



OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
BENDER 2

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 32 (360 LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. We recommend an early resample to monitor this condition.

Wear

The copper level is abnormal. All other component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			KFS0002822	---	---
Sample Date	Client Info			15 Jun 2023	---	---
Machine Age	hrs	Client Info		0	---	---
Oil Age	hrs	Client Info		0	---	---
Oil Changed	Client Info			N/A	---	---
Sample Status				ABNORMAL	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.05	NEG	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	<1	---	---
Chromium	ppm	ASTM D5185m	>20	0	---	---
Nickel	ppm	ASTM D5185m	>20	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>20	0	---	---
Lead	ppm	ASTM D5185m	>20	<1	---	---
Copper	ppm	ASTM D5185m	>20	▲ 98	---	---
Tin	ppm	ASTM D5185m	>20	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
Cadmium	ppm	ASTM D5185m		0	---	---

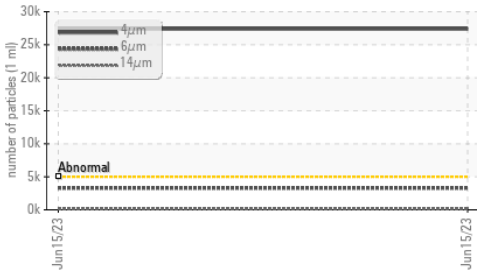
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	0	---	---
Barium	ppm	ASTM D5185m	5	0	---	---
Molybdenum	ppm	ASTM D5185m	5	0	---	---
Manganese	ppm	ASTM D5185m		0	---	---
Magnesium	ppm	ASTM D5185m	25	<1	---	---
Calcium	ppm	ASTM D5185m	200	48	---	---
Phosphorus	ppm	ASTM D5185m	300	336	---	---
Zinc	ppm	ASTM D5185m	370	433	---	---
Sulfur	ppm	ASTM D5185m	2500	1555	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	0	---	---
Sodium	ppm	ASTM D5185m		0	---	---
Potassium	ppm	ASTM D5185m	>20	1	---	---

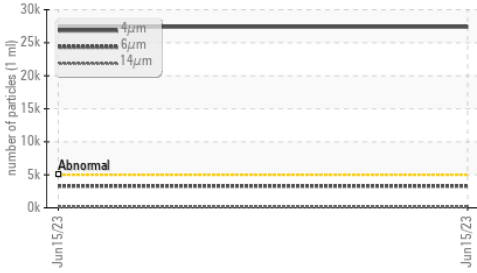
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ 27393	---	---
Particles >6µm		ASTM D7647	>1300	▲ 3299	---	---
Particles >14µm		ASTM D7647	>160	95	---	---
Particles >21µm		ASTM D7647	>40	21	---	---
Particles >38µm		ASTM D7647	>10	1	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 22/19/14	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.27	---	---

Particle Trend



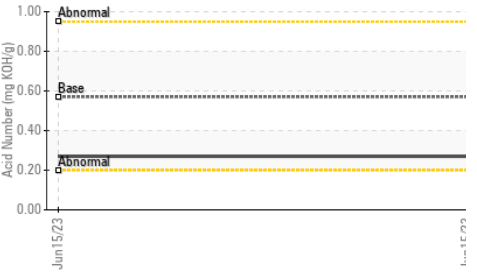
Particle Trend



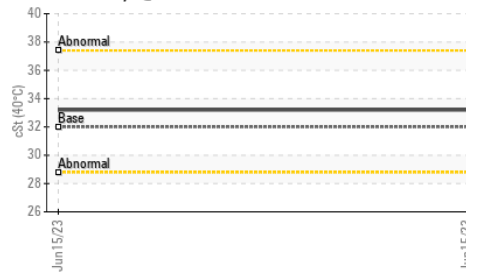
Non-ferrous Metals



Acid Number



Viscosity @ 40°C



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32	33.2	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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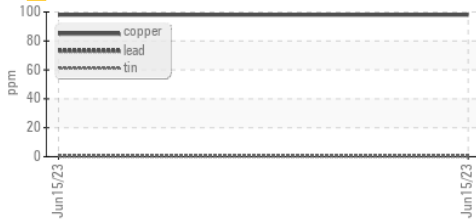
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Bottom		no image	no image

GRAPHS

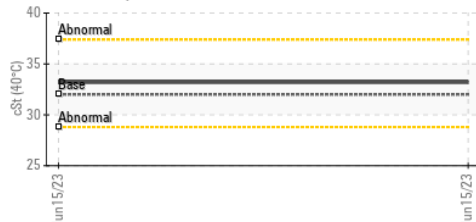
Ferrous Alloys



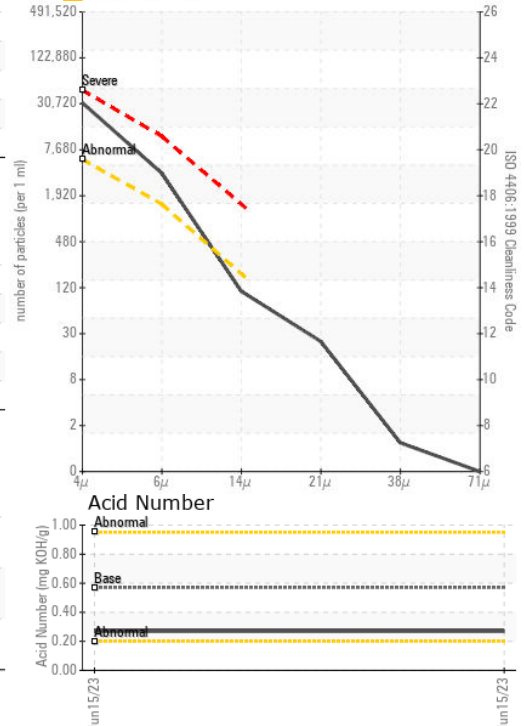
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KFS0002822 **Received** : 19 Jun 2023
Lab Number : 05876722 **Tested** : 20 Jun 2023
Unique Number : 10521825 **Diagnosed** : 20 Jun 2023 - Jonathan Hester
Test Package : IND 2

HIROTECH
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 FAYETTEVILLE, TN
 US 37334
 Contact: BLAZE WEBSTER
 blazewebster@hirotecmfg.com

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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F: