



Key Services:

Corrosion Testing Failure Analysis

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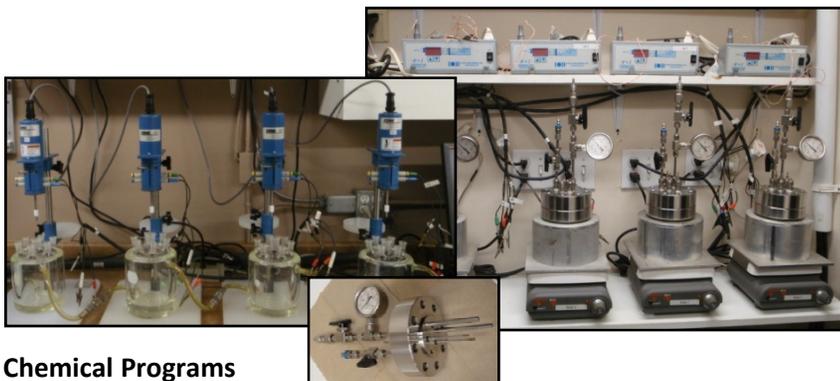
W: www.cormetrix.ca

What We Do

Cormetrix Limited offers full service state-of-the-art failure analysis and corrosion testing (electrochemical corrosion inhibitor and alloy evaluations, crude corrosivity assessment, corrosion coupon analysis), chemical program guidance and field investigations. Established in 1977, Cormetrix Ltd and its partner Ammonite Corrosion Engineering Inc. have a team of experts in corrosion; metallurgy; and oil and gas processes that provides our clients with high quality cost-effective results in a timely and efficient manner.

Corrosion Testing

Cormetrix Ltd has highly specialized corrosion testing equipment with the ability to perform tests to meet a wide range of field conditions inclusive of sour and high pressure/temperature. Gamry potentiostat's are used to perform electrochemical tests. Our tests meet ASTM and NACE standard methods and can accommodate any customized test procedures that may be required. We are committed to working with our customers to develop the best protocol to meet their specific needs. Our open door policy allows our clients to be as involved in the testing as they wish.



Chemical Programs

Cormetrix can assist the producer in selecting, implementing and managing cost effective, appropriate technologies for use in resolving production problems caused by corrosion, scale, bacteria, emulsion, or wax and asphaltenes.

- Optimization of chemical control programs.
- Selection of cost effective chemicals and integration of multi-chemical programs
- Improving water quality in secondary recovery
- Development of monitoring and data management program

Crude Corrosivity Testing – ASTM G205

The ASTM G205-10 guide describes test methods to determine the propensity of crude oil streams for internal corrosion by a combination of three properties: (1) the emulsion inversion point of the crude with brine, (2) brine wettability of a steel surface after crude contact and (3) resultant corrosivity of a water phase after contact with the crude. Cormetrix Ltd has specialized experience and equipment for completion of this test methodology.

Failure Analysis

Cormetrix Ltd performs corrosion related failure analysis for pipeline and process equipment. Our analysis considers the conditions that the corrosion activity occurred under and the mitigation practices employed. Clients receive a comprehensive, in-depth report that includes the following information:

System Description: Operating conditions, flow characteristics/modeling, production volumes, gas/hydrocarbon analyses, line history and other relevant information.

Water Chemistry: Discussion of water analysis, including scaling and corrosion tendencies. Validity of the water analysis is checked.

Sample Description: Description of sample; including measurements, digital photographs and any other significant observations.

Sample Examination: Description of analysis performed with observations during and after cleaning of wall scale. Inhibited acid cleaning is used to preserve the fine details of the corrosion damaged surface.

X-ray Diffraction Analysis: Significant/relevant scale will be sampled and analysed by on-site XRD.

Degradation Mechanism: A detailed discussion of the failure and of any contributing factors will be presented. The role played by system parameters, operating methods and mitigation practices is usually discussed.

Conclusions & Recommendations

Field Investigations

Depending on the work activity, field investigations maybe required to provide hands on data collection, carry out sampling requirements, perform inspections and facilitate discussions with operating personnel. Important information can be obtained by being on site to better understand the field/plant layout, operating practices and review of field records. Investigation of production history and operating methods done on-site often reveal significant clues. Our goal is to provide quality service and products to our customers utilizing our specialized testing capabilities and industry experience.

