



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Machine Id  
**HIAB 28**

Component  
**Hydraulic System**

Fluid  
**AW HYDRAULIC OIL ISO 46 (--- GAL)**

## 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 46. Please confirm.

## WEAR

All component wear rates are normal.

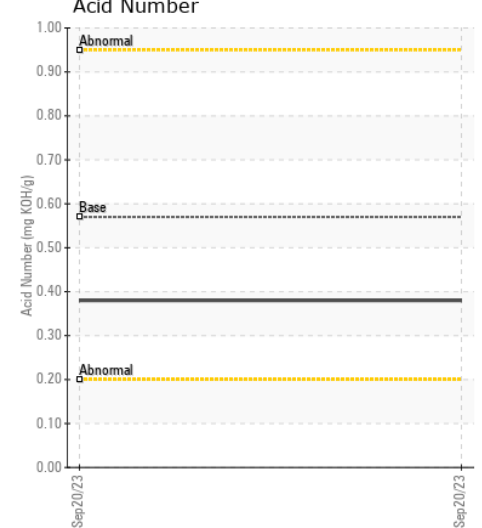
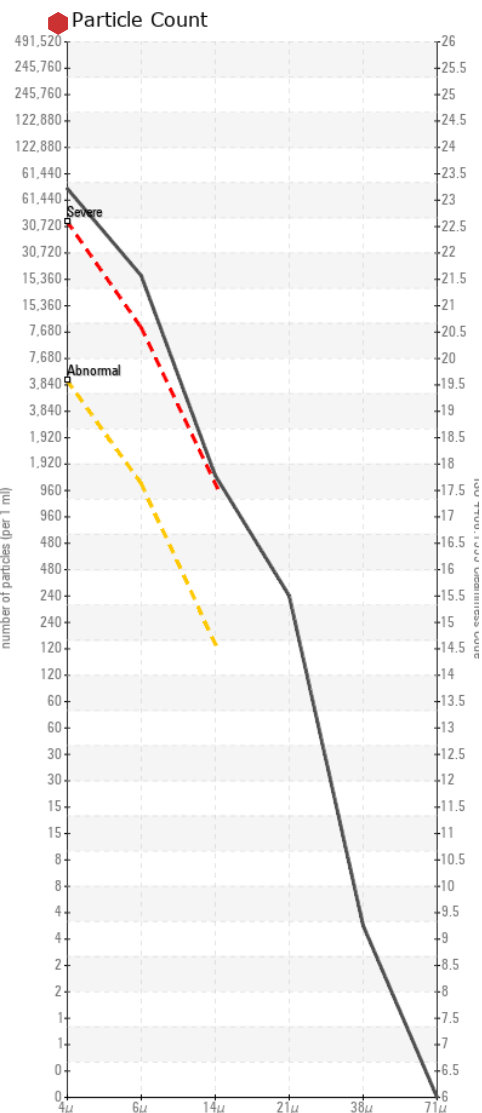
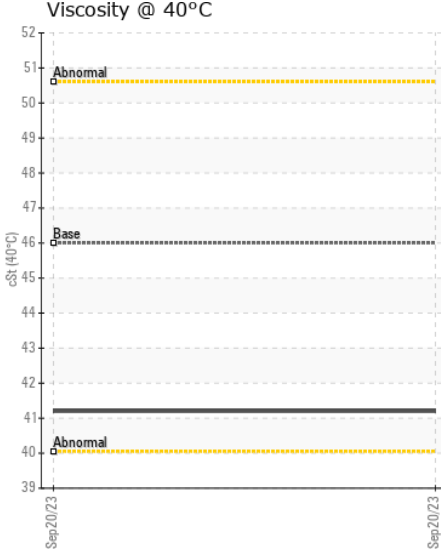
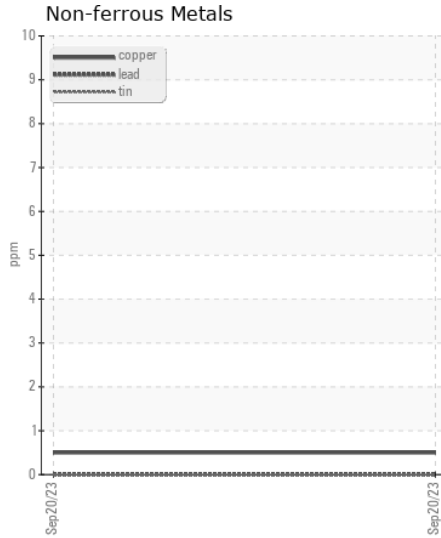
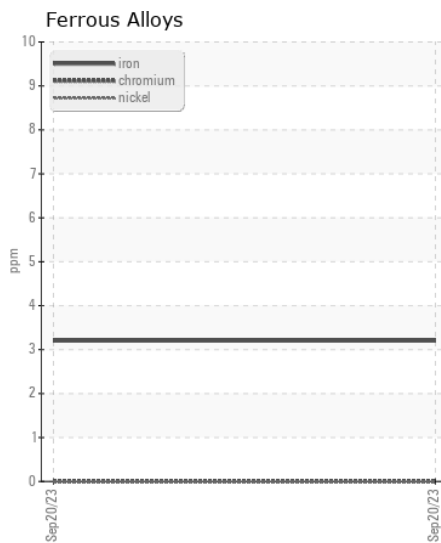
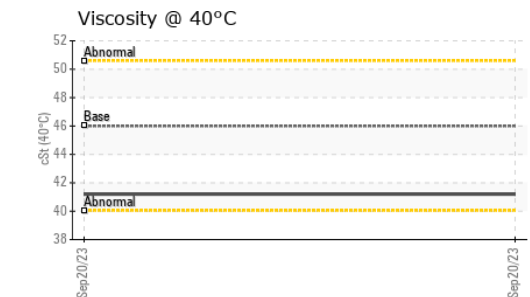
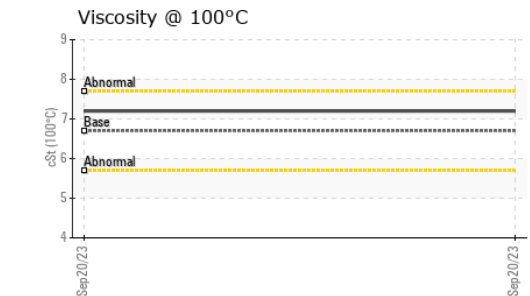
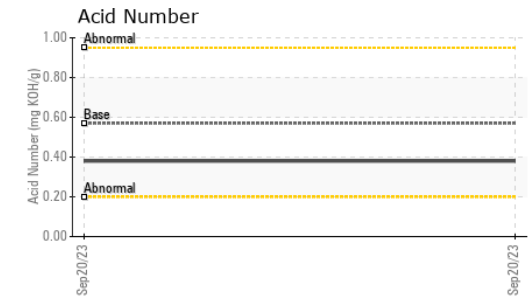
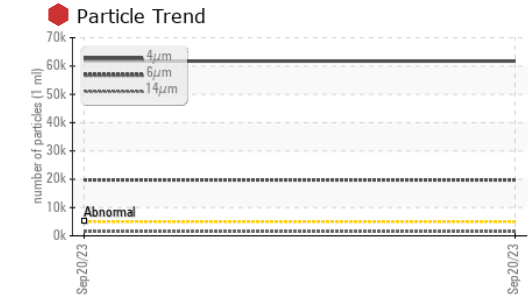
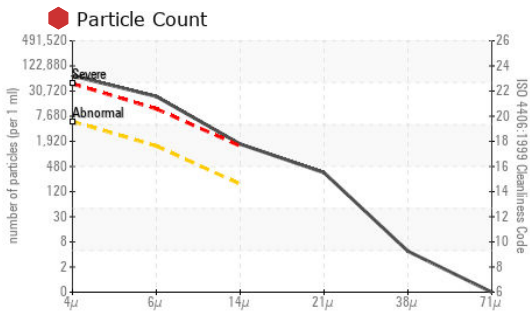
## CONTAMINATION

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0798376	---	---
Sample Date		Client Info		20 Sep 2023	---	---
Machine Age	hrs	Client Info		0	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				SEVERE	---	---
Iron	ppm	ASTM D5185m	>20	3	---	---
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	<1	---	---
Tin	ppm	ASTM D5185m	>10	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185m	>20	<1	---	---
Potassium	ppm	ASTM D5185m	>20	<1	---	---
Water		WC Method	>0.1	NEG	---	---
Particles >4µm		ASTM D7647	>5000	61731	---	---
Particles >6µm		ASTM D7647	>1300	19749	---	---
Particles >14µm		ASTM D7647	>160	1447	---	---
Particles >21µm		ASTM D7647	>40	300	---	---
Particles >38µm		ASTM D7647	>10	4	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	23/21/18	---	---
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	---	---
Sodium	ppm	ASTM D5185m		0	---	---
Boron	ppm	ASTM D5185m	5	4	---	---
Barium	ppm	ASTM D5185m	5	0	---	---
Molybdenum	ppm	ASTM D5185m	5	2	---	---
Manganese	ppm	ASTM D5185m		0	---	---
Magnesium	ppm	ASTM D5185m	25	16	---	---
Calcium	ppm	ASTM D5185m	200	149	---	---
Phosphorus	ppm	ASTM D5185m	300	338	---	---
Zinc	ppm	ASTM D5185m	370	352	---	---
Sulfur	ppm	ASTM D5185m	2500	2468	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.38	---	---
Visc @ 40°C	cSt	ASTM D445	46	41.2	---	---
Visc @ 100°C	cSt	ASTM D445	6.7	7.2	---	---
Viscosity Index (VI)	Scale	ASTM D2270	97	138	---	---



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0798376 **Received** : 17 Jan 2024  
**Lab Number** : 06062651 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10834033 **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

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)