



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**SUNBELT 10394969**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 5W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0689570	---	---
Sample Date		Client Info		28 Apr 2023	---	---
Machine Age	hrs	Client Info		598	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		Not Changd	---	---
Sample Status				NORMAL	---	---

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	14	---	---
Chromium	ppm	ASTM D5185m	>20	1	---	---
Nickel	ppm	ASTM D5185m	>4	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>20	0	---	---
Lead	ppm	ASTM D5185m	>40	<1	---	---
Copper	ppm	ASTM D5185m	>330	2	---	---
Tin	ppm	ASTM D5185m	>15	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

## CONTAMINATION

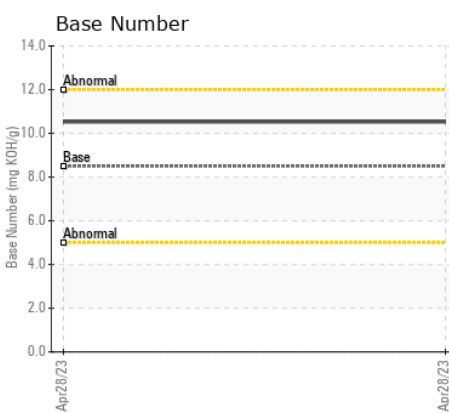
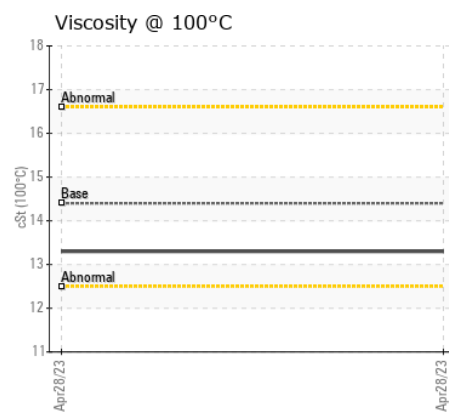
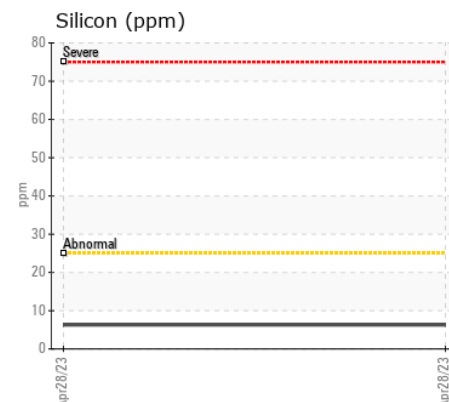
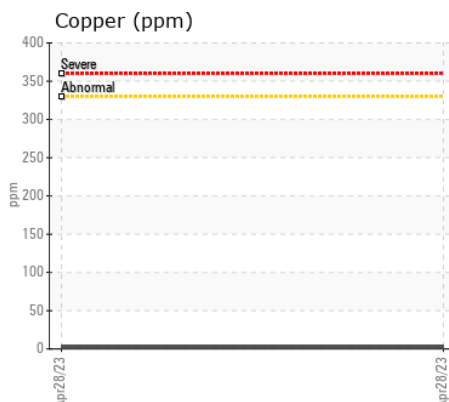
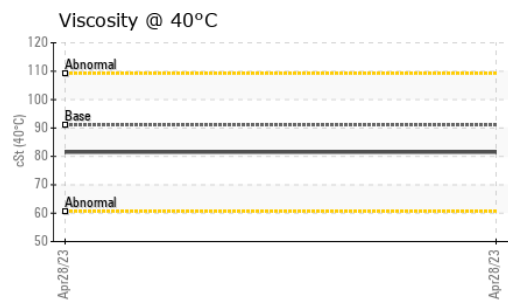
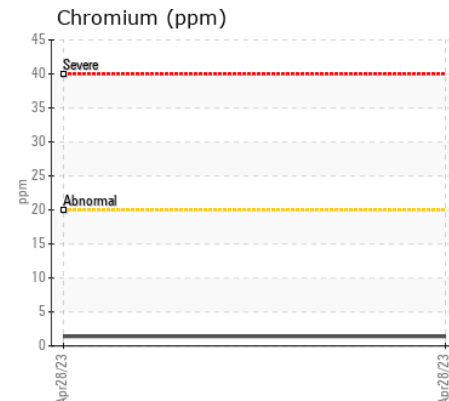
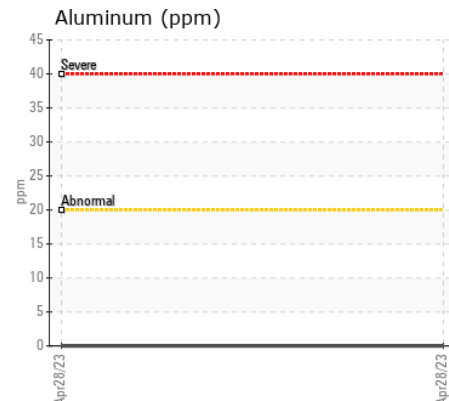
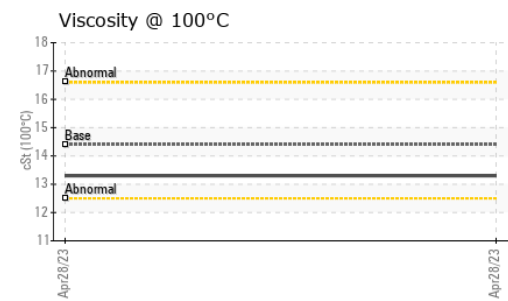
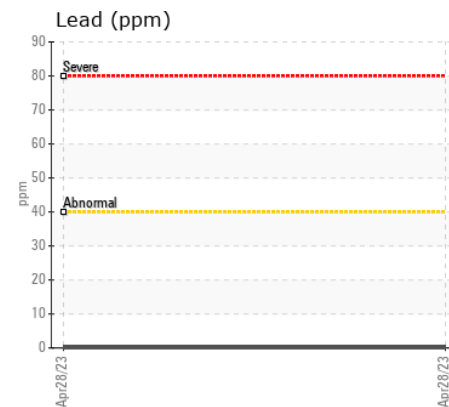
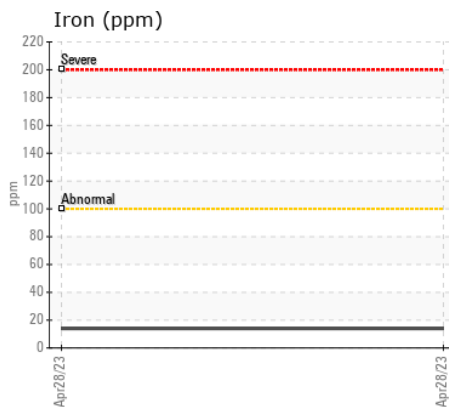
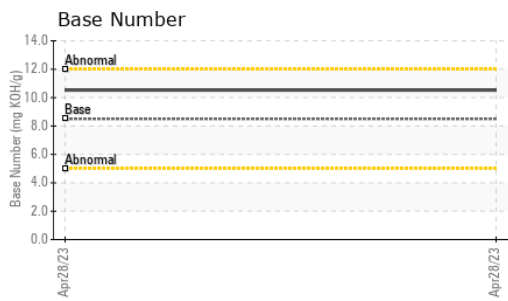
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	---	---
Potassium	ppm	ASTM D5185m	>20	1	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	8.2	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.7	---	---
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	>0.2	NEG	---	---

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>44	17	---	---
Boron	ppm	ASTM D5185m	250	52	---	---
Barium	ppm	ASTM D5185m	10	0	---	---
Molybdenum	ppm	ASTM D5185m	100	55	---	---
Manganese	ppm	ASTM D5185m		2	---	---
Magnesium	ppm	ASTM D5185m	450	971	---	---
Calcium	ppm	ASTM D5185m	3000	848	---	---
Phosphorus	ppm	ASTM D5185m	1150	968	---	---
Zinc	ppm	ASTM D5185m	1350	1168	---	---
Sulfur	ppm	ASTM D5185m	4250	3304	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.8	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	10.53	---	---
Visc @ 40°C	cSt	ASTM D445	91	81.5	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	13.3	---	---
Viscosity Index (VI)	Scale	ASTM D2270	164	165	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0689570 **Received** : 02 May 2023  
**Lab Number** : 05835466 **Diagnosed** : 03 May 2023  
**Unique Number** : 10454269 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: KV40, VI )

**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

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)