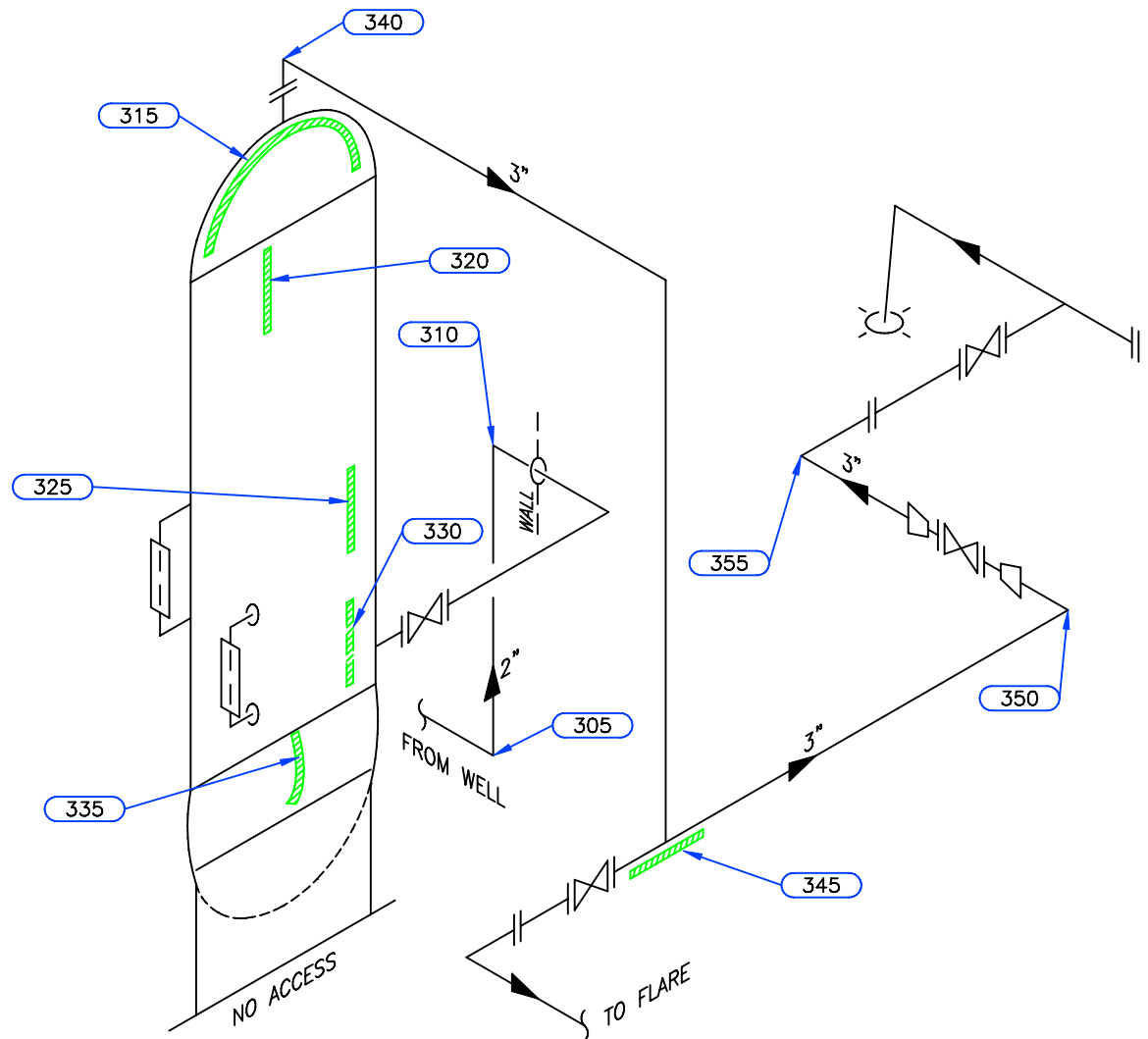


**PSV DATA**  
 MFG: FARRIS  
 MODEL: 24700L  
 SERIAL: CE-10573-KC  
 SET PRES: 4895 kPa  
 CAPACITY: 845 scfm  
 SERVICED BY: N/S  
 SERVICE DATE: N/S  
 SIZE: 1"x1"  
 CODE STAMP: UV/NB  
 BLOCK VALVE: NO  
 CRN: OG254.2C  
 LOCATION: TOP HEAD



Equip. No. \_\_\_\_\_ Prov. Reg. No. **223840** C.R.N. **F-7293.2** Serial No. **TW-86J21** Yr. Inst. \_\_\_\_\_  
 Code/Div. **ASME VIII, Div 1** Size: **24in x 96in** Manufacturer: **TYSON WELDING** Yr. Blt. **1986**  
 C. Stamp: **U** Service: **SOUR** PWHT: **NIL** Radiography: **RT-1** Insulated: **NO**

**Design & Materials Data**

**HEAD:**  
 Top Mat'l. **SA 516 70** Top Nom. **21.7mm** Top C.A. **1.6mm**  
 Btm. Mat'l. **SA 516 70** Btm. Nom. **21.7mm** Btm. C.A. **1.6mm**  
**CHANNEL:**  
 Material: \_\_\_\_\_ Nominal: \_\_\_\_\_ C.A. \_\_\_\_\_  
**BOOT**  
 Head Mat'l. \_\_\_\_\_ Head Nom. \_\_\_\_\_ Head C.A. \_\_\_\_\_  
 Shell Mat'l. \_\_\_\_\_ Shell Nom. \_\_\_\_\_ Shell C.A. \_\_\_\_\_  
**SHELL**  
 Material: **SA 516 70** Nominal: **22.2mm** C.A. **1.6mm**  
 MAWP Shell Side: **4964 kPa** @ Temp. **66°C**  
 MAWP Tube Side: \_\_\_\_\_ @ Temp. \_\_\_\_\_

CLIENT	CANADIAN NATURAL RESOURCES LTD	
FACILITY	NORTH TONY FIELD	
	LSD 10-10-63-20 W5M	
ITEM	SEPARATOR	
BY: NR	DATE: 05/2008	DWG.# 72

## UTS DATA

**CLIENT:** CANADIAN NATURAL RESOURCES

**FACILITY:** NORTH TONY FIELD

**EQUIPMENT:** SEPARATOR PIPING

**SERVICE:** SOUR

**CRN#:**

**LOCATION:** 10-10-63-20 W5M

**PROV REG:** A 223840

**RTD JOB #:** 05.002161

**TESTED ON STREAM**

**REFER TO DRAWING:** 72

Test Point	THICKNESS DATA				Flag	Crit	C.A.	Nom.	Short Term	Long Term	Ave. mm/py	Flag Date
305												
Description:	2" 90° ELBOW											
	2008 10											
Min. Thick.	4.6	3.41	.5	3.9					0	0		L
Average:	4.8											L
Analysis:												
310												
Description:	2" 90° ELBOW											
	2008 10											
Min. Thick.	4.9	3.41	.5	3.9					0	0		L
Average:	5.1											L
Analysis:												
340												
Description:	3" 90° ELBOW											
	2008 10											
Min. Thick.	7.1	6.65	1	7.6					0	0		L
Average:	7.2											L
Analysis:												
345												
Description:	3"x3" TEE											
	2008 10											
Min. Thick.	9.4	6.65	1	7.6					0	0		L
Average:	10											L
Analysis:												
350												
Description:	3" 90° ELBOW											
	2008 10											
Min. Thick.	7	6.65	1	7.6					0	0		L
Average:	7.2											L
Analysis:												

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

District: Grande Prairie, AB	Skid No.
Facility: North Tony Creek Gas Gathering	Location (LSD): 10-10-63-20-W5M
Vessel Name Equipment Number: Test Separator	
Orientation: Vertical	
Status: Not operating	<b>Regulatory Inspection</b>

**PRESSURE VESSEL NAMEPLATE DATA**

"A" or "G" or "S" (Sask.) or BC Registration Number. <b>A 223840</b>		CRN Number: <b>F 7293.2</b>	
Vessel serial number: TW-86J21		Size: 24 in x 97 in	
Shell thickness 22.2 mm		Shell material: SA 516-70	
Head thickness: 21.7 mm		Head material: SA 516-70	
Tube wall thickness:		Tube material:	
Tube diameter:		Tube length:	
Channel thickness:		Channel material:	
Design pressure	Shell: 1440 psi	Operating pressure	Shell:
	Tubes:		Tubes:
Design Temp.	Shell: 100 F	Operating temperature	Shell:
	Tubes:		Tubes:
X-ray: RT-2		Heat treatment: No	
Code parameters: ASME VIII, Div 1		Coated: Not stated	
Manufacturer: Tysons Welded		Year built: 1986	
Corrosion allowance: 1.6 mm		Manway: No	

**PRESSURE SAFETY VALVE NAMEPLATE DATA**

PSV Tag #	Manufacture	Model #	Serial #	Set Pressure (psi)	Capacity (scfm)	Service Date
<b>4275 F</b>	<b>Farris</b>	<b>2470UL</b>	<b>CE-10573-KC</b>	<b>710 psi</b>	<b>845</b>	
CRN #	Service By	Block Valve	Location	Size	Code Stamp	
<b>OG254.2C</b>		<b>No</b>	<b>Top Head</b>	<b>1 in x 1 in</b>	<b>UV/NB</b>	

**SERVICE CONDITIONS-INDICATE ALL THAT APPLY**

Sweet	<u>Sour</u>	Oil	<u>Gas</u>	<u>Water</u>
Amine	LPG	<u>Condensate</u>	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

External Inspection Items	G	F	P	N/A	Comments
<b>Insulation</b> Verify sealed around manways, nozzles, no damage present, and there is no egress of moisture.				x	<ul style="list-style-type: none"> <li>• <b>Non insulated vessel.</b></li> </ul>
<b>External Condition</b> Assess paint condition, areas peeling, record any corrosion, damage, etc (record location, size and depth of corrosion or damage)			x		<ul style="list-style-type: none"> <li>• <b>Paint in fair condition.</b></li> <li>• <b>No surface corrosion on vessel noted.</b></li> <li>• <b>No damage or mechanical damage noted.</b></li> </ul>
<b>Leakage</b> Record any leakage at flanges, threaded joints, weep holes on repads, etc.	x				<ul style="list-style-type: none"> <li>• <b>No leakage noted.</b></li> </ul>
<b>Saddle/Skirt</b> Assess condition of paint, fire protection, 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			<ul style="list-style-type: none"> <li>• <b>Paint in fair condition.</b></li> <li>• <b>Slight corrosion, no buckling or mechanical damage noted.</b></li> <li>• <b>No leakage noted.</b></li> <li>• <b>Common ground through the skid.</b></li> </ul>
<b>Anchor Bolts</b> Hammer tap to ensure secure. Look for cracking in treads or signs of deformation.			x		<ul style="list-style-type: none"> <li>• <b>Vessel is not mounted. Vessel appears to be welded but is not fused to skid.</b></li> </ul>
<b>Concrete foundation</b> Check for cracks, spalling, etc.				x	
<b>Ladder / Platform</b> Describe general condition, ensure support is secure to vessel, 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			<ul style="list-style-type: none"> <li>• <b>Paint in fair condition.</b></li> <li>• <b>All studs fully engaged.</b></li> <li>• <b>No damage or deflection noted, no gussets.</b></li> <li>• <b>Slight surface corrosion occurring.</b></li> </ul>
<b>Gauges</b> Ensure gauges are visible, working, no leakage, and suitable for range of MAWP/ Temp.	x				<ul style="list-style-type: none"> <li>• <b>All gauges are visible, and within the MAWP and Temp of vessel.</b></li> </ul>
<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			<ul style="list-style-type: none"> <li>• <b>All piping well supported.</b></li> <li>• <b>All clamps and shoes in place.</b></li> <li>• <b>No overload or deflection noted.</b></li> <li>• <b>Paint in fair with slight surface corrosion noted.</b></li> </ul>
<b>Valving</b> Ensure no leaks are visible. Valves are properly supported and chained if necessary.	x				<ul style="list-style-type: none"> <li>• <b>No leaks noted.</b></li> <li>• <b>All valves supported with no chains required.</b></li> </ul>
<b>PSV</b> Ensure PSV is set at pressure at or below that of vessel.	x				<ul style="list-style-type: none"> <li>• <b>PSV set @ 710 psi.</b></li> <li>• <b>MAWP of vessel 720 psi.</b></li> </ul>
<b>NDE methods</b> Was UT/ MPI done on vessel (MI coordinator to review results)	x				<ul style="list-style-type: none"> <li>• <b>Ultrasonic thickness survey carried out – no metal thickness detected below nominal minus corrosion allowance.</b></li> </ul>
<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: Weld skirt to skid.</b>  <b>Summary: This vessel is in good condition, visual external and ultrasonic thickness survey carried out – no metal thickness detected below nominal minus corrosion allowance.</b>  <b>Vessel is fit for service</b></p>					

Photo Table



Site Overview



Data Plate (Alteration)



Vessel view.



Skirt weld, note not welded.



Pressure Gauge



Data Plate