



Pressure Equipment Integrity Management System Installation Inspection Form

NME Form I-2
Version 002.01
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Owner: Arsenal Energy Inc District/Area: British Columbia
 Facility: Osborn Location (LSD) ♦: B-33-J/94-a-9

Vessel Data

A Number ♦: 536143 Serial Number ♦: S-1664
 CRN ♦: T0849.23 Vessel Type: Separator
 Description ♦: Sweet Gas After Scrubber Process: Sweetening
 Tag No: _____ Current Status: Out of Service

Course #1 (Main)

Orientation: Vertical Coated? No Type: Vessel is not coated.
 Fluids: _____ Anodes? No Type: None Quantity: _____
 Sour ♦? Yes Hand Holes? No
 Manufacturer ♦: Silverado Oilfield Ventures Manway? No
 MAWP ♦: 4964 kPa MAWP Temp: 54 C°
 Shell Material: Not Specified Nom. Shell Thick: mm
 Head Material: Not Specified Min. Head Thick: mm
 Diameter: mm & Length: mm &
 Year Built ♦: 2005 Installation Date ♦: _____ Corrosion Allow: mm
 Volume: m³ Stress Relieved? No
 Radiography: RT2 ABSA Grade 1

Course #2

Description: _____ Course Type: Tubes Boot Vessel Firetube()Qty: _____
 Fluids: _____ Sour? Yes No
 MAWP: _____ kPa psi MAWP Temp: _____ C° F°
 Tube/Shell Material: _____ Nom. T/S Thick: _____ mm in.
 Head Material: _____ Min. Head Thick: _____ mm in.
 Diameter: _____ mm in & ID OD Length: _____ mm in.

PRV #1 Course #1 PRV Location or Position: Sweetener top shell
 Serial No ♦: S-1663 PRV Model No: T-8200-1
 Set Pressure ♦: psi Ports: 1"
 Capacity: scfm Manufacturer: Taylor
 Service date ♦: _____ Serviced by: _____
 Block Valve? No Install Date: _____ Tag no: _____

PRV #2 Course #2 PRV Location or Position: _____
 Serial No: _____ Model No: _____
 Set Pressure: psi Ports: _____
 Capacity: scfm Manufacturer: _____
 Last Service date: _____ Serviced by: _____
 Block Valve? _____ Install Date: _____ Tag no: _____

Comments: _____



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Installation Inspection	O.K.	<u>Comment</u>
Name Plate Accessible	<input checked="" type="checkbox"/>	
PRV Outlet Piping Check	<input checked="" type="checkbox"/>	
Piping Connections Made	<input checked="" type="checkbox"/>	
Inspection Access (i.e. skirt)	<input checked="" type="checkbox"/>	
Flare Line Slope Check	<input checked="" type="checkbox"/>	
Bolting Check	<input checked="" type="checkbox"/>	

External Inspection	O.K.	<u>Comments</u>
Paint/Coating Condition	<input checked="" type="checkbox"/>	Blisters noted
Insulation Condition:	<input type="checkbox"/>	N/A
External Condition:	<input checked="" type="checkbox"/>	Minor surface corrosion at blisters
Foundation:	<input checked="" type="checkbox"/>	Welded
Leaks/Drips/Seeping:	<input type="checkbox"/>	N/A
Bending/Warping/Distortion:	<input checked="" type="checkbox"/>	
Dents/Cuts/Gouges:	<input checked="" type="checkbox"/>	
Condition of Gauges:	<input checked="" type="checkbox"/>	No pressure gauge.

Current operating pressure (shell): N/A psi kPa Range: psi kPa
 Current operating pressure (tube): psi kPa Range: psi kPa
 Current operating temperature: (shell): N/A °F °C Range: -20 to 120 °F °C
 Current operating temperature: (tube): °F °C Range: °F °C

Ladders/Walkways:	<input checked="" type="checkbox"/>	
Ground Wire Connection:	<input checked="" type="checkbox"/>	
Other Equipment:	<input checked="" type="checkbox"/>	

PRV Data

	Vessel MAWP	PRV Set Pressure	PRV Capacity	PRV Size	Last Service Date	Serviced By	Block Valve Present?	Locked Open?
Shell Side	4964 kPa	#1		1"			No	No
Tube Side								

PRV Check: OK- PRV Set pressure is not greater than vessel MAWP PRV is set too high. Reset PRV to vessel MAWP.



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Additional Field Notes/Comments

Remedial Actions Required? no yes If yes, indicate required work and RA #: Remedial Action No.: _____

CRN not registered in BC. No BC#.

External condition is acceptable to warrant continued service? yes no

Inspector Name: Tyler Letourneau Inspector Company: Northern Materials Engineering LTD.

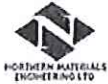
Inspector Signature: Inspection Date: Mar 11, 2010

Sketch / Image Area



Documentation

- ABSA Documents Acquired: Manufactures Data Report (U-1A) ABSA Certificate of Inspection
- Name Plate Information is correct? Yes No To be completed through routine ABSA reporting process
- Design is registered in province (CRN)? Yes No, Generate a remedial action and arrange for design registration



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Service Conditions

Process Fluids Description	<input checked="" type="checkbox"/> Sour	<input type="checkbox"/> Produced Water	<input type="checkbox"/> OWE	<input type="checkbox"/> Solids
	<input checked="" type="checkbox"/> Condensed Water	<input type="checkbox"/> Amine	<input type="checkbox"/> Air	<input type="checkbox"/> Frac. Sand
	<input checked="" type="checkbox"/> Liquid Hydrocarbon	<input type="checkbox"/> Glycol	<input checked="" type="checkbox"/> NG	<input type="checkbox"/> _____
Potential Mode(s) of Deterioration:	<input checked="" type="checkbox"/> Pitting	<input type="checkbox"/> Crevice	<input type="checkbox"/> High Temp	<input type="checkbox"/> Sulphidation
	<input checked="" type="checkbox"/> General Corrosion	<input type="checkbox"/> Erosion	<input type="checkbox"/> Cavitation	<input type="checkbox"/> Under Deposit Corr.
	<input type="checkbox"/> External Atm. Corrosion	<input type="checkbox"/> Under Insulation	<input type="checkbox"/> Mechanical Damage	
Cracking>	<input type="checkbox"/> SCC	<input type="checkbox"/> Hydrogen	<input type="checkbox"/> Fatigue	<input type="checkbox"/> Other
Area(s) Most Likely to Deteriorate:	<input type="checkbox"/> Top Head	<input checked="" type="checkbox"/> Bottom Head	<input type="checkbox"/> Nozzles	<input type="checkbox"/> Welds
	<input type="checkbox"/> Attachments	<input checked="" type="checkbox"/> Shell (lower)	<input type="checkbox"/> Shell (Upper)	<input type="checkbox"/> Shell (other)
	<input type="checkbox"/> Tubes	<input type="checkbox"/> Piping (inlet)	<input type="checkbox"/> Piping (outlet)	<input checked="" type="checkbox"/> Piping (drain)
Current Mitigation Program?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (if yes, describe)			
Other Considerations?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (if yes, describe)			

Additional Process Monitoring Yes No (if yes, describe in area below or attach details)

Fluids Sample (Type / Frequency/Analysis Req'd) _____
 Corrosion Monitoring (Coupons / Probes) _____
 Other (describe) _____

Inspection History

(Complete this section if the vessel is new and a baseline inspection was completed or if the vessel is used)

Inspection Company _____ Last Inspection Date _____

Inspection – Plan Assigned Inspection Grade _____ (if different than Grade 1, describe basis for exception in **Notes** section below)

Activity Required	Yes	No	Interval (years)	Due Date (dd / mmm / yy)	Comments
Offline Internal Visual	<input type="checkbox"/>	<input type="checkbox"/>	_____	/ /	_____
UT Inspection	<input type="checkbox"/>	<input type="checkbox"/>	_____	/ /	_____
Crack Inspection	<input type="checkbox"/>	<input type="checkbox"/>	_____	/ /	_____
Additional Inspection(s)	<input type="checkbox"/>	<input type="checkbox"/>	_____	/ /	_____
External Visual			N/A	/ /	_____
Initial PRV service interval			_____	/ /	_____

Notes

Complete if Assessor is different than Inspector

Assessor Name: _____ Company: _____

Assessor Signature: _____ Assessment Date: _____

Report Certification

Report Certified By (signature): _____ ISPVI No: 000328