LUBE 360 DIAGNOSTICS

OIL ANALYSIS REPORT

Sample Rating Trend

Jul2023   Jul2023

NORMAL

Machine Id
WNMU0101HM0002187
Component
Hydraulic System
Fluid
FUTERRA HF 46 (--- GAL)

DIAGNOSIS

Recommendation
Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as (ONE-OFFS) FUTERRA HF 46, however, a fluid match indicates that this fluid is ISO 46 AW Hydraulic Oil. Please confirm the oil type and grade on your next sample. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MOB 2 test kits, this testkit includes Particle Count to determine the ISO cleanliness of the fluid.

Wear
All component wear rates are normal.

Contamination
There is no indication of any contamination in the component(unconfirmed).

Fluid Condition
Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION	method	limit/base	current	history1	history2
Sample Number	Client Info		**PC0073377**	PC0073378	---
Sample Date	Client Info		**20 Jul 2023**	20 Jul 2023	---
Machine Age	hrs	Client Info	**1**	1	---
Oil Age	hrs	Client Info	**0**	0	---
Oil Changed		Client Info	**N/A**	N/A	---
Sample Status			**NORMAL**	NORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	**<1**	<1	---
Chromium	ppm	ASTM D5185(m)	>20	**0**	0	---
Nickel	ppm	ASTM D5185(m)	>20	**<1**	<1	---
Titanium	ppm	ASTM D5185(m)		**0**	0	---
Silver	ppm	ASTM D5185(m)		**0**	0	---
Aluminum	ppm	ASTM D5185(m)	>20	**<1**	<1	---
Lead	ppm	ASTM D5185(m)	>20	**<1**	2	---
Copper	ppm	ASTM D5185(m)	>20	**1**	<1	---
Tin	ppm	ASTM D5185(m)	>20	**0**	0	---
Antimony	ppm	ASTM D5185(m)		**0**	0	---
Vanadium	ppm	ASTM D5185(m)		**0**	0	---
Beryllium	ppm	ASTM D5185(m)		**0**	0	---
Cadmium	ppm	ASTM D5185(m)		**0**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**<1**	<1	---
Barium	ppm	ASTM D5185(m)		**0**	0	---
Molybdenum	ppm	ASTM D5185(m)		**0**	0	---
Manganese	ppm	ASTM D5185(m)		**<1**	<1	---
Magnesium	ppm	ASTM D5185(m)		**<1**	<1	---
Calcium	ppm	ASTM D5185(m)		**33**	2	---
Phosphorus	ppm	ASTM D5185(m)		**380**	422	---
Zinc	ppm	ASTM D5185(m)		**222**	10	---
Sulfur	ppm	ASTM D5185(m)		**789**	713	---
Lithium	ppm	ASTM D5185(m)		**<1**	<1	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	**<1**	<1	---
Sodium	ppm	ASTM D5185(m)		**<1**	<1	---
Potassium	ppm	ASTM D5185(m)	>20	**<1**	0	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	---
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	---
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	---
Silt	scalar	Visual*	NONE	**NONE**	NONE	---
Debris	scalar	Visual*	NONE	**VLITE**	NONE	---
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	---
Appearance	scalar	Visual*	NORML	**NORML**	NORML	---
Odor	scalar	Visual*	NORML	**NORML**	NORML	---
Emulsified Water	scalar	Visual*	>0.05	**NEG**	NEG	---
Free Water	scalar	Visual*		**NEG**	NEG	---

Viscosity @ 100°C

Viscosity @ 40°C

Additives
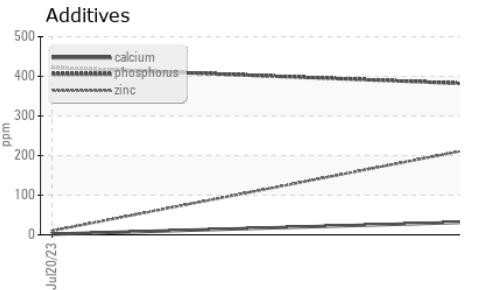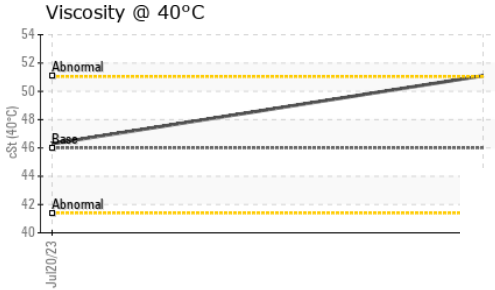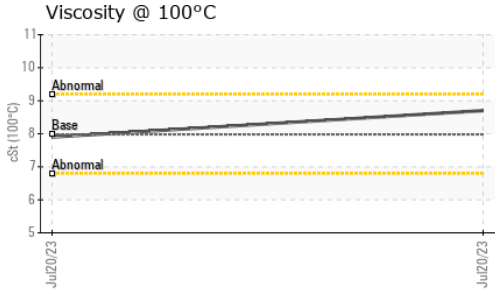
FLUID PROPERTIES

		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46	**51.1**	46.3	---
Visc @ 100°C	cSt	ASTM D7279(m)	7.98	**8.7**	7.9	---
Viscosity Index (VI)	Scale	ASTM D2270*	140	**148**	141	---

SAMPLE IMAGES

	method	limit/base	current	history1	history2
Color					no image
Bottom					no image

GRAPHS

Iron (ppm)

Lead (ppm)

Aluminum (ppm)

Chromium (ppm)

Copper (ppm)

Silicon (ppm)

Viscosity @ 40°C

Additives
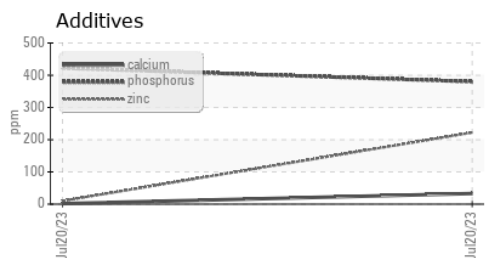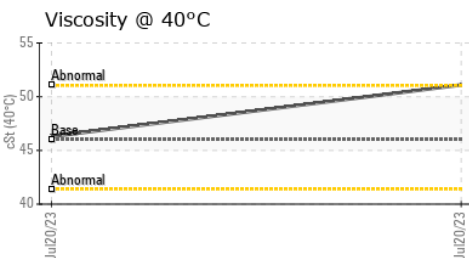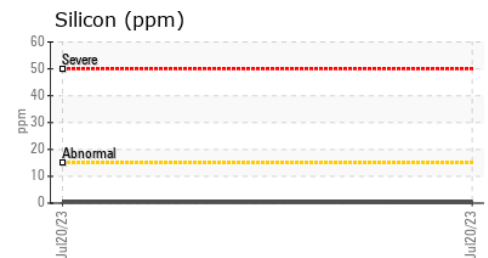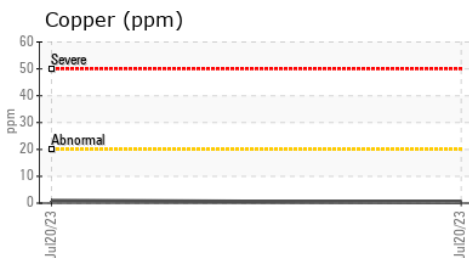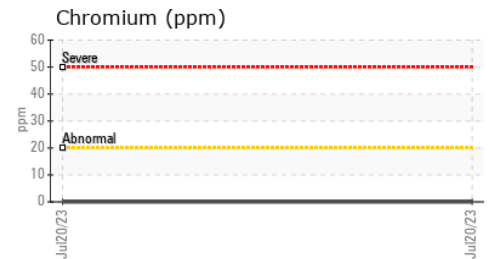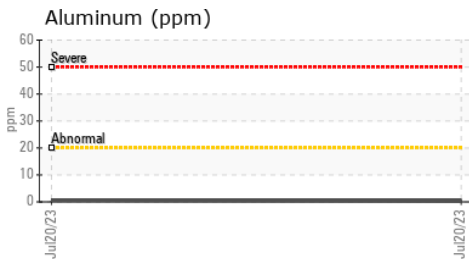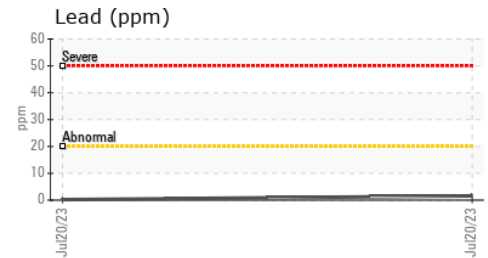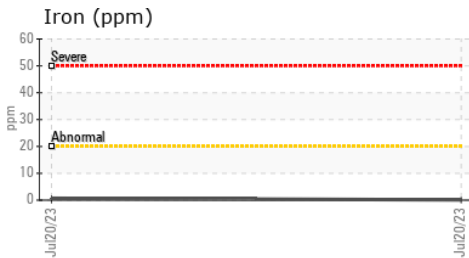
Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Sample No. : PC0073377   **Received** : 28 Jul 2023

Lab Number : 02572995   **Diagnosed** : 31 Jul 2023

Unique Number : 5618046   **Diagnostician** : Kevin Marson

Test Package : MOB 1 (Additional Tests: KV100, VI)

To discuss this sample report, contact Customer Service at 1-800-268-2131.

Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.

Validity of results and interpretation are based on the sample and information as supplied.

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