FORM U-1A MANUFACTURERS' DATA REPORT FOR PRESSURE VESSELS
(Alternate 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 by Cyprus Specialty Steel Co., 1500 S.7th St., Phoenix, AZ 85034
2. Manufactured for Amerigas Phoenix, Arizona
3. Location of Installation Phoenix, Arizona
4. Type Horizontal (Horiz. or vert. tank) 1429 (Mfgr's Serial No.) U-1 (CRN) 226 (Drawing No.) (Nat'l Brd No.) (Year Built) 1981
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 1980 (Year) and Addenda to Winter 1980 (Date) and Code Case Nos. None
   Special Service per UG-120(d) Not Applicable
   Manufacturers' Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: None
6. Shell: Matl. SA516 GR70 (Spec. No., Grade) Nom. Thk. 0.79 in. Corr. Allow. None in. Diam. 78 in. Lgth. 48 ft 0 in.
7. Seams: Long. Welded Dbl Butt (Welded, Dbl, Sngl, Lap, Butt) R.T. Full (Spot or Full) Efficiency 100 % H.T. Temp. - F Time - hr
   Girth Welded Dbl. Butt (Welded, Dbl, Sngl, Lap, Butt) R.T. Partial (Spot, Partial, or Full) No. of Courses 5
8. Heads: (a) Material SA516 GR70 (Spec. No., Grade) (b) Material SA516 GR70 (Spec. No., Grade)

	Location (Top, Bottom, Ends)	Min. Thk	Corr Allow	Crown Radius	Knuckle Radius	Ellipse Ratio	Conical Apex Angle	Hemisph. Radius	Flat Diam.	Side to Pressure (Convex or Concave)
(a)	End	0.782	0			2:1				Concave
(b)	End	0.782	0			2:1				Concave

   If removable, bolts used (describe other fastenings) None (Material, Spec. No., Gr., Size, No.)
9. Constructed for max. allowable working pressure 350 psi at max. temp. 650 F. Min. temp. (when less than -20 F) - F. Hydrostatic, ~~pneumatic or combination~~ test pressure 525 psi.
10. Safety Valve Outlets: Number 1ea Size 1½, 2" Location Shell
11. Nozzles and Inspection Openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Matl.	Nom. Thk.	Reinforcement Matl	How Attached	Location
or, Fill, Drain	7	2"	Stub End	SA106GRB	0.218			
Liq. Aux.	1	1"	Stub End	SA106GRB	0.179			
Refrig.	2	1"	Coupling	SA105	0.2175			
Tank Element	1	4"	Flanged	SA53B	0.337	SA516GR70		
Manway	1	11X15	Elliptical	SA105	1½"		Welded	Head a

12. Supports: Skirt No (Yes or no) Lugs (No.) Legs (No.) Other Saddles (Describe) Attached Shell Welded (Where and how)
13. Remarks:
    78" I.D. X 48'-0" Tan to Tan Liquid CO2 Storage Vessel "1D"
    12451 Gal. Capacity UG-22 Items (a)(2),(a)(4) & (a)(6)(c) Not Considered
    Vessel to be tested in horizontal position

CERTIFICATE OF 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.
Date 7-27-81 Signed Cyprus Specialty Steel (Manufacturer) by Harold Barsness (Representative)
"U" Certificate of Authorization No. 4909 expires December 31, 1983

CERTIFICATE OF SHOP INSPECTION

Vessel made by Cyprus Specialty Steel Co. at Phoenix, Arizona
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 Phoenix, AZ and employed by H.S.B.I&I. Co. have inspected the pressure vessel described in this Manufacturers' Data Report on July 27 1981, 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 the Manufacturers' 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.
Signed [illegible] (Inspector) Date 7-27-81 Commissions NB-7179 (Nat'l Board, State, Province and No.)

(1/76) This form (E00117) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017