

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

**A 431782**

1 Manufactured and certified by WELLS-HALL FABRICATION & CONSTRUCTION LTD., 6115-30 Street N.W., EDMONTON, AB T6J 1J8  
2 Manufactured for CANADIAN NATURAL RESOURCES, 2000 425-1ST SW, CALGARY, AB T2P 3L8

3 Location of installation STOCK  
4 Type VERT. CONTACTOR (hour or vert tank) 96 8664-4 (Mfg's serial No.) M2316.21 (CRN) 33-A-6979-6 (Part No.) 1997 (Year built)

5 The chemical and physical properties of all parts must 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

6 Shell SA-516-70 MT (Matl Spec. No. Grade) 1.125" (Nom. Thk.) 0.125" (Code Cor. Add) 21.750" (Diam. ID (ft. & in.)) 30'-0" (Length (overall) (ft. & in.))  
7 Seams TYPE 1 (Long welded, Dbl. Singl. Lap Joint) FULL (RT. Splice or Full) 70 MIN (Time (hr)) TYPE 1 & 2 (Matl Spec. No. Grade) FULL (RT. Splice, Pentis or Full), 4 (No. of Courses)  
8 Heads (a) Matl SA-516-70 MT (Matl Spec. No. Grade) SA-516-70 MT (Type No. Grade)

Location (Top Bottom Ends)	Minimum Thickness (ASME)	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a) TOP	1.070"	0.125"			2:1				CONCAVE
(b) BOTTOM	1.070"	0.125"			2:1				CONCAVE

If removable, bolts used (describe other fastenings) N/A  
9 MAWP (9928 KPa) 1440 psi at max temp (54°C) 130 °F  
10 Min design metal temp (-29°C) 20 °F at 1440 psi Hydro pneu. or comb test pressure (14,893 kPa) 2160 psi  
Nozzles, inspection and safety valve openings

Purpose (Inlet, Outlet, Drain)	No.	Diam. of Size (inches)	Type	Matl	Norm. Thk.	Reinforcement Matl	How Attached	Location
INLET / OUTLET	2	4"	RFLWN	SA-105N	600#	N/R	WELDED	SHELL / TOP HEAD
DRAIN / PSV WATER OUT	3	2"	RFLWN/PIPE	SA-105N/SA-106B	600# / SCH. 160	N/R	WELDED	SHELL / BTM HEAD
LC / INSPECTION	2	3"	RFLWN	SA-105N/	600#	N/R	WELDED	SHELL
COIL, GLY. IN & OUT, I.C.G. PI	7	1"	RFLWN/PIPE	SA-105N/SA-106B	600# / SCH. XXH	N/R	WELDED	SHELL
TI	1	1 1/2"	RFLWN/PIPE	SA 105N SA-106B	600# / SCH. XXH	N/R	WELDED	SHELL

11 Supports Skirt YES Lugs 2 (LIFT) Legs 0 Other N/A Attached WELDED TO BOTTOM HEAD (Where to 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

24" OD X 30'SS X 1440 PSIG X 0.125" C.A. VERTICAL GLYCOL CONTACTOR HYDROTESTED HORIZONTALLY IMPACTS EXEMPT PER I.C. 280 & UCS-66. RADIOGRAPHY PER LW 11(a), RT (100%), EXCEPT C2 CULTRASONICALLY INSPECTED PER APP. 12. AS BUILT DWG. 37-A-8664-3 . WT. 10,700 LBS. VOL. 162.97-4 CUST# F93823-033  
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. 19595 expires July 31 1999  
Date Feb 5/97 Co Name WELLS-HALL FABRICATION & CONSTRUCTION LTD. Signed R Wood (Manufacturer)

CERTIFICATE OF SHOP INSPECTION  
Vessel constructed by WELLS-HALL FABRICATION & CONSTRUCTION LTD. at 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 Boiler Safety Association

have inspected the component described in this Manufacturer's Data Report on Feb 5 1997 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 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 in connection with this inspection.  
Date 97-2-5 Signed R Hefner (Inspector) Alberta 39A (Part Board (include endorsement), State, Prov. and No.)  
Commissions