



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id  
**HIAB KB21937**  
Component  
**Hydraulic System**  
Fluid  
**AW HYDRAULIC OIL ISO 32 (--- QTS)**

## RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0735086</b>	WC0698815	---
Sample Date		Client Info		<b>06 Dec 2023</b>	17 Nov 2022	---
Machine Age	yrs	Client Info		<b>0</b>	0	---
Oil Age	yrs	Client Info		<b>0</b>	0	---
Filter Age	yrs	Client Info		<b>0</b>	1	---
Oil Changed		Client Info		<b>N/A</b>	Not Changed	---
Filter Changed		Client Info		<b>N/A</b>	Changed	---
Sample Status				<b>ABNORMAL</b>	NORMAL	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	---
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>10	<b>1</b>	0	---
Lead	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Copper	ppm	ASTM D5185m	>75	<b>2</b>	1	---
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

## CONTAMINATION

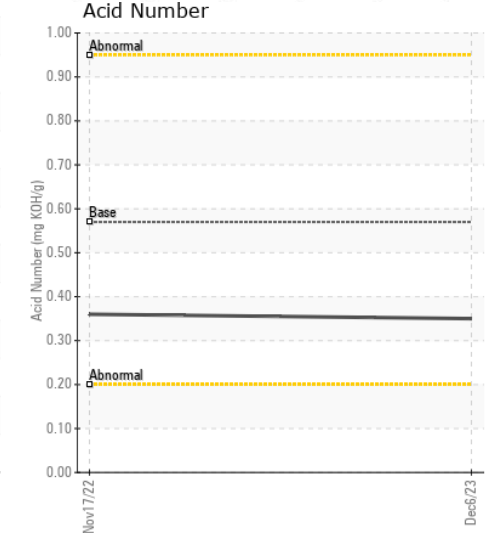
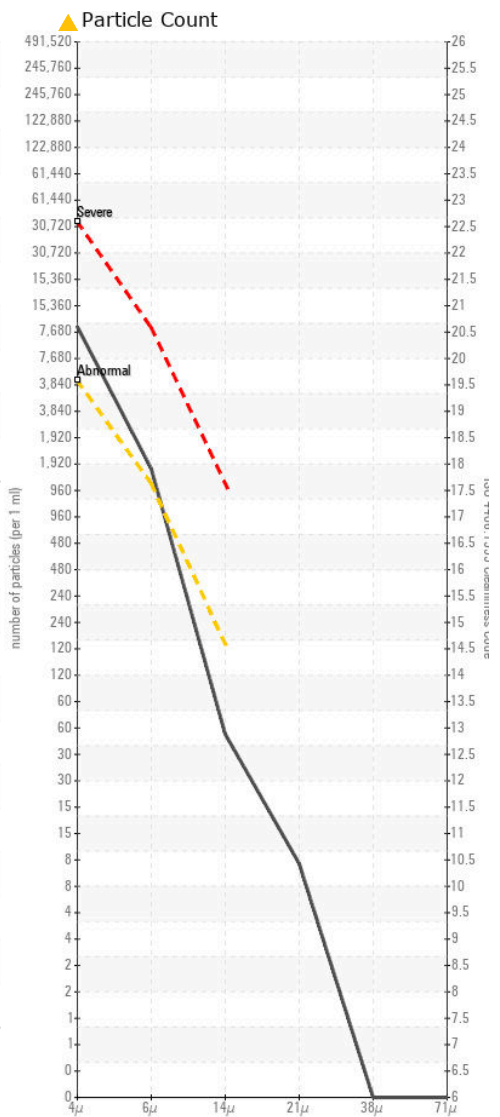
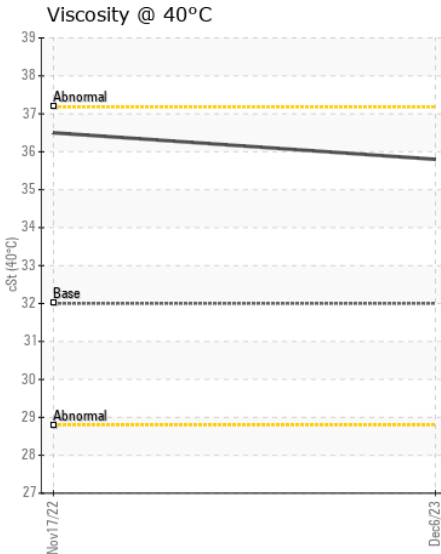
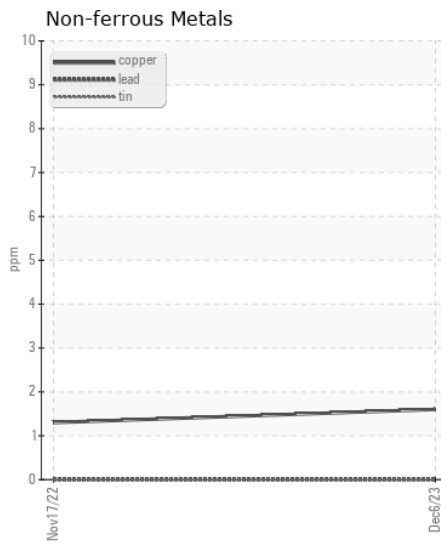
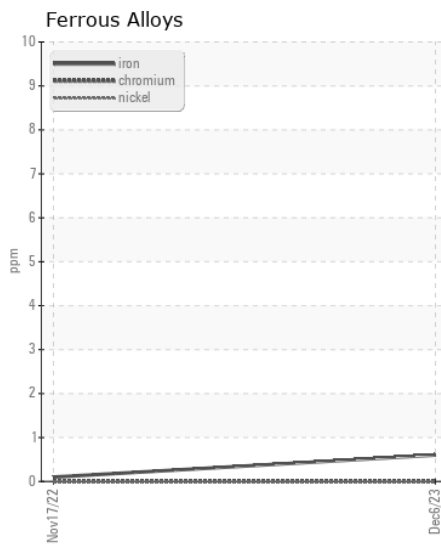
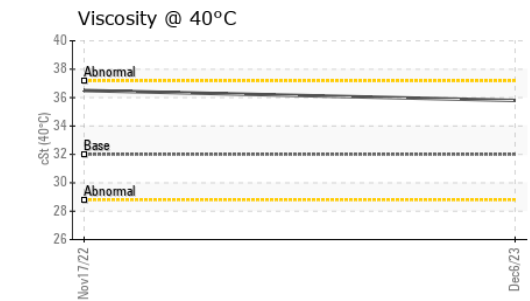
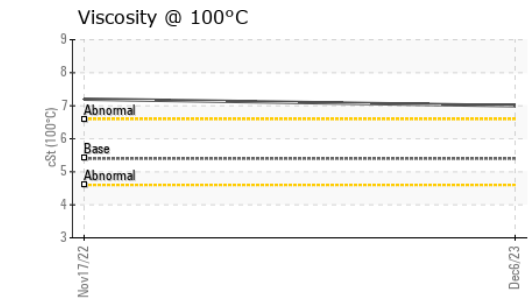
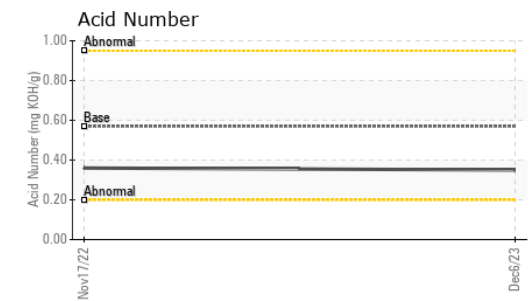
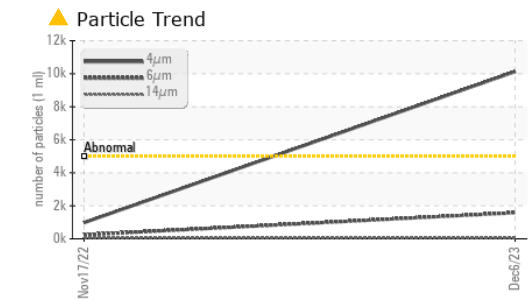
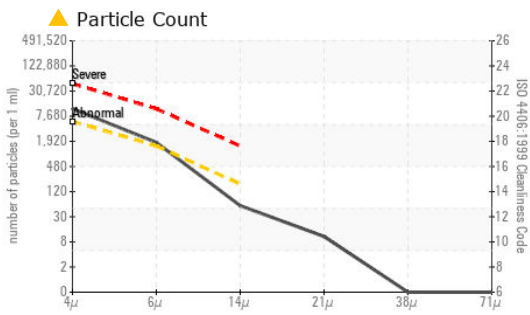
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	---
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	---
Water		WC Method	>0.1	<b>NEG</b>	NEG	---
Particles >4µm		ASTM D7647	>5000	<b>▲ 10131</b>	980	---
Particles >6µm		ASTM D7647	>1300	<b>▲ 1579</b>	242	---
Particles >14µm		ASTM D7647	>160	<b>49</b>	55	---
Particles >21µm		ASTM D7647	>40	<b>9</b>	20	---
Particles >38µm		ASTM D7647	>10	<b>0</b>	2	---
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>▲ 21/18/13</b>	17/15/13	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	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		<b>0</b>	0	---
Boron	ppm	ASTM D5185m	5	<b>0</b>	0	---
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	5	<b>0</b>	0	---
Manganese	ppm	ASTM D5185m		<b>0</b>	0	---
Magnesium	ppm	ASTM D5185m	25	<b>0</b>	0	---
Calcium	ppm	ASTM D5185m	200	<b>52</b>	46	---
Phosphorus	ppm	ASTM D5185m	300	<b>387</b>	334	---
Zinc	ppm	ASTM D5185m	370	<b>447</b>	452	---
Sulfur	ppm	ASTM D5185m	2500	<b>4520</b>	4273	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	<b>0.35</b>	0.36	---
Visc @ 40°C	cSt	ASTM D445	32	<b>35.8</b>	36.5	---
Visc @ 100°C	cSt	ASTM D445	5.4	<b>7</b>	7.2	---
Viscosity Index (VI)	Scale	ASTM D2270	102	<b>160</b>	165	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0735086 **Received** : 17 Jan 2024  
**Lab Number** : 06062649 **Diagnosed** : 19 Jan 2024  
**Unique Number** : 10834031 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: KV100, VI )

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)

**HIAB USA - MIDATLANTIC**

18627 STARCREEK DR  
 CORNELIUS, NC  
 US 28031

Contact: JOHN MORRIS  
 john.morris@hiab.com

T: (704)883-4328  
 F: (704)895-4801