OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
8140
Component
Diesel Engine
Fluid
{not provided} (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

WEAR

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core).

CONTAMINATION

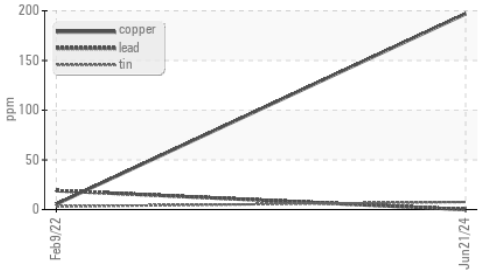
Fuel content negligible. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

FLUID CONDITION

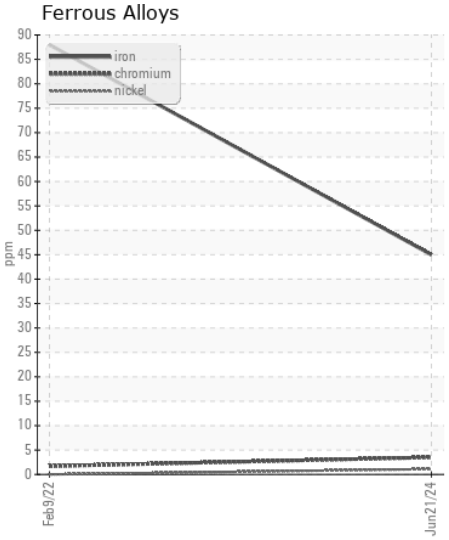
The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**WC0946104**	WC0665712	---
Sample Date		Client Info		**21 Jun 2024**	09 Feb 2022	---
Machine Age	mls	Client Info		**0**	283154	---
Oil Age	mls	Client Info		**25329**	0	---
Filter Age	mls	Client Info		**25329**	0	---
Oil Changed		Client Info		**Changed**	Changed	---
Filter Changed		Client Info		**Changed**	Changed	---
Sample Status				**ABNORMAL**	ABNORMAL	---
Iron	ppm	ASTM D5185m	>100	**45**	88	---
Chromium	ppm	ASTM D5185m	>20	**4**	2	---
Nickel	ppm	ASTM D5185m	>4	**1**	0	---
Titanium	ppm	ASTM D5185m		**0**	0	---
Silver	ppm	ASTM D5185m	>3	**<1**	0	---
Aluminum	ppm	ASTM D5185m	>20	**110**	2	---
Lead	ppm	ASTM D5185m	>40	**0**	19	---
Copper	ppm	ASTM D5185m	>330	▲ **197**	6	---
Tin	ppm	ASTM D5185m	>15	**8**	3	---
Vanadium	ppm	ASTM D5185m		**0**	0	---
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Silicon	ppm	ASTM D5185m	>25	**8**	13	---
Potassium	ppm	ASTM D5185m	>20	**244**	<1	---
Fuel	%	ASTM D3524	>5	**0.0**	<1.0	---
Water		WC Method	>0.2	**NEG**	NEG	---
Glycol		WC Method		**NEG**	NEG	---
Soot %	%	*ASTM D7844	>3	**0.4**	▲ 3.8	---
Nitration	Abs/cm	*ASTM D7624	>20	**9.5**	13.1	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	**23.4**	33.3	---
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	>0.2	**NEG**	NEG	---
Sodium	ppm	ASTM D5185m		**5**	3	---
Boron	ppm	ASTM D5185m		**34**	75	---
Barium	ppm	ASTM D5185m		**0**	0	---
Molybdenum	ppm	ASTM D5185m		**42**	68	---
Manganese	ppm	ASTM D5185m		**4**	1	---
Magnesium	ppm	ASTM D5185m		**499**	198	---
Calcium	ppm	ASTM D5185m		**1708**	1969	---
Phosphorus	ppm	ASTM D5185m		**686**	864	---
Zinc	ppm	ASTM D5185m		**938**	1009	---
Sulfur	ppm	ASTM D5185m		**2066**	2667	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	**23.9**	24.4	---
Base Number (BN)	mg KOH/g	ASTM D2896		**7.6**	4.0	---
Visc @ 100°C	cSt	ASTM D445		● **9.9**	13.2	---

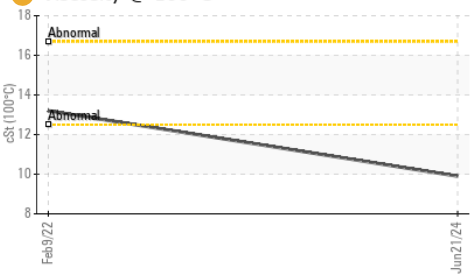
Non-ferrous Metals



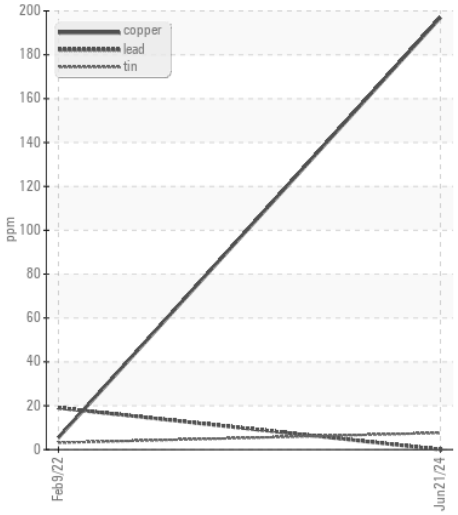
Ferrous Alloys



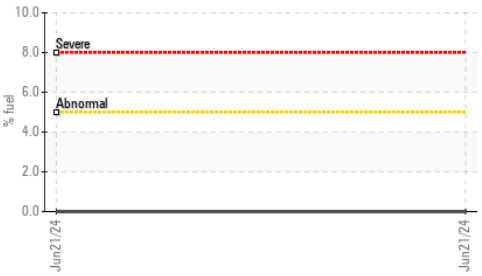
Viscosity @ 100°C



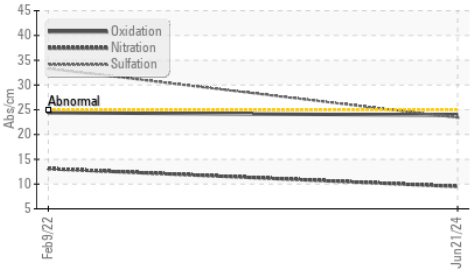
Non-ferrous Metals



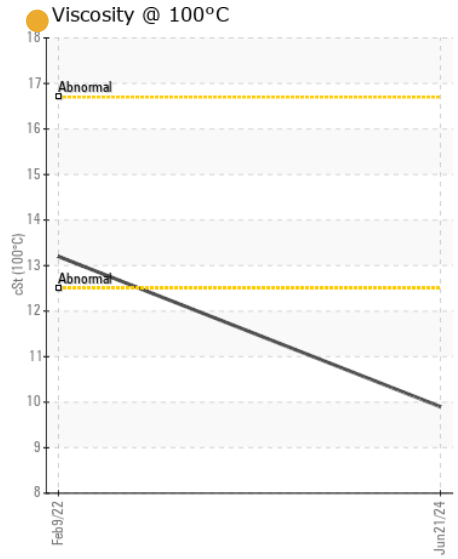
Fuel Dilution



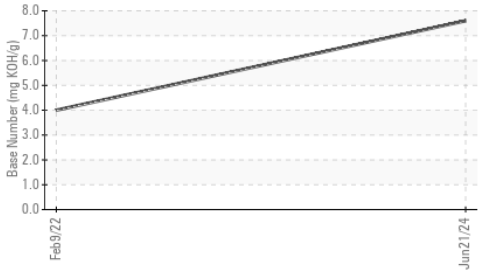
FT-IR (Direct Trend)



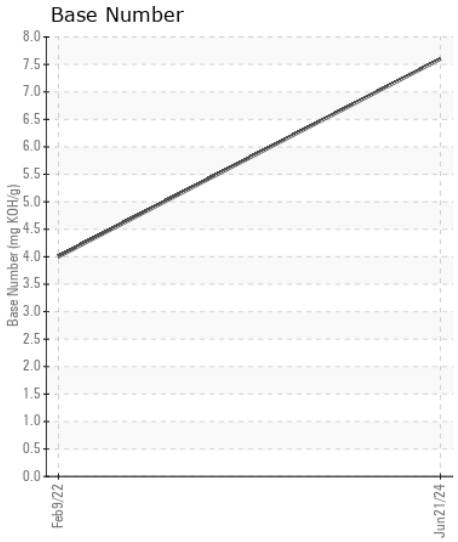
Viscosity @ 100°C



Base Number



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0946104
Lab Number : 06221018
Unique Number : 11099215
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

Received : 26 Jun 2024
Tested : 01 Jul 2024
Diagnosed : 01 Jul 2024 - Jonathan Hester

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)

SALEM NATIONALEASE CORPORATION
198 PARK PLAZA DRIVE
WINSTON SALEM, NC
US 27105
Contact: Audrey Hopkins
Audrey.Hopkins@salemcorp.com
T: (336)767-9642
F: x: