

FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS

(Alternative Form For Single Chamber, Completely Shop-Fabricated Vessels Only)

As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

④414068

- Manufactured and certified by: **LARSEN & D'AMICO MFG. LTD. 9805 - 51 Avenue, Edmonton, Alberta T6E 4W8**
(Name and Address of Manufacturer)
- Manufactured for: **NORCEN ENERGY RES. LTD. C/O TARTAN ENGINEERING #1700, 800-6TH AVE. S.W. CALGARY, ALTA. T2P 3G3**
(Name and Address of Purchaser)
- Location of installation: **KNOPCIK GAS PLANT LSD: 6-22-75-11-W6M**
(Name and Address)
- Type: **Horizontal** (Horz, Vert, Tank, etc) **HS-7725** (Mfr's serial No) **N-3177.2** (CRN) **LD-3314-A REV. 1** (Drawing No) **N/A** (Nat'l Bd No) **1996** (Year Built)
- The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSURE VESSEL CODE. The design, construction, and workmanship conform to ASME Rules, Section VIII, Division 1 **1995** to **1995**
(Year) Addenda (Date)
N/A Code Case Numbers **N/A** Special Services per UG-120(d)
- Shell: **SA-516-70 MT** **1.25"** (31.75) **1/16"** (1.6) **48" I.D.** (1219) **168"** (4267)
Mat'l (Spec. No., Grade) Nom Thk Corr. Allow Diam I.D. / O.D. Length Overall
inch (mm) inch (mm) inch (mm) inch (mm)
- Seams: **DBL BUTT** **FULL** **100** **N/A °F** **N/A °C** **N/A** **DBL BUTT** **FULL UW11(a)** **2**
Long. (Welded, Dbl R T (Spot Eff (%) H.T. Temp. Time (hr) Girth (Welded, Dbl. R.T. (Spot/Partial/Full) No of
Sngl., Lap, Butt) or Full) Courses
- Heads: (a) Mat'l **SA-516-70 MT** (b) Mat'l **SA-516-70 MT**
(Spec. No. Grade) (Spec. No. Grade)

	Location (Top, Bottom, Ends)	Minimum Thickness in. (mm)	Corrosion Allowance in. (mm)	Crown Radius in. (mm)	Knuckle Radius in. (mm)	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Concave or Convex)
(a)	ENDS	1.211" (30.76)	1/16" (1.6)	0" (0.00)	0" (0.00)	2:1				CONCAVE
(b)	ENDS	1.218" (30.94)	1/16" (1.6)	0" (0.00)	0" (0.00)	2:1				CONCAVE

If removable, bolts used (describe other fastenings) **N/A**
(Mat'l, Spec. No., Gr., Size, No.)

- MAWP **740 psi** **5102 Kpa** at max. temp. **100 °F** **38 °C** Min. design metal temp. **-20 °F** **-29 °C**
at **740 psi** **5102 Kpa** **Hydro Test pressure** **1110 psi** **7653 Kpa**

10. Nozzles, inspection and safety valve openings:

Purpose (inlet, outlet, drain)	No.	Diam or Size	Type	Mat'l	Nom Thk.	Reinforcement Mat'l	How Attached	Location
SEE ATTACHED U4 FORM								

- Supports: Skirt **NO** Lugs **N/A** Legs **2** Other **N/A** Attached **SHELL / WELDED**
(Yes or No) (No) (No) (Describe) (Where and How)

- Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: **IMPACT TESTS EXEMPT PER UG-20(f) PARAGRAPHS 1 - 5** ****HEAD CALCULATED Min. 1.125 in. (28.58 mm)**

Type: **3 PHASE HORIZONTAL INLET SEP.** **** WATER BOOT** WO# **3460** Item # **HS**
Weight: **17161 lbs.** **7779.69 (kg)** SHELL THICK. **1" (25.4 mm)** Hydrotest Position: **HORIZONTAL**
Capacity: **196 cu.ft.** **5.55 (cu. Meters)** HEAD THICK. MIN. **0.938" (23.83 mm)** Fabrication Drawing No. **LD-3314-A REV. 2**

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1. "U" Certificate of Authorization No. **14254** Expires **October 28, 1998**.

Date **October 3, 1996** Company Name **Larsen & D'Amico Manufacturing Ltd** Signed **Elvis Iacobelli**
(Manufacturer) (Representative)

CERTIFICATE OF SHOP INSPECTION

Vessel constructed by: **Larsen & D'Amico Manufacturing Ltd. at 9805-51 Avenue, Edmonton, Alberta** I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of **Alberta** and employed by **Alberta Boilers Safety Association** have inspected the component described in this Manufacturer's Data Report on **Oct 3, 1996** and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division 1. By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date **Oct 3, 96** Signed **S. S. S. S. S.** Commissions **Alberta #4 A.**
(Authorized Inspector) (National Board (include Endorsements) State, Prov and No)

As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1.	Manufactured and certified by:	LARSEN & D'AMICO MFG. LTD. 9805 - 51 Avenue, Edmonton, Alberta T6E 4W8 (Name and Address of Manufacturer)						
2.	Manufactured for:	NORCEN ENERGY RES. LTD. C/O TARTAN ENGINEERING #1700, 800-6TH AVE. S.W. CALGARY, ALTA. T2P 3G3 (Name and Address of Purchaser)						
3.	Location of installation:	KNOPCIK GAS PLANT LSD: 6-22-75-11-W6M (Name and Address)						
4.	Type:	Horizontal (Horz, Vert. or Sphere)	SEPARATOR (Tank, Sep., Heat Exh., Etc.)	HS-7725 (Mfg'r's Serial No.)	N-3177.2 (CRN)	LD-3314-A REV. 1 (Drawing No.)	N/A (Nat'l Bd No.)	1996 (Year Built)

Certificate of Authorization: Type: U No 14254 Expires OCTOBER 28 19 98

Date October 3, 1996 Name LARSEN & D'AMICO MFG. LTD.
(Manufacturer) Signed Elvis Iacobelli
(Representative)

Date Oct 3, 96 Name SATWANT RAKHRA
(Authorized Inspector) Commission Alberta #64 A.
[Nat'l Board incl Endorsement State Province and No]