



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 ♦: 517701 Serial Number ♦: VS-12521
CRN ♦: R3840.21 Vessel Type: Separator
Description ♦: Inlet Separator Process: Plant Inlet
Tag No: Current Status: In Service

Course #1 (Main)

Orientation: Vertical	Coated? No Type: Vessel is not coated
Fluids: Natural Gas/Water	Anodes? No Type: None Quantity:
Sour ♦? Yes	Hand Holes? No
Manufacturer ♦: Argo Sales Ltd.	Manway? No
MAWP ♦: 9929 kPa	MAWP Temp: 52 C°
Shell Material: Not Specified	Nom. Shell Thick: 38.1 mm
Head Material: Not Specified	Min. Head Thick: 34.04 mm
Diameter: mm &	Length: mm &
Year Built ♦: 2005 Installation Date ♦:	Corrosion Allow: 3.18 mm
Volume: m³	Stress Relieved? Yes
Radiography: RT1	ABSA Grade: 1

Course #2

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

PRV #1 Course #1 PRV Location or Position: Inlet separator top head on the roof

Serial No ♦: 20506-1 Model No: T-8200-2

Set Pressure ♦: 7378 kPa Ports: 2"

Capacity: 16689 scfm Manufacturer: Taylor

Service date ♦: Jun 1 2008 Serviced by: Dalco

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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A#: 517701 Vessel Description: Inlet Separator Location(LSD): B-33-J/94-a-9

Installation Inspection	<u>O.K.</u>		<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	<u>O.K.</u>		<u>Comments</u>
Paint/Coating Condition	<input checked="" type="checkbox"/>	Flaking and blistering noted	
Insulation Condition:	<input type="checkbox"/>	N/A	
External Condition:	<input checked="" type="checkbox"/>	Surface corrosion at flakes and blisters	
Foundation:	<input type="checkbox"/>	Welded	
Leaks/Drips/Seeping:	<input checked="" type="checkbox"/>		
Bending/Warping/Distortion:	<input checked="" type="checkbox"/>		
Dents/Cuts/Gouges:	<input checked="" type="checkbox"/>		
Condition of Gauges:	<input checked="" type="checkbox"/>		

Current operating pressure (shell): 100	<input checked="" type="checkbox"/> psi	<input type="checkbox"/> kPa	Range: 0 to 5000	<input checked="" type="checkbox"/> psi	<input type="checkbox"/> kPa
Current operating pressure (tube):	<input type="checkbox"/> psi	<input type="checkbox"/> kPa	Range:	<input type="checkbox"/> psi	<input type="checkbox"/> kPa
Current operating temperature: (shell):25	<input type="checkbox"/> °F	<input checked="" type="checkbox"/> °C	Range: -20 to 120	<input type="checkbox"/> °F	<input checked="" type="checkbox"/> °C
Current operating temperature: (tube):	<input type="checkbox"/> °F	<input type="checkbox"/> °C	Range:	<input type="checkbox"/> °F	<input type="checkbox"/> °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	9929 kPa	#1	7378 kPa	16689 scfm	2'	Jun 1 2008	Dalco	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.: _____

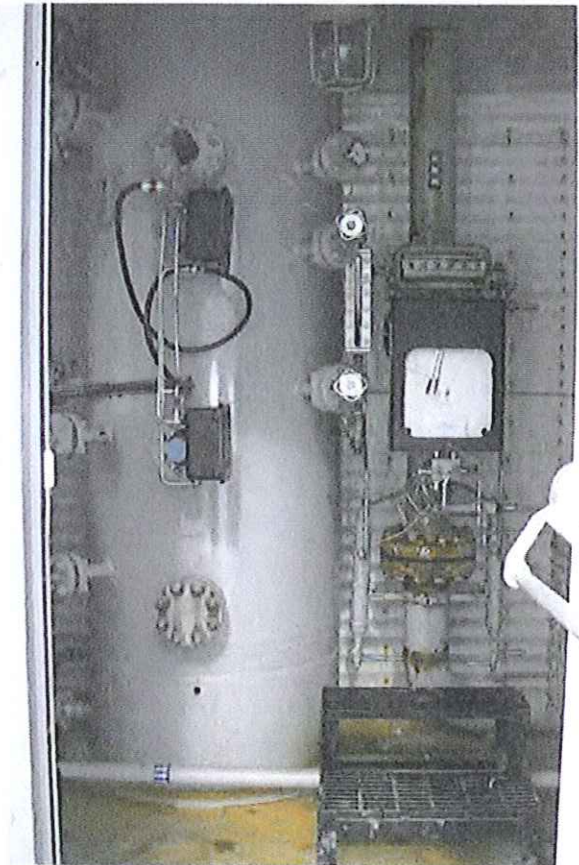
No BC#

External condition is acceptable to warrant continued service? yes no

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

Inspector Signature: *[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 checked="" 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 checked="" type="checkbox"/> Under Deposit Corr.
<input type="checkbox"/> External Atm. Corrosion	<input type="checkbox"/> Under Insulation	<input type="checkbox"/> Mechanical Damage	

Cracking> SCC Hydrogen Fatigue 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? Yes No
(if yes, describe) _____

Other Considerations? Yes 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 checked="" type="checkbox"/>		/ /	
UT Inspection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	/ /	UT due
Crack Inspection	<input type="checkbox"/>	<input checked="" type="checkbox"/>		/ /	
Additional Inspection(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		/ /	
External Visual			5	11/ Mar /2015	
Initial PRV service interval			3	01/ Jun /2011	

Notes

Complete if Assessor is different than Inspector

Assessor Name: _____ Company: _____

Assessor Signature: _____ Assessment Date: _____

Report Certification

Report Certified By (signature) _____ ISPVI No: 000328