



ENGINEERING ASSESSMENT

FOR-ENG-001

Date: September 15, 2010

Version: 4

Page: 1 of 6

(*) C.N. #: _____

Exclusive use for Citadel Technologies

Assessment submitted by: _____ **Date:** _____

GENERAL INFORMATION

I. Owner/Operator: _____

Plant Contact: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Phone #: _____ Fax: _____

Email: _____

Owner/Operator Verification of Submittal

Signature Date

II. Contractor/ Installer: _____

Contractor Field Contact (Name) _____

Field Office Address: _____

City: _____ State: _____ Zip Code: _____

Phone #: _____ Fax: _____

Email: _____

(*) A Case Number will be assigned to this assessment. Please refer to this Case Number on any purchase order or other communication related to this assessment.



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III. Plant Information

<input type="checkbox"/> Crude Oil	<input type="checkbox"/> Refinery	<input type="checkbox"/> Gas Processing	<input type="checkbox"/> Water
<input type="checkbox"/> Chemical	<input type="checkbox"/> DOT Pipeline		
<input type="checkbox"/> Other	Type of service line: _____		

IV. Situation Analysis

Description of Existing Condition:

<input type="checkbox"/> Not Leaking	<input type="checkbox"/> Seam Leak	<input type="checkbox"/> Crack
<input type="checkbox"/> Pinhole Leak	<input type="checkbox"/> Internal Corrosion	<input type="checkbox"/> External Corrosion

1. Pipe Specification

Diameter	_____	Length of flaw	_____
Repair Length	_____	Type of Steel	_____
Grade	_____	Schedule	_____

2. Component

<input type="checkbox"/> Pipe	<input type="checkbox"/> Tee		
<input type="checkbox"/> Elbow	<input type="checkbox"/> Tank	Other	_____

3. Temperature

Low _____ °F Max _____ °F Constant _____ °F Cycling _____ °F



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4. Line Pressure

Low _____ PSI Operating _____ PSI High ** _____ PSI

** **MAOP**: is the maximum allowable operating pressure as defined in ASME B31G or API 579 or other calculation method.

5. Line Chemistry

Type of chemical _____ Concentration _____ %

6. Measured wall thickness

	Inches	Date
Current		
Previous		

7. Max. un-supported span length

8. Pipe coating type

9. Details of the defect area

attach drawings, photos, and/or inspection reports for each area identified.

Defect	Location	Distance from weld	Size (Length, Width)	Depth of defect	Type of Flaw M,C, E (1)	Type of existent repair

(1) M - Mechanical

C - Corrosion

E - Erosion



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Sketch of repair area:

Additional Information:



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V. Risk

1. Plant Shutdown Production Loss Environmental

2. Emergency Repair Yes No

3. Wrap Line while in Service Yes No

4. Line pressure can be lowered during maintenance to _____ PSI

5. Line temperature can be lowered or raised during maintenance to

Low _____ °F Max _____ °F

6. Surface Preparation available? _____

7. Location of the repair :

Above ground Below ground Transition

8. Type of Repair:

a. How much of the pipe runs horizontally? _____ Ft.

b. How much of the pipe runs vertically? _____ Ft.

9. Minimum available space for the repair:

Above _____ Below _____ Around _____

10. Conditions at the time of repair

Pipe temperature _____ °F

Ambient temperature _____ °F

11. What is anticipated service life of the repair system? Months Years



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12. Wrap Schedule: Start day: _____

End: _____

13. Time allowed to complete work and return line to service _____

14. Services to be provided by the Owner/Operator _____

Please EMAIL or FAX information to 1-918-584-2221

This assessment is valid for 30 days. After 30 days an update should be submitted to verify that no changes have occurred that could adversely affect conditions and design.

This assessment is the only valid document for providing the engineering conditions of any defect. Special information can be attached; however, it has to be referenced in the assessment.

Citadel Technologies conforms to ASME PCC-2, Article 4.1 which states that all composite wraps shall be installed by trained and certified technicians.