

Pressure Vessel Visual Inspection Report

Equip Id 66160160 **SAP ID** 66160160 **Asset Type** Drum
Plant Lloydminster Production **Unit** Mannville/Swimming **System** N/A
Description DRUM, FLARE KNOCKOUT
FLOC H1-01-004-00006 **LSD** 14-18-050-06W4

Insp Date Aug 15, 2018 **Inspector** Luke Newport **Insp Type** VIExt
Company Inspector **Confidence** Medium

Details

ID	Description	Condition	Location	NCR	Comment
V1	General Other (Please Explain)	Fair			Nameplate in place and legible. Alberta CRN attached.
V7	Heads	N/A			Fully clad
V9	Electrical Ground	Fair			Acceptable, through piles
V14	Shell	N/A			Fully clad
V22	Foundation	Fair			Vessel appeared to be adequately supported by two saddles which were skid mounted with four anchor bolts. The skid sits on piles.
V37	Bolting	Fair			B7 & 2H
V41	Insulation Other (Please explain)	Fair			Acceptable
V51	Relief Devices Other (Please explain)	N/A			Flare drum is open to atmosphere. There is a valve on the outlet of the flare and when in operation this valve is car-sealed opened and documented as per operations.

Summary

Location: Vermilion 14-18-050-06w4 Battery
Eq# 66160160, Flare KO Drum, White Ram Oilfield Services LTD. serial # WRM 150

See internal inspection comments for external comments and recommendations.

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FLOC H1-01-004-00006 **LSD** 14-18-050-06W4

Insp Date Aug 15, 2018 **Inspector** Luke Newport **Insp Type** VInt
Company Inspector **Confidence** High

Details

ID	Description	Condition	Location	NCR	Comment
V7	Heads	Fair			Acceptable
V8	Welds	Fair			Acceptable
V9	Nozzles	Fair			Acceptable
V10	Shell	Fair			Some pitting on the bottom shell of the vessel from the 5-7 o'clock position with the deepest pitting measured at 0.065" which is below the 0.125" C.A. for the vessel.
V21	Internals Other (Please explain)	Fair			Heating Coil - no concerns

Summary

Location: Vermilion 14-18-050-06w4 Battery
Eq# 66160160, Flare KO Drum, White Ram Oilfield Services LTD. serial # WRM 150

Summary:

An external and internal visual inspection was performed to verify the vessels integrity. The vessel was found to be generally in fair condition and suitable for continued service.

Recommendations:

- The vessel should be externally and internally inspected in 5 years.

Cc: Cory Bautz



66160160 Equipment Detail

Plant	Lloydminster Production	Unit	Mannville/Swimming	System	N/A
SAP ID	66160160	Equip Id	66160160	Asset Type	Pressure Vessel
Description	DRUM, FLARE KNOCKOUT				
Manuf.	WHITE RAM OILFILED	Serial #	WRM150	Year Built	1986
Const Code		Int.Access		Prov #	211604
Cost Ctr		FLOC	H1-01-004-00006	LSD	14-18-050-06W4
Time Based	Y	Opt RI Grp	PresVes Grade 2b	CRN	
User Status	ISF	Sys Status	INST	Active	Y

Equipment Protection

Inspections

Insp Type	Method	Insp Date	Inspection	Company	Confidence
VIInt		Aug 15, 2018	Luke Newport	Inspector	High
VIExt		Aug 15, 2018	Luke Newport	Inspector	Medium
VIInt		Jul 23, 2014	Ray Trachuk	Husky Energy	Low
VIExt		Jul 23, 2014	Ray Trachuk	Husky Energy	Medium

Inspection Plan

Planned By: Luke Newport

Planning Date: Aug 27, 2018

Dmg Mech	Method	Due Date	Freq	SAP Not #	SAP W.O. #	PREP
External Deterioration	VI-Ext	Aug 14, 2023	5			
Internal Corrosion	VI-Int	Aug 14, 2023	5			Visual external, visual internal

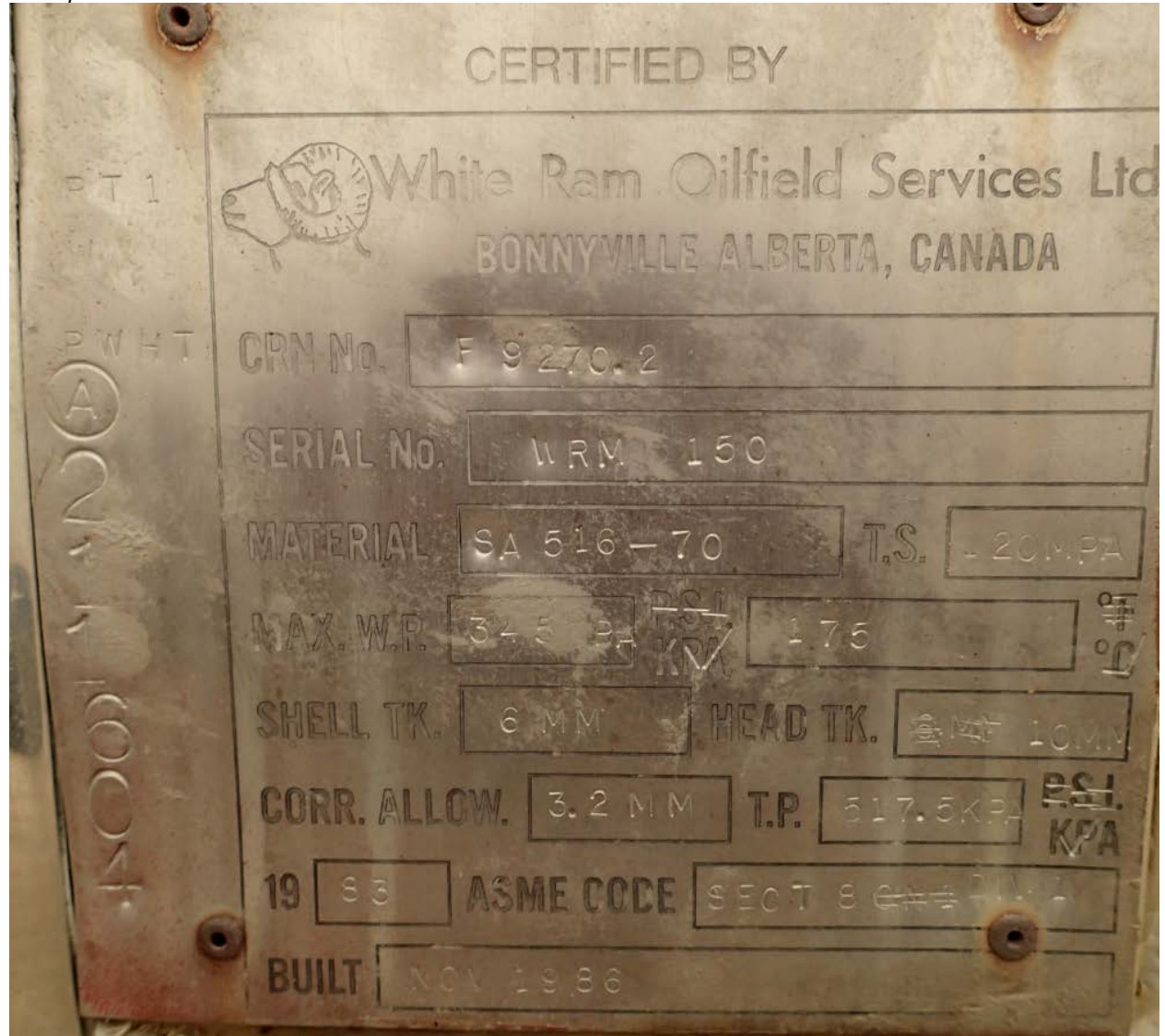
PHOTOS

GENERAL

Inspection Date	August 15, 2018	Inspected By	Luke Newport	Equipment #	66160160
Plant	HOG	Op Unit	Vermilion	LSD	14-08-050-06w4

PHOTOS

Nameplate



PHOTOS

GENERAL

Inspection Date	August 15, 2018	Inspected By	Luke Newport	Equipment #	66160160
Plant	HOG	Op Unit	Vermilion	LSD	14-08-050-06w4

PHOTOS



General external overview of the vessel.



General external overview of the vessel.






The valve on the outlet of the vessel going to the flare which is car-sealed open in normal operation.



The manway flange.

PHOTOS

GENERAL					
Inspection Date	August 15, 2018	Inspected By	Luke Newport	Equipment #	66160160
Plant	HOG	Op Unit	Vermilion	LSD	14-08-050-06w4

PHOTOS	
 <p>Inside the vessel looking at the south head.</p>	 <p><i>Internal picture of the north head.</i></p>
 <p>The pitting/corrosion that had occurred in the bottom portion of the shell.</p>	