Williams Field Services

Stewart Dew Point Hickory, PA

7-23-2012

A-Scan Baseline Inspection

Vessel No.: AC- 340
Vessel Name: Propane Condenser

P&ID No: STWT-P01-015

DBI Incorporated
Lincoln Nebraska
4223 Progressive Avenue.Lincoln NE 68504.Telephone: 402-467-1818 Fax: 402-467-1766
Omaha Nebraska
2211 S. 156th Circle.Omaha NE 68130.Telephone:402-330-9612.Fax: 402-330-9640
Overland Park Kansas
11660 West 90th.Overland Park KS 66214.Telephone: 913-888-2321 Fax: 913-888-2351

Summary Report

Report Reviewed By: Mitchell Beres

API 510 #30888

Client: Williams Field Services
Location: Stewart Dew Point Hickory, PA

Vessel No.: AC- 340
Vessel Name: Propane Condenser

Inspection Date: 7-23-2012

Type of Inspection: A-Scan Baseline Inspection

Note: An A-Scan baseline inspection was performed on the AC- 340 Propane Condenser. The AC-340 Propane Condenser meets MAWP of 300 psi with a remaining service life of 20+ years. The long and short term corrosion rates were determined using the nominal thickness of the vessel.

Next UT Inspection: **7/22/2017** **API 510 para. 6.4**

Next Visual Inspection: **7/22/2017**

								Short Term Corrosion	Long Term Corrosion	Remaining Life
	TNom	**Top**	**Bottom**	**North**	**South**	**East**	**West**	**Rate**	**Rate**	**(Years)**
TML 1	0.500	0.518	0.495					0.001	0.001	20+
TML 2	0.500	0.502	0.503					<1 mil	<1 mil	20+
TML 3	0.500	0.506	0.503					<1 mil	<1 mil	20+

Client: Williams Field Services
Location: Stewart Dew Point Hickory, PA

Vessel No.: AC- 340
Vessel Name: Propane Condenser

Vessel Parameters

Design Pressure (MAWP):	300 psi	North Head Material:	SA-516-70
Design Temperature:	225 F	North Head Type:	Flat
Operating Pressure:	215 psi	Allowable Stress:	20,000
Operating Temperature:	167 F	Joint Efficiency:	Corner Joint
Diameter: I.D or O.D	Fr 5.8138", Bk 9.875"	South Head Material:	SA-516-70
Length S/S:	12' 11"	South Head Type:	Flat
Shell Material:	None	Allowable Stress:	20,000
Allowable Stress:	None	Joint Efficiency:	Corner Joint
Joint Efficiency:	None	Date Manufactured:	2008
Corrosion Allowance:	.125	In Service Date:	2008

ASME CODE EDITION USED FOR CALCULATIONS
ASME Section VIII, Division 1. 2001 Edition

Paint Information

Average paint coating thickness:	N/A	Thickness measured with paint:	N/A
Paint Multiplier:	N/A	Thickness measured without paint:	N/A

Name Plate Information

U1A Available:	Yes	ASME stamp present on vessel:	Yes
Name Plate present:	Yes	Rubbing taken:	Digital Photo

Client: Williams Field Services
Location: Stewart Dew Point Hickory, PA

Vessel No.: AC- 340
Vessel Name: Propane Condenser

Vessel Data

Vessel Class:	2	Date Manufactured:	2008
Manufactures Serial #:	2008B5331-A	In Service Date:	2008
Product in Vessel:	Propane	Date of ASME VIII Vessel Mfg. under:	2004
P&ID Drawing #:	015	Code Cases:	N/A
P&ID Prepared By:	Laurel Mountain Midstream, LLC	Addenda:	2006 ADD
Manufacturer:	SmithCo	National Board Number:	11573
Vessel Length S/S:	12' 11"	Vessel Insulated:	No
Diameter I.D or O.D:	Fr 5.8138", Bk 9.875"	Describe openings (if any):	N/A
No. of Shell Sections:	N/A	ANSI Flange Rating:	300 #
No. of Nozzles:	4	Vessel Orientation:	Horizontal
Design Pressure (MAWP):	300 psi	Operating Pressure:	215 psi
Design Temperature:	225 F	Operating Temperature:	167 F
North Head Type:	Flat	South Head Type:	Flat
North Head Material:	SA-516-70	South Head Material:	SA-516-70
North Head Weld Type:	Corner Joint	South Head Weld Type:	Corner Joint
Shell Material:	None	Shell Weld Type:	N/A
Radiography:	N/A	Hydrostatic:	390 psi

Relief Valve Information

Relief Valve Tag Number:	330	Relief Valve Pressure Setting:	300 psi
Relief Valve Test Date:	9/10	Relief Valve Size:	1" x 1"

DBI, Inc. Quality Inspection and Consulting Services

Reliable...Responsive...Resourceful...Proactive

PRESSURE VESSEL EXTERNAL INSPECTION

Client:	Williams Field Services	Date Inspected:	7-23-2012
Location:	Stewart Dew Point Hickory, PA	Inspector(s):	Mike Troyer
Vessel No.:	AC- 340		
Vessel Name:	Propane Condenser	Signature:	

NAME PLATE

Item Inspected Yes No NA = Not Applicable	Yes	No	N/A	Comments:
Name Plate present & legible	☒	☐	☐	Good condition
National Board #	☒	☐	☐	11573
Manufacturer	☒	☐	☐	SmithCo
Serial #/ Year Built	☒	☐	☐	2008B5331-A/ 2008
Repair or Rerate Name Plate	☐	☐	☒	N/A

FOUNDATION

Concrete condition (spalling, cracks)	☒	☐	☐	None noted
Foundation settling	☒	☐	☐	Appears level
Coating condition	☐	☐	☒	N/A
Cradle supports (moisture, cracks)	☒	☐	☐	None noted

SUPPORTS

Describe type (legs, saddle, etc.)	☒	☐	☐	Legs
Corrosion, pitting (describe)	☒	☐	☐	None noted
Weld condition	☒	☐	☐	Good condition
Paint condition	☒	☐	☐	No paint failure noted
Anchor bolts (tightness & corrosion	☒	☐	☐	Appears tight
Insulation deterioration	☐	☐	☒	N/A

SHELL

Corrosion, pitting (describe)	☐	☐	☒	N/A
Bulges/ Blisters/ Deformations	☐	☐	☒	N/A
Weld condition	☐	☐	☒	N/A
Paint condition	☐	☐	☒	N/A
Insulation deterioration	☐	☐	☒	N/A
Biological growth	☐	☐	☒	N/A
UT Measurements	☐	☐	☒	N/A

HEADS

Item Inspected Yes No NA = Not Applicable	Yes	No	N/A	Comments:
Corrosion, pitting (describe)	☒	☐	☐	None noted
Bulges/ Blisters/ Deformations	☒	☐	☐	None noted
Weld condition	☒	☐	☐	Good condition
Paint condition	☒	☐	☐	No paint failure noted
Insulation deterioration	☐	☐	☒	N/A
UT Measurements	☒	☐	☐	See autocad drawing

MANWAYS & NOZZLES

Corrosion, pitting (describe)	☒	☐	☐	None noted
Weld condition	☒	☐	☐	Good condition
Flange condition	☒	☐	☐	Good condition
Bolting condition	☒	☐	☐	Good condition
Repad condition	☐	☐	☒	N/A
Insulation deterioration	☐	☐	☒	N/A
UT Measurements	☒	☐	☐	See autocad drawing

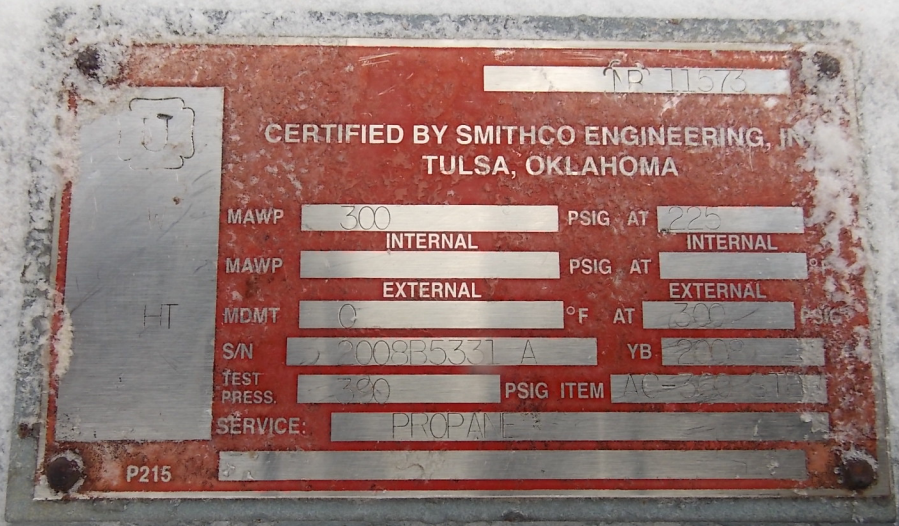
APPURTENANCES

Grounding (tightness & corrosion)	☒	☐	☐	Ground connection is tight
Gauges, Sight glass (damage)	☒	☐	☐	No damage noted
Relief Valve #/ Size/ Set Pressure	☒	☐	☐	330/ 1" x 1"/ 300 psi

LADDERS, STAIRS, PLATFORMS

Corroded, Broken Parts	☒	☐	☐	None noted
Paint condition	☒	☐	☐	No paint failure noted
Wear (ladder rungs, stair treads)	☒	☐	☐	None noted
Handrails secure	☒	☐	☐	Handrails are secure
Flooring condition	☒	☐	☐	Good condition
Tightness (bolts, tie down clips)	☒	☐	☐	Appear tight
Attachment welds	☒	☐	☐	Good condition
Corrosion, pitting (describe)	☒	☐	☐	None noted

ADDITIONAL COMMENTS:


NB 11573
CERTIFIED BY SMITHCO ENGINEERING, IN
TULSA, OKLAHOMA
MAWP 300 PSIG AT 225
INTERNAL INTERNAL
MAWP PSIG AT
EXTERNAL EXTERNAL
MDMT 0 °F AT 30
S/N 2008B5331 A YB
TEST PRESS. 330 PSIG ITEM
SERVICE: PROPANE
P215

FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS
(Alternative Form for Single Chamber, Completely Shop or Field Fabricated Vessels Only)
As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and certified by SMITHCO Engineering, Inc., 6211 S. 39th W. Avenue, Tulsa, Oklahoma 74132 (Name and address of manufacturer)
2. Manufactured for PREMIER INDUSTRIES, INC Harvey, LA (Name and address of purchaser)
3. Location of installation Premier Industries, Inc. unknown (Name and address)
4. Type Horiz(Non-Cir) (Horiz. or vert. tank) | 2008B-5331-A (Mfgr's serial No.) | ---------- (CRN) | 2008B-5331 (Drawing No.) | 11573 (Nat'l Bd. No.) | 2008 (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 2007 (Year)

to ____ (Addenda (Date)) ____ (Code Case Nos.) -- (Special Service per UG-120(d))

6. Shell: Tube & Plug Sheets: SA-516 GR-70 N (Matl. (Spec. No., Grade)) | Fr 1.000/ Bk 1.250 (Nom. Thk. (in.)) | .1250 (Corr. Allow. (in.)) | Fr 0' 5.8138"/Bk 0' 9.8750" (Diam. I.D. (ft. & in.)) | 12' 11.0000" (Length (overall) (ft. & in.))
7. Seams: Corner Joint (Long. (Welded., Dbl., Sngl., Lap, Butt)) | ---- (R.T. (Spot or Full)) | 100 (Eff(%)) | 1150 (H.T. Temp. (°F)) | 60min. (Time (hr)) | ---- (Girth (Welded, Dbl., Spot., Lap, Butt)) | ---- (R.T. (Spot, Partial or Full)) | 1 (No. of Courses)
8. Heads: (a) Matl. (a) Covers: SA-516 GR-70 N (Spec. No., Grade) b) Matl. (b) Ends: SA-516 GR-70 N (Spec. No., Grade)

	Location (Top, Bottom, Ends	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	Fr/Bk	0.500/0.500	0.1250	--	--	--	--	--	2.8125/1.8750 x 155.0000	Flat
(b)	Fr/Bk	0.500/0.500	0.1250	--	--	--	--	--	2.8125/1.8750 x 9.3125/9.3125	Flat

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

9. MAWP 300 (internal) ____ (external) psi at max. temp 225 (internal) ____ (external) °F

Min. design metal temp. 0 °F at 300 psi. Hydro., ~~pneu., or comb~~. test pressure 390 psi

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diameter or Size	Type	Material	Nominal Thickness	Reinforcement Material	How Attached	Location
Inlet	2	4"300/160	RFWN	SA-105/SA-106B	0.531	Integral	UW-16.1(a)	Front Head
Outlet	2	2"300/160	RFWN	SA-105/	0.344	Integral	UW-16.1(a)	Front Head
Vent/Drain	2	1.0	6000CPLG	SA-105		Integral	UW-16.1(a)	Back Head

11. Supports: Skirts No (Yes or No) Lugs ____ (No.) Legs 4 (No.) Other ____ (Describe) Attached Welded to covers (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:

(Name of part, item number, Mfgr's name and identifying stamp)

Impact testing exempt per: UG-20(f) Item: AC-360 STEW Service: PROPANE
Stay Plate: Front(1)SA-516 GR-70 0.5000 x 0.1250 x 153.6875 x 2.8125
Tubes: SA-214 WLD- 333 x 1.00" x .083" x 42.0000'-Straight
Constructed in conformance with appendix 28

CERTIFICATE OF SHOP/FIELD 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. 4175 expires February 28th, 2009.

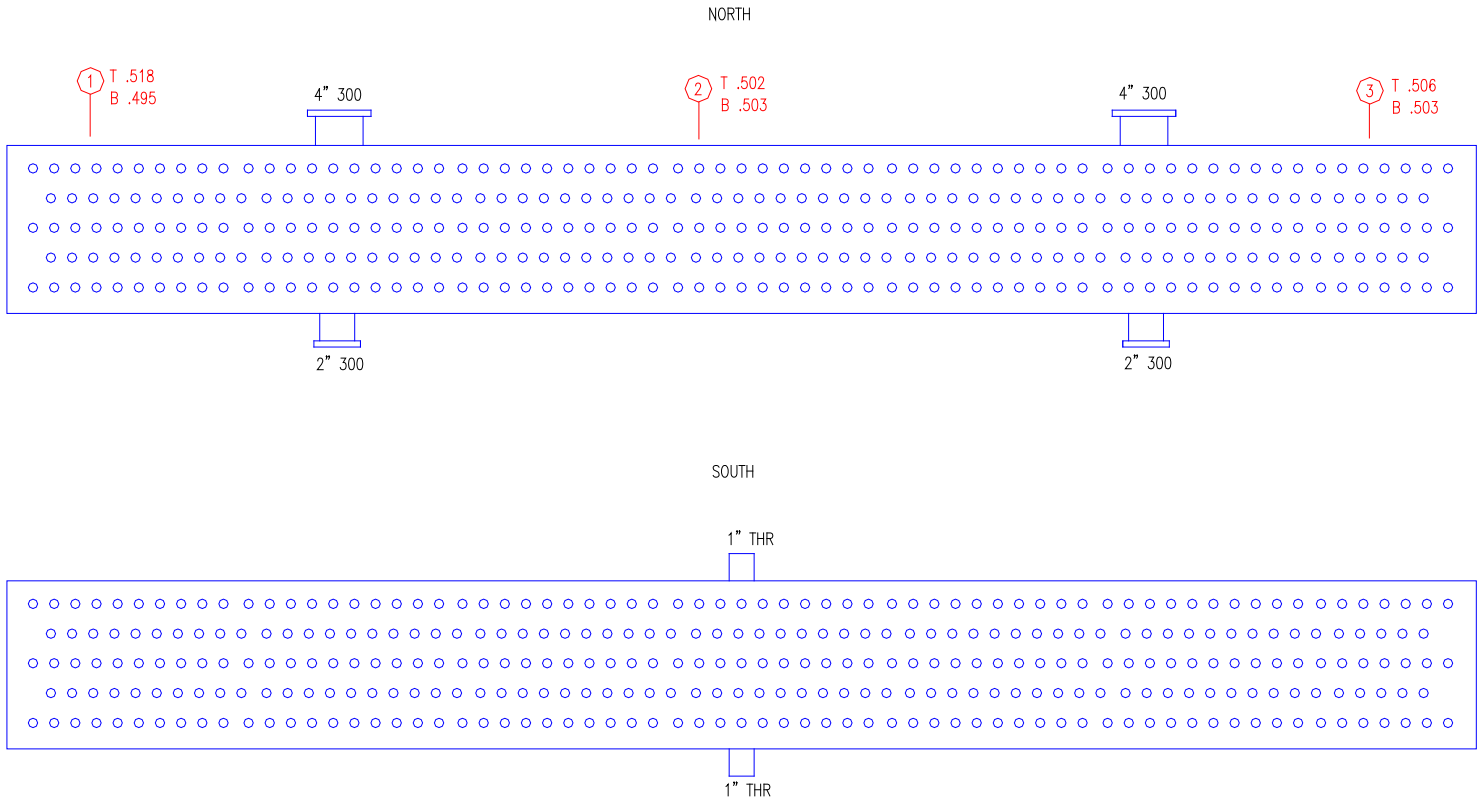
Date 09-18-2008 Co. name SMITHCO Engineering, Inc. (Manufacturer) Signed V. Cates (Representative)

CERTIFICATE OF SHOP/FIELD INSPECTION

Vessel constructed by SMITHCO Engineering, Inc. at Tulsa, Oklahoma

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Province of Oklahoma and employed by Seneca Insurance Company of Texas have inspected the component described in this Manufacturer's Data Report on 9/18 20 08, 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. Futhermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 10/22/08 Signed ____ (Authorized Inspector) Commissions NB12736 A OK914 (Nat'l Board (incl. endorsements), State, Prov. and No.)



NOTES

1. P&ID NO: STWT-P01-015
2.
3.
4.
5.
6.

CLIENT: Williams Field Services	**DBI, Incorporated** 5330 N. 57th Street Lincoln, Nebraska 68507
LOCATION: Stewart Dew Point Hickory. PA	
INSPECTION DATE: 7-23-2012	ACAD DWG. FILE: AC-340
VESSEL No: AC-340	DWN BY: MCS / CKD BY:
VESSEL ID: Propane Condenser	MECHANICAL INTEGRITY INSPECTION