Effective wrapping solutions require a bonding layer between the composite and the pipe to prevent blowouts. The best way to ensure the bonding layer is intact is to implement a bond testing solution, namely the NDT Systems Bondascope 3100.



There are two distinct signatures relating to two types of flaws. The first was a delamination in the wrap layers, indicated by Gate 1 on the Bondascope shown at left. The second was a disbond between the composite structure itself and the steel pipe, indicated by Gate 2 shown at left. We delivered our findings to the pipe operator and they will be able to use this information to cut down on unnecessary repairs and focus only on areas that need attention.

Because of the relatively small size of this sample, scanning by hand is a quick and simple process. On larger pieces, automated scanning may be a more beneficial solution. The surface of the composite was somewhat irregular, and care to get good readings may be needed on samples with rougher, more irregular surfaces.

NDT Systems Inc. is a leading supplier of nondestructive testing equipment with 47 years of experience producing a wide range of ultrasonic thickness gages, bond testers, portable flaw detectors, and precision ultrasonic transducers. Give us a call at (714) 893-2438 or visit our website at www.ndtsystems.com.