

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

1. Manufactured and certified by: **LARSEN & D'AMICO MFG. LTD. 9805 - 51 Avenue, Edmonton, Alberta T6E 4W8**
(Name and Address of Manufacturer) Ⓐ 419305
2. Manufactured for: **NUMAC ENERGY LTD., c/o GAS LIQUIDS ENG. LTD., #300, 2749-39TH AVE. N.E., CALGARY, ALTA., T1Y 4T8**
(Name and Address of Purchaser)
3. Location of installation: **LSD: 15-01-86-22-W6**
(Name and Address)
4. Type: **Horizontal** (Horz. Vert. Tank, etc.) **HS-8400** (Mfr's serial No) **N8849.21** (CRN) **LD-3483-A1 REV. 1** (Drawing No) **N/A** (Nat'l Bd No) **1997** (Year Built)

5. 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 **1.96**
(Year) Addenda (Date)

N/A
Code Case Numbers

N/A
Special Services per UG-120(d)

6. Shell: **SA-516-70 MT** (Matl (Spec No., Grade)) **2"** (Nom Thk inch) **(50.80)** (mm) **1/8"** (3.2) (Corr Allow inch) **(mm)** **48"** (1219) (Diam ID / O.D inch) **(mm)** **192"** (4877) (Length Overall inch) **(mm)**
7. Seams: **TYPE 1** (Long, (Welded, Dbl Sngl., Lap, Butt)) **FULL** (RT (Spot or Full)) **100** (Eff (%)) **1150 °F 621.1 °C** (HT Temp) **120 MIN.** (Time (hr)) **TYPE 1** (Girth (Welded, Dbl Sngl., Lap, Butt)) **FULL UW11(a)** (RT (Spec/Partial/Full)) **2** (No of Courses)
8. Heads: (a) Matl **SA-516-70 MT** (Spec No Grade) (b) Matl **SA-516-70 MT** (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	1.959" (49.76)	1/8" (3.2)	0" (0.00)	0" (0.00)	2:1				CONCAVE
(b)	ENDS	1.959" (49.76)	1/8" (3.2)	0" (0.00)	0" (0.00)	2:1				CONCAVE

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

9. MAWP **1135 psi** **7826 Kpa** at max. temp. **120 °F 48.96 °C** Min. design metal temp. **-4 °F -19.98 °C**
at **1135 psi** **7826 Kpa** **Hydro Test pressure 1703 psi** **11742 Kpa**

10. Nozzles, inspection and safety valve openings:

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

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

12. 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. 1.9375 in. (49.21 mm)**

ITEM 6,8,19,20,21, PER FIG. UCS-66 & TABLE UCS-66 CURVE D
ITEM N1,N2,N3,N5 A/B, MW, PER UCS-66 (g)

Type: **3 PHASE HORIZONTAL SEPARATOR** **** PRESSURE RELIEF DEVICE WILL BE PROVIDED BY OTHERS IN THE PIPING** WO# **3627** Item # **HS**
Weight: **27800 lbs. 12610.08 (kg)** Hydrotest Position: **HORIZONTAL**
Capacity: **223 cu.ft. 6.32 (cu. Meters)** Fabrication Drawing No. **LD-3483-A1 REV. 3**

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 Nov 24 97 Company Name Larsen & D'Amico Manufacturing Ltd Signed [Signature]
(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 NOV 26 19 97 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 27 Nov 97 Signed [Signature] Commissions Alberta #21
(Authorized Inspector) [National Board (include Endorsements) State, Prov. and No.]

