



Pressure Equipment Integrity Management System External Visual Inspection Form

General Vessel Data

Owner: <u>NuVista Energy Ltd</u>	District/Area: <u>W5 Alberta North</u>
Facility: <u>Wapiti</u>	Location (LSD) ♦: <u>04-15-69-10 W6M</u>
A Number ♦: <u>413607</u>	Serial Number ♦: <u>C-9906-A/B</u>
CRN ♦: <u>L3369.213</u>	Vessel Type: <u>Line Heater</u>
Description ♦: <u>Line Heater</u>	Process: <u>Well Line Heater</u>
Tag No: _____	Status ♦: <u>In Service</u>

Status during Inspection In Service Out of Service

External Inspection

	<u>O.K.</u>	<u>Comments</u>
Paint/Coating Condition:	<input checked="" type="checkbox"/>	<u>Flanged ends are painted – no exposed metal</u>
Insulation Condition:	<input checked="" type="checkbox"/>	<u>No open sections or wet insulation</u>
External Condition:	<input checked="" type="checkbox"/>	<u>No distortion – no damaged areas</u>
Foundation:	<input checked="" type="checkbox"/>	<u>Skid is mounted on pilings – no settlement</u>
Leaks/Drips/Seeping:	<input checked="" type="checkbox"/>	<u>All valves are well supported – no visible leaks</u>
Bending/Warping/Distortion:	<input checked="" type="checkbox"/>	<u>All piping is well supported – no deflection, clamps and supports in place.</u>
Dents/Cuts/Gouges:	<input checked="" type="checkbox"/>	<u>No dents or gouges – no mechanical damage</u>
Condition of Gauges:	<input type="checkbox"/>	<u>No gauges</u>
Current operating pressure (shell): <input type="checkbox"/> psi <input type="checkbox"/> kPa Range: <input 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): <input type="checkbox"/> °F <input type="checkbox"/> °C Range: <input type="checkbox"/> °F <input 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"/>	<u>Attached to skid</u>
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	1350 psi	#1	psi						
	psi	#2	psi						
Tube Side	3944 psi	#1	psi						
	psi	#2	psi						

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

Ultrasonic thickness survey carried out – piping metal thickness detected below nominal minus 12.5% mill tolerance for corrosion allowance. Nominal thickness on 2 inch sch 160 is 8.7 mm / min thickness is 7.5 mm.

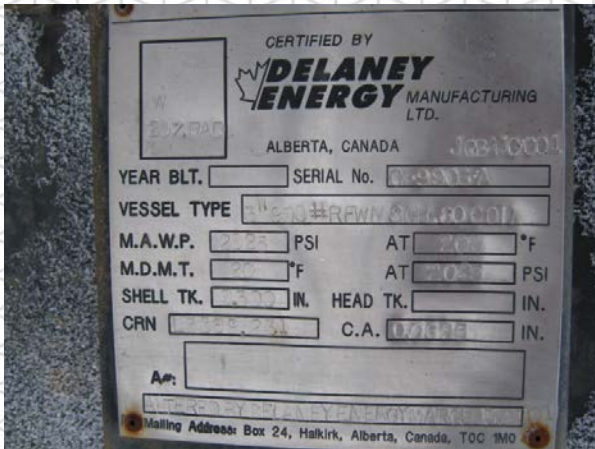
Remedial Actions Required? no yes If yes, indicate required work and RA #: Remedial Action No.: _____

External condition is acceptable to warrant continued service? yes no

Inspector Name: Dellas Wiedman Inspector Company: Applus RTD

Inspector Signature:  Inspection Date: Oct 27, 2010

Sketch / Image Area





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Service Conditions

Process Fluids Description: Sour Produced Water OWE Solids
 Condensed Water Amine Air Frac. Sand
 Liquid Hydrocarbon Glycol NG _____

Potential Mode(s) of Deterioration: Pitting Crevice High Temp Sulphidation
 General Corrosion Erosion Cavitation Under Deposit Corr.
 External Atm. Corrosion Under Insulation Mechanical Damage
Cracking SCC Hydrogen Fatigue Other

Area(s) Most Likely to Deteriorate: Top Head Bottom Head Nozzles Welds
 Attachments Shell (lower) Shell (Upper) Shell (other)
 Tubes Piping (inlet) Piping (outlet) 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 1 Previous Exam Grade _____

Activity Required	Yes	No	Interval (years)	Due Date (dd / mmm / yy)	Comments / Justification
Offline Internal Visual	<input type="checkbox"/>	<input checked="" type="checkbox"/>		/ /	
UT Inspection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	01/ Jan /2015	
Crack Inspection	<input type="checkbox"/>	<input checked="" type="checkbox"/>		/ /	
Additional Inspection(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		/ /	
External Visual			5	27/ Oct /2015	
PRV service interval				/ /	

Notes

Complete if Assessor is different than Inspector

Assessor Name: Tony Chan Company: Northern Materials Engineering Ltd.

Assessor Signature: Assessment Date: Apr 20, 2011

Report Certification

Report Certified By (signature): Certificate No: 000396 ISPVI