



OIL ANALYSIS REPORT

Sample Rating Trend

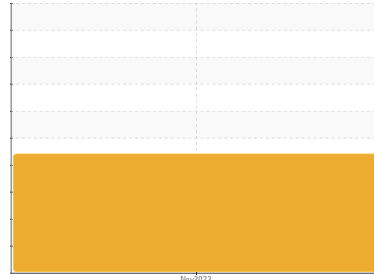
ISO



Machine Id
4250093

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 32 (--- QTS)



DIAGNOSIS

Recommendation

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 32. Please confirm.

Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates (2 to 100 microns in size) present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0753675	---	---
Sample Date	Client Info			15 Nov 2023	---	---
Machine Age	hrs	Client Info		0	---	---
Oil Age	hrs	Client Info		0	---	---
Oil Changed	Client Info			N/A	---	---
Sample Status				SEVERE	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.1	NEG	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	11	---	---
Chromium	ppm	ASTM D5185m	>10	0	---	---
Nickel	ppm	ASTM D5185m	>10	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>10	1	---	---
Lead	ppm	ASTM D5185m	>10	0	---	---
Copper	ppm	ASTM D5185m	>75	2	---	---
Tin	ppm	ASTM D5185m	>10	0	---	---
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	<1	---	---
Manganese	ppm	ASTM D5185m		0	---	---
Magnesium	ppm	ASTM D5185m	25	3	---	---
Calcium	ppm	ASTM D5185m	200	83	---	---
Phosphorus	ppm	ASTM D5185m	300	403	---	---
Zinc	ppm	ASTM D5185m	370	310	---	---
Sulfur	ppm	ASTM D5185m	2500	3909	---	---

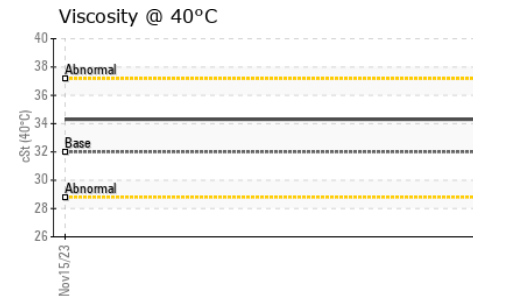
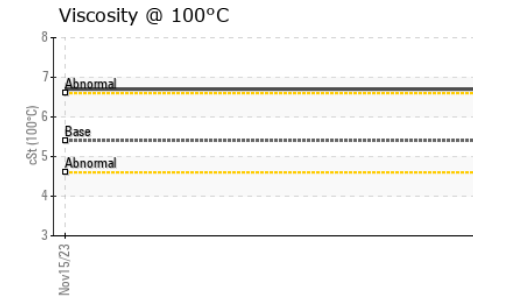
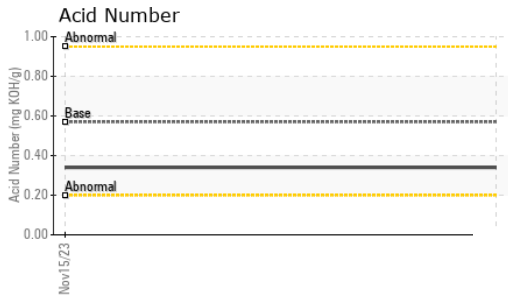
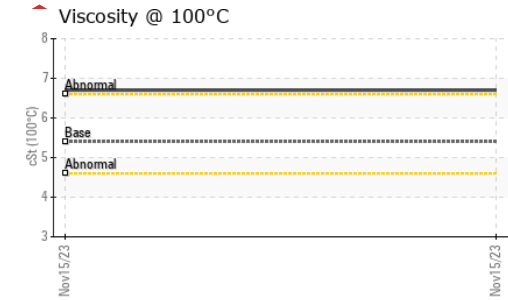
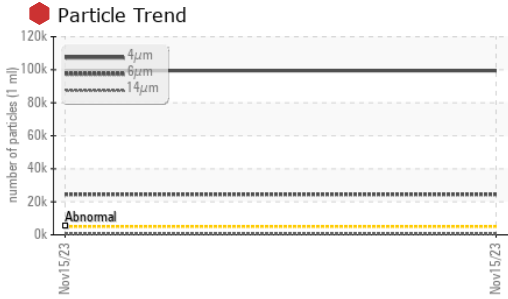
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	1	---	---
Sodium	ppm	ASTM D5185m		0	---	---
Potassium	ppm	ASTM D5185m	>20	<1	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	99427	---	---
Particles >6µm		ASTM D7647	>1300	24507	---	---
Particles >14µm		ASTM D7647	>160	528	---	---
Particles >21µm		ASTM D7647	>40	91	---	---
Particles >38µm		ASTM D7647	>10	4	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	24/22/16	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.34	---	---



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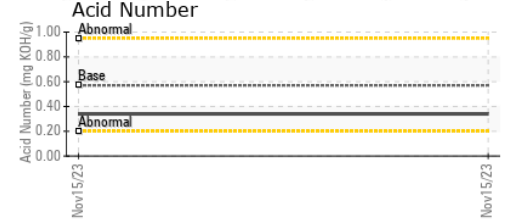
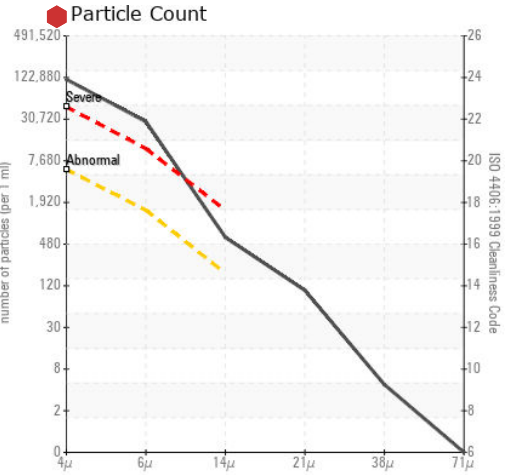
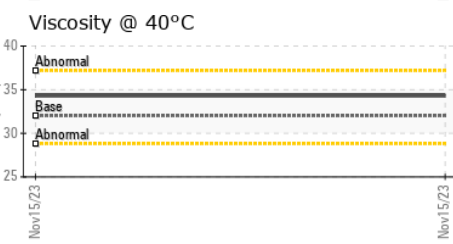
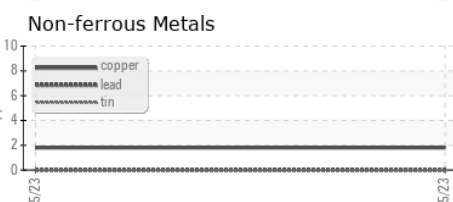
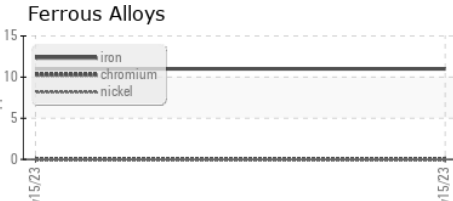


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32	34.3	---
Visc @ 100°C	cSt	ASTM D445	5.4	6.7	---
Viscosity Index (VI)	Scale	ASTM D2270	102	156	---

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

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0753675 **Received** : 17 Jan 2024
Lab Number : 06062657 **Diagnosed** : 18 Jan 2024
Unique Number : 10834039 **Diagnostician** : Wes Davis
Test Package : MOB 2 (Additional Tests: KV100, VI)

HIAB USA - MIDATLANTIC
 18627 STARCREEK DR
 CORNELIUS, NC
 US 28031
 Contact: SWANN MCCLURE
 swann.mcclure@cargotec.com
 T: (704)896-9089
 F: (704)895-4801

Certificate L2367
 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)