

**Canadian Natural Resources Limited  
GENERAL PRESSURE VESSEL INFORMATION**

**Job# 10.113785**

District: <b>Fort St John, BC</b>	Skid No.
Facility: <b>West Blueberry Battery</b>	Location (LSD): <b>12-29-88-25-W6M</b>
Vessel Name Equipment Number: <b>Flare Knock out Drum</b>	
Orientation: <b>Horizontal</b>	
Status: <b>In Service</b>	<b>Regulatory Inspection</b>

**PRESSURE VESSEL NAMEPLATE DATA**

"A" or "G" or "S" (Sask.) or BC Registration Number. <b>C23408</b>		CRN Number: Non Code	
Vessel serial number: 98120-002		Size: 36 in. x 10 ft.	
Shell thickness: 6.4 mm		Shell material: SA 36	
Head thickness: 6.4 mm		Head material: SA 36	
Tube wall thickness:		Tube material:	
Tube diameter:		Tube length:	
Channel thickness:		Channel material:	
Design pressure	Shell: N/S	Operating pressure	Shell:
	Tubes:		Tubes:
Design Temp.	Shell: N/S	Operating temperature	Shell:
	Tubes:		Tubes:
X-ray: none		Heat treatment: no	
Code parameters: Non Code		Coated: no	
Manufacturer: Black, Sivalls & Bryson		Year built: 1998	
Corrosion allowance: Not stated		Manway: yes	

**PRESSURE SAFETY VALVE NAMEPLATE DATA**

PSV Tag #	Manufacture / Model / Serial	Set Pressure (PSI / kPa)	Capacity (scfm)	Size	Block Valve	Location	Service Date
No PSV							

**SERVICE CONDITIONS-INDICATE ALL THAT APPLY**

Sweet	Sour X	Oil	Gas X	Water X
Amine	LPG	Condensate X	Air	Glycol

Other (Describe):

**Inspection Interval** \_\_\_\_\_ **PSV Service Interval** \_\_\_\_\_

(Determined by MIC in conjunction with Chief Inspector following guidelines of CNRL's Owner-User Inspection Program)

Reports reviewed and accepted by:

**Mechanical Integrity Coordinator** \_\_\_\_\_ **Date** \_\_\_\_\_

Fill out all forms as completely as possible. All information is important! Use back of sheets to record additional information or sketch if required. Copy of report to be filed by MIC at site, and copy sent to Chief Inspector

<b>External Inspection Items</b>	G	F	P	N/A	<b>Comments</b>
<b>Insulation</b> Verify sealed around manways, nozzles, no damage present, and there is no egress of moisture.	X				<b>No damage present- no egress of moisture Sealed at man way and nozzles</b>
<b>External Condition</b> Assess paint condition, areas peeling, record any corrosion, damage, etc (record location, size and depth of corrosion or damage)	X				<b>Paint in good overall condition – No exposed metal</b>
<b>Leakage</b> Record any leakage at flanges, threaded joints, weep holes on repads, etc.	X				<b>No leaks observed</b>
<b>Saddle/skirt</b> Assess condition of paint, fire protection, and concrete. Look for corrosion, buckling, dents, etc. Look at vessel surface area near supports. Verify no signs of leakage at attachment to vessel and attachment welds are acceptable. Ground wire attached?	X				<b>Saddle: Welded directly to skid frame – no buckling or dents. No corrosion at attachment welds to vessel – no leaks. Ground wire attached to skid</b>
<b>Anchor Bolts</b> Hammer tap to ensure secure. Look for cracking in treads or signs of deformation.	X				<b>Saddle welded to skid frame.</b>
<b>Concrete foundation</b> Check for cracks, spalling, etc.				X	
<b>Ladder / Platform</b> Describe general condition, ensure support is secure to vessel, and describe any hazards.				X	
<b>Nozzle</b> Assess paint, look for leakage, and ensure stud threads are fully engaged. Record any damage, deflection, etc. Are nozzles gusseted?	X				<b>Stud threads are fully engaged to nuts. No leaks observed. No damage or deflections. Nozzles are not gusseted</b>
<b>Gauges</b> Ensure gauges are visible, working, no leakage, and suitable for range of MAWP/ Temp.	X				<b>No gauges</b>
<b>External Piping</b> Ensure pipe is well supported. All clamps, supports, shoes, etc. in place. Look for evidence of structural overload, deflection, etc. Paint condition, external corrosion?	X				<b>Piping is well supported – all clamps, supports and shoes are in place. No structural overloads or deflections. Piping is insulated no damage present.</b>
<b>Valving</b> Ensure no leaks are visible. Valves are properly supported and chained if necessary.	X				<b>No valves</b>
<b>PSV</b> Ensure PSV is set at pressure at or below that of vessel.	X				<b>No PSV – vent to flare</b>
<b>NDE methods</b> was UT/ MPI done on vessel (MI coordinator to review results)	X				<b>Ultrasonic thickness survey carried out – no metal thickness detected below nominal.</b>
<b>Other</b>					
<p><b>Recommendations or corrective actions : Vessel is Fit for Service or describe corrective actions required)</b>  (MIC to review corrective actions with Operations, discuss with Chief Inspector where necessary, and get remedial action implemented)  <b>Recommendations:</b> 1.No Recommendations at this time  <b>Summary: This vessel is in good condition, visual external and ultrasonic thickness inspection carried out – no metal thickness detected below nominal minus corrosion allowance.  Vessel is fit for service.</b></p>					

**Inspected By:** Matt Wood (API 510 # 42758)

**Date:** January 11<sup>th</sup>, 2014

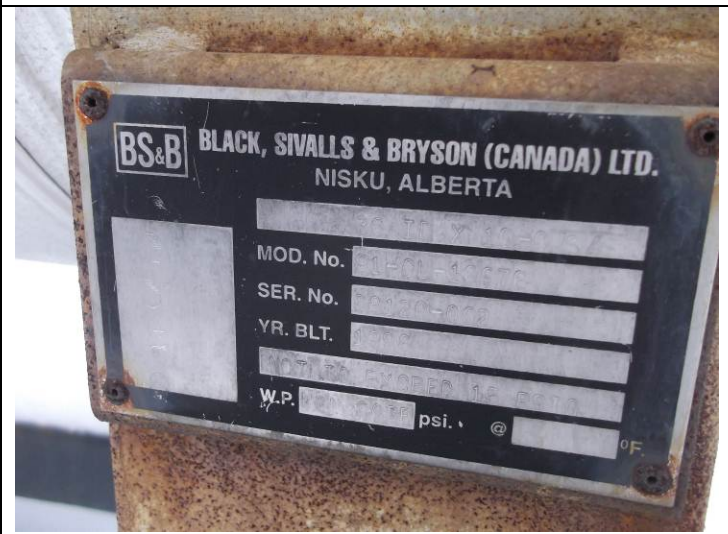
Photo Table



LSD



Overview



Data Plate



Manway



Base

