



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION

Machine Id
HIAB 220129
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 32 (--- GAL)

RECOMMENDATION

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0689663	WC0622250	---
Sample Date		Client Info		09 May 2023	15 Mar 2022	---
Machine Age	yrs	Client Info		6	2	---
Oil Age	yrs	Client Info		6	2	---
Filter Age	yrs	Client Info		1	1	---
Oil Changed		Client Info		Not Changed	Not Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	1	1	---
Chromium	ppm	ASTM D5185m	>10	0	0	---
Nickel	ppm	ASTM D5185m	>10	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>10	<1	<1	---
Lead	ppm	ASTM D5185m	>10	0	<1	---
Copper	ppm	ASTM D5185m	>75	<1	2	---
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

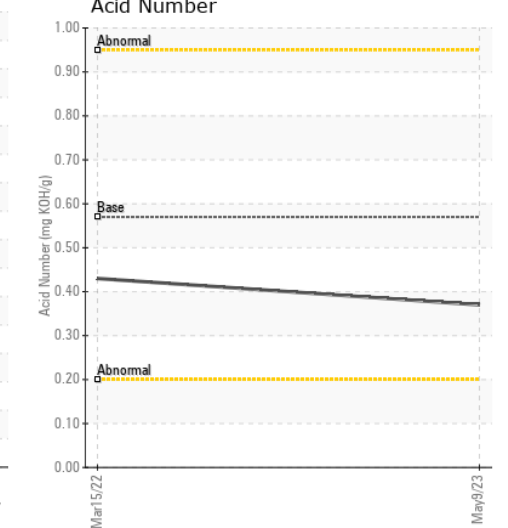
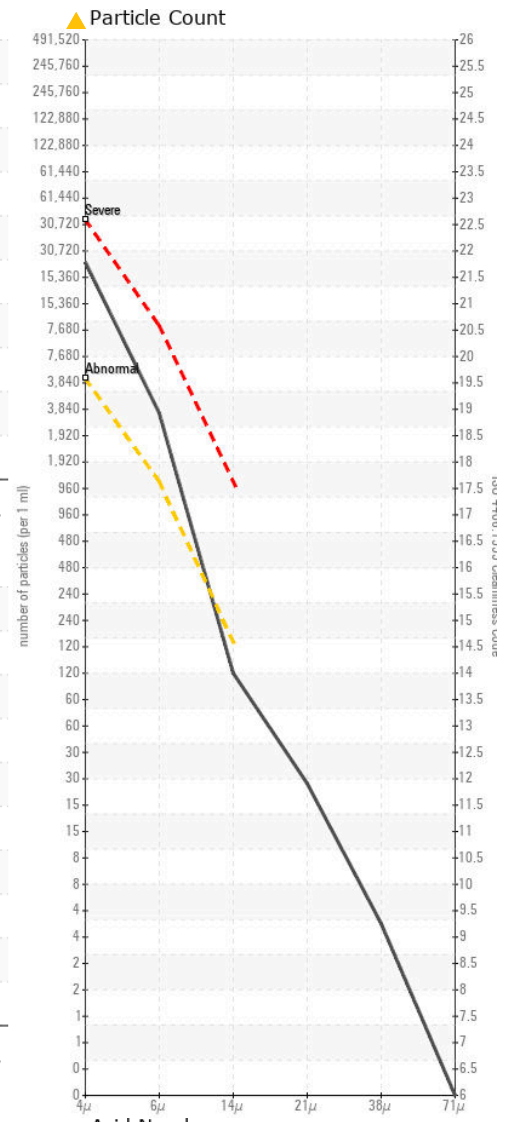
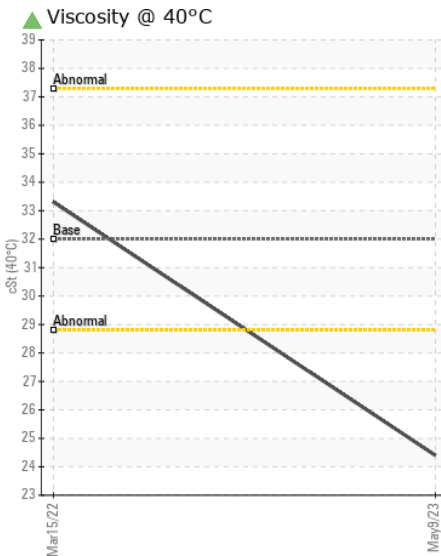
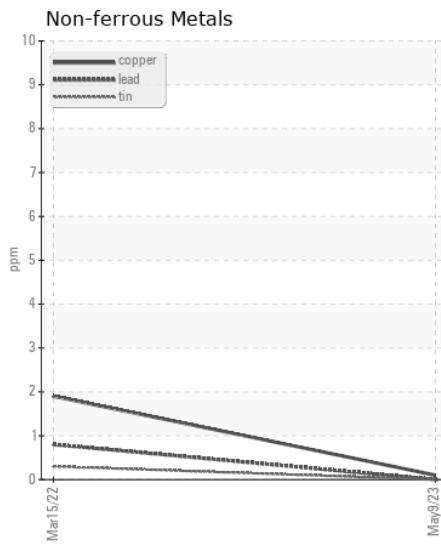
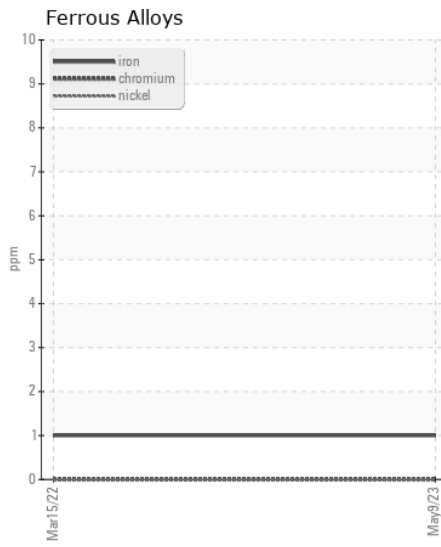
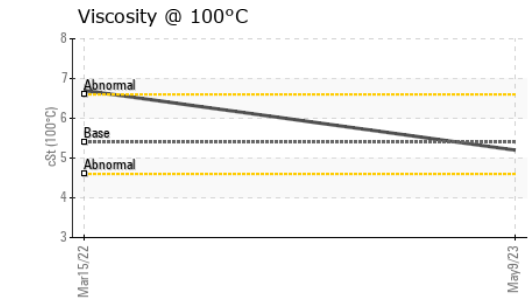
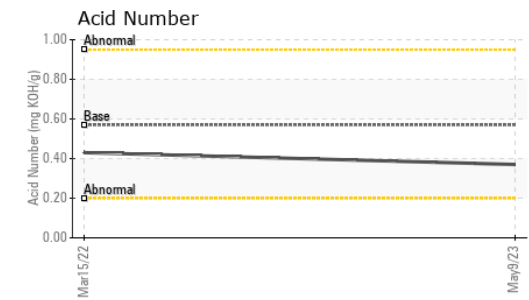
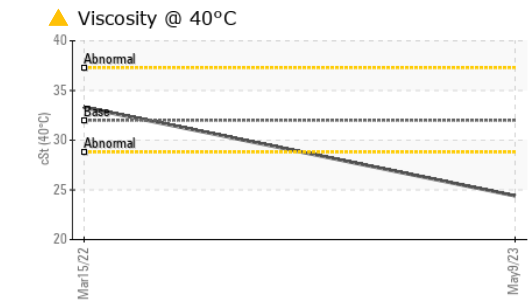
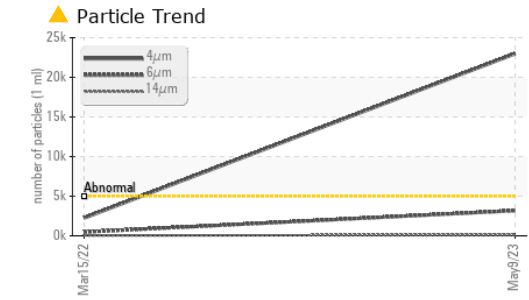
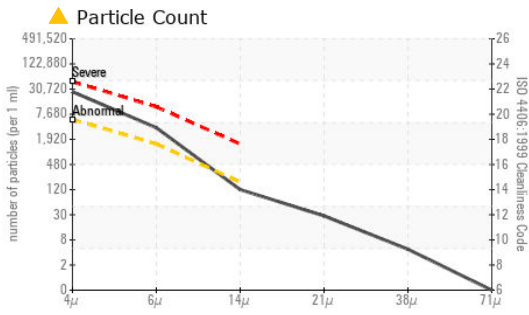
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	<1	0	---
Potassium	ppm	ASTM D5185m	>20	<1	<1	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>5000	▲ 22979	2236	---
Particles >6µm		ASTM D7647	>1300	▲ 3181	475	---
Particles >14µm		ASTM D7647	>160	106	37	---
Particles >21µm		ASTM D7647	>40	25	9	---
Particles >38µm		ASTM D7647	>10	4	1	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 22/19/14	18/16/12	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
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

Viscosity of sample indicates oil is within ISO 22 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		<1	<1	---
Boron	ppm	ASTM D5185m	5	0	<1	---
Barium	ppm	ASTM D5185m	5	0	0	---
Molybdenum	ppm	ASTM D5185m	5	0	<1	---
Manganese	ppm	ASTM D5185m		<1	0	---
Magnesium	ppm	ASTM D5185m	25	0	<1	---
Calcium	ppm	ASTM D5185m	200	28	91	---
Phosphorus	ppm	ASTM D5185m	300	304	597	---
Zinc	ppm	ASTM D5185m	370	384	780	---
Sulfur	ppm	ASTM D5185m	2500	693	1542	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.37	0.43	---
Visc @ 40°C	cSt	ASTM D445	32	▲ 24.4	33.3	---
Visc @ 100°C	cSt	ASTM D445	5.4	5.2	6.7	---
Viscosity Index (VI)	Scale	ASTM D2270	102	150	163	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0689663 **Received** : 19 May 2023
Lab Number : 05852407 **Diagnosed** : 24 May 2023
Unique Number : 10481762 **Diagnostician** : Jonathan Hester
Test Package : MOB 2 (Additional Tests: KV100, VI)

HIAB USA - ROCHESTER
 1005 CHILI AVE STE 1
 ROCHESTER, NY
 US 14611-2807
 Contact: RON SCALERA
 ron.scalera@hiab.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)

T:
F: