



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
HAMM HD110VVHF ROLLER RA509 (S/N H2090274)

Component
Hydraulic System

Fluid
DURALENE Trans-Flo UTF (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0675011	WC0615350	---
Sample Date		Client Info		02 Jan 2024	25 Jan 2022	---
Machine Age	hrs	Client Info		4640	3917	---
Oil Age	hrs	Client Info		357	0	---
Filter Age	hrs	Client Info		357	1000	---
Oil Changed		Client Info		Changed	Not Changd	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	ATTENTION	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	18	16	---
Chromium	ppm	ASTM D5185m	>10	0	<1	---
Nickel	ppm	ASTM D5185m	>10	0	<1	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>10	1	<1	---
Lead	ppm	ASTM D5185m	>10	3	4	---
Copper	ppm	ASTM D5185m	>75	7	8	---
Tin	ppm	ASTM D5185m	>10	0	<1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

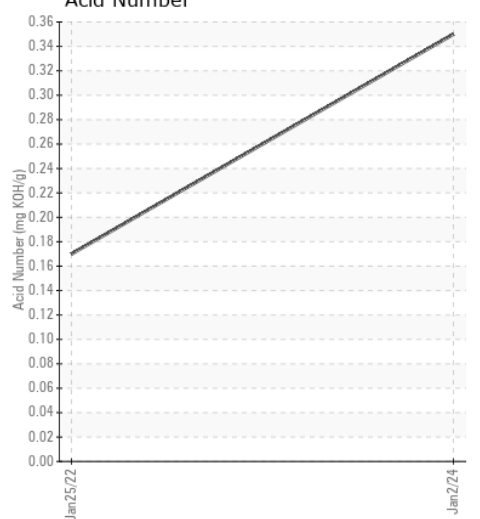
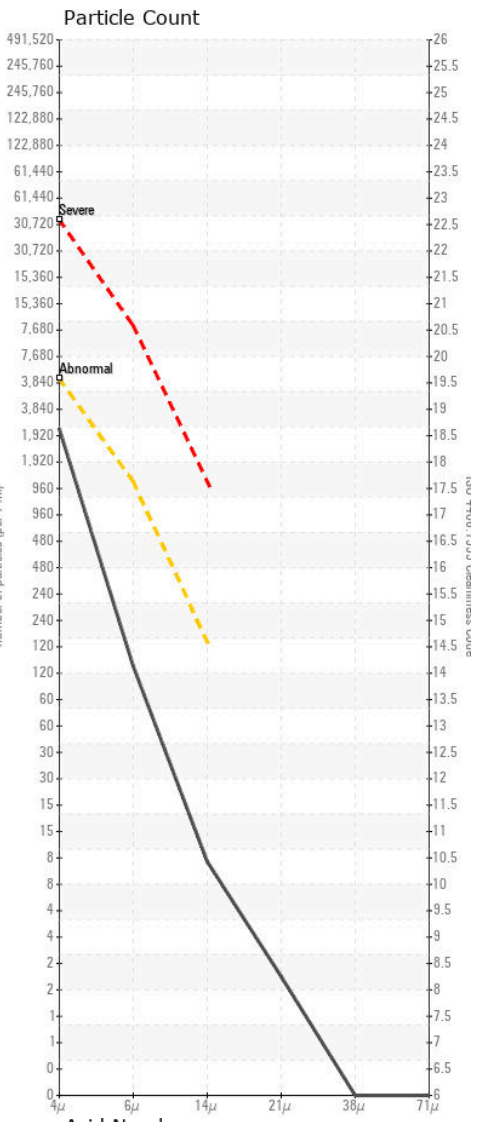
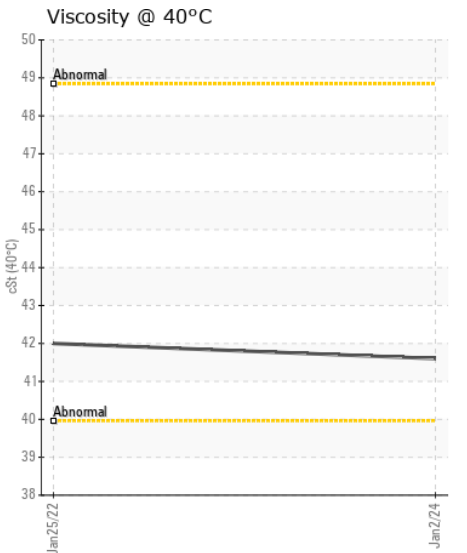
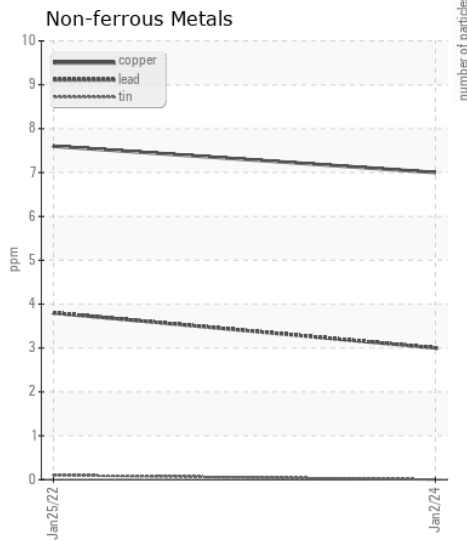
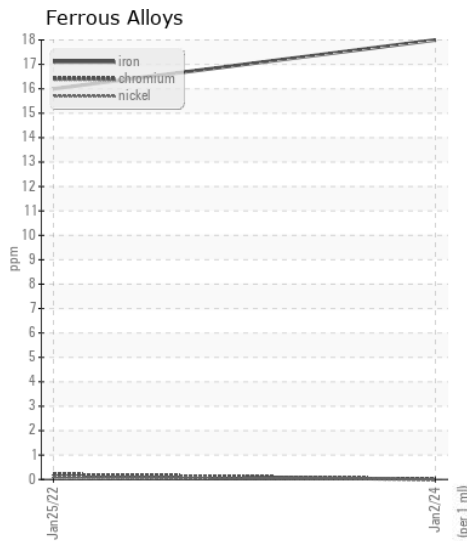
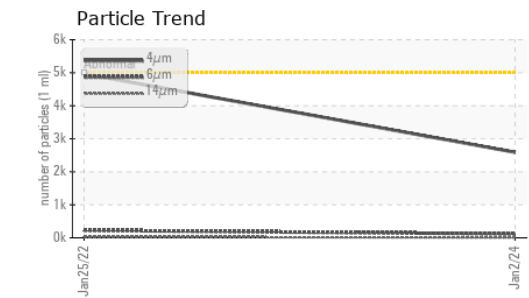
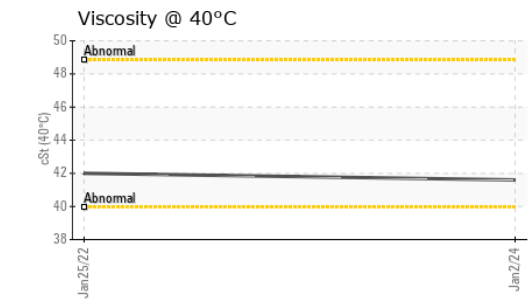
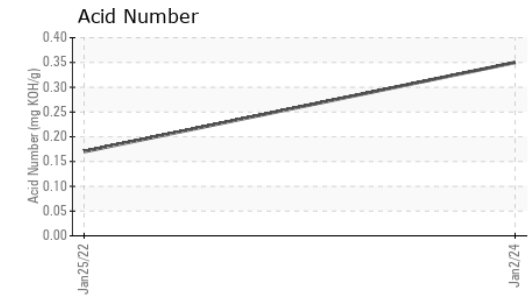
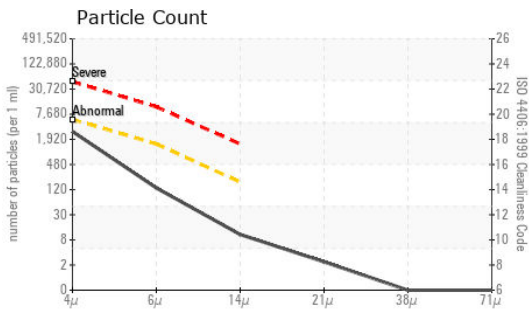
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the component.

Silicon	ppm	ASTM D5185m	>20	4	4	---
Potassium	ppm	ASTM D5185m	>20	2	<1	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>5000	2591	4968	---
Particles >6µm		ASTM D7647	>1300	116	227	---
Particles >14µm		ASTM D7647	>160	9	24	---
Particles >21µm		ASTM D7647	>40	2	6	---
Particles >38µm		ASTM D7647	>10	0	0	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	19/14/10	19/15/12	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	LIGHT	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	---

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<1	0	---
Boron	ppm	ASTM D5185m		9	▲ 8	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		<1	<1	---
Manganese	ppm	ASTM D5185m		0	<1	---
Magnesium	ppm	ASTM D5185m		13	0	---
Calcium	ppm	ASTM D5185m		479	▲ 214	---
Phosphorus	ppm	ASTM D5185m		315	▲ 268	---
Zinc	ppm	ASTM D5185m		364	▲ 287	---
Sulfur	ppm	ASTM D5185m		2212	▲ 1915	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.35	0.17	---
Visc @ 40°C	cSt	ASTM D445		41.6	42.0	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0675011 **Received** : 17 Jan 2024
Lab Number : 06062578 **Diagnosed** : 19 Jan 2024
Unique Number : 10833960 **Diagnostician** : Jonathan Hester
Test Package : CONST

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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