OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
46512
Component
Front Diesel Engine
Fluid
MOBIL 15W40 (--- GAL)

RECOMMENDATION

The oil is near the end of it's useful service life, recommend schedule an oil change. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

WEAR

All component wear rates are normal.

CONTAMINATION

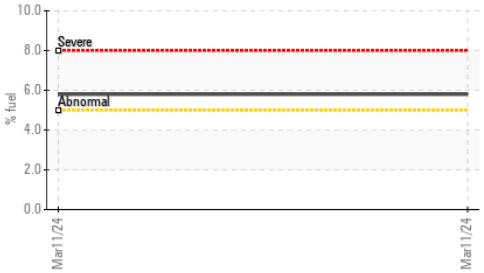
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

FLUID CONDITION

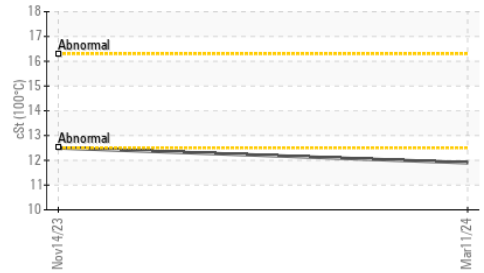
Molybdenum ppm levels are abnormally high. Visc @ 100°C is abnormally low. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**WC0915991**	WC0838114	---
Sample Date		Client Info		**11 Mar 2024**	14 Nov 2023	---
Machine Age	mls	Client Info		**79005**	63534	---
Oil Age	mls	Client Info		**0**	0	---
Filter Age	mls	Client Info		**0**	0	---
Oil Changed		Client Info		**N/A**	N/A	---
Filter Changed		Client Info		**N/A**	N/A	---
Sample Status				**ABNORMAL**	NORMAL	---
Iron	ppm	ASTM D5185m	>100	**42**	42	---
Chromium	ppm	ASTM D5185m	>20	**3**	2	---
Nickel	ppm	ASTM D5185m	>4	**<1**	0	---
Titanium	ppm	ASTM D5185m		**<1**	<1	---
Silver	ppm	ASTM D5185m	>3	**0**	0	---
Aluminum	ppm	ASTM D5185m	>20	**19**	20	---
Lead	ppm	ASTM D5185m	>40	**<1**	0	---
Copper	ppm	ASTM D5185m	>330	**2**	2	---
Tin	ppm	ASTM D5185m	>15	**<1**	<1	---
Vanadium	ppm	ASTM D5185m		**<1**	<1	---
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Silicon	ppm	ASTM D5185m	>25	**10**	9	---
Potassium	ppm	ASTM D5185m	>20	**38**	40	---
Fuel	%	ASTM D3524	>5	▲ **5.8**	<1.0	---
Water		WC Method	>0.2	**NEG**	NEG	---
Glycol		WC Method		**NEG**	NEG	---
Soot %	%	*ASTM D7844	>3	**0.8**	1	---
Nitration	Abs/cm	*ASTM D7624	>20	**11.4**	11.6	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	**24.5**	23.8	---
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	>118	**2**	1	---
Boron	ppm	ASTM D5185m		**178**	6	---
Barium	ppm	ASTM D5185m		**<1**	0	---
Molybdenum	ppm	ASTM D5185m		▲ **116**	62	---
Manganese	ppm	ASTM D5185m		**<1**	<1	---
Magnesium	ppm	ASTM D5185m		**708**	935	---
Calcium	ppm	ASTM D5185m		**1587**	1085	---
Phosphorus	ppm	ASTM D5185m		**835**	913	---
Zinc	ppm	ASTM D5185m		**955**	1205	---
Sulfur	ppm	ASTM D5185m		**2776**	2656	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	**21.4**	20.5	---
Base Number (BN)	mg KOH/g	ASTM D2896		**7.0**	6.8	---
Visc @ 100°C	cSt	ASTM D445		▲ **11.9**	12.5	---

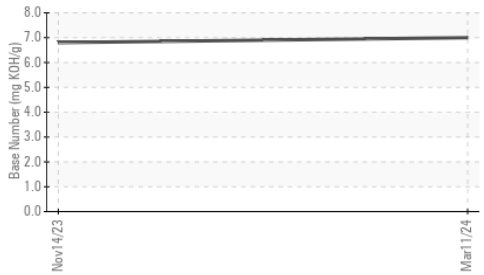
Fuel Dilution



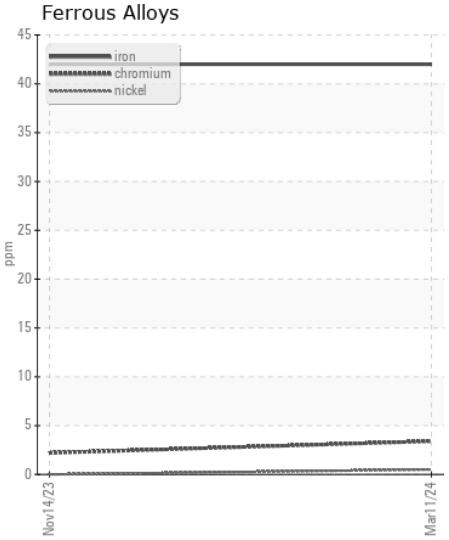
Viscosity @ 100°C



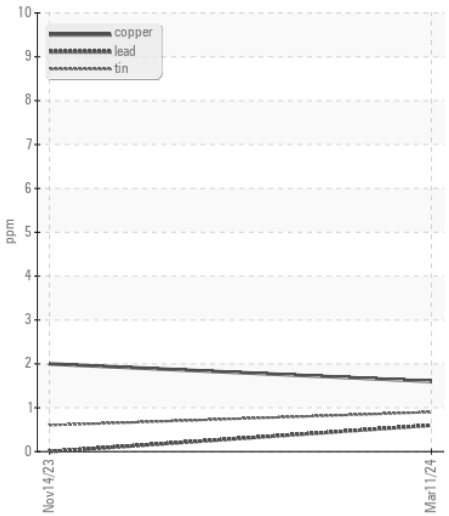
Base Number



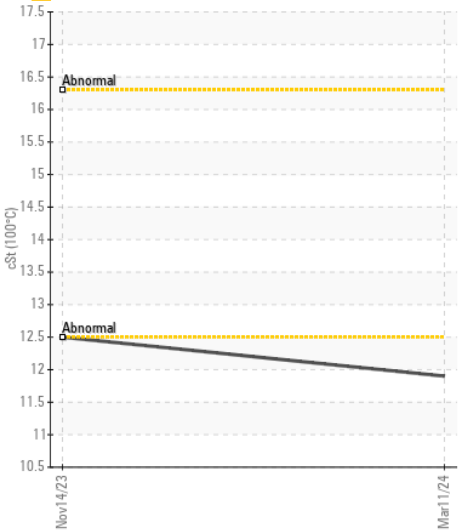
Ferrous Alloys



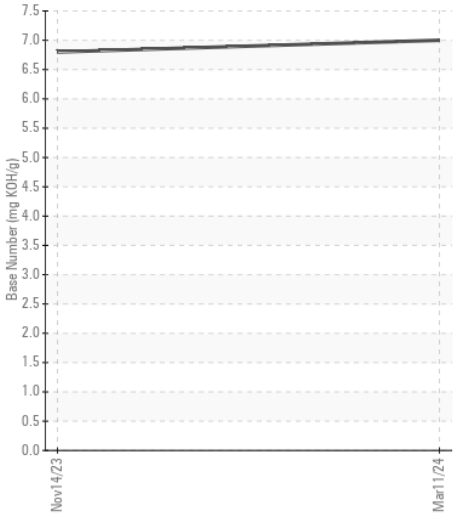
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0915991
Lab Number : 06125433
Unique Number : 10939584
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

Received : 21 Mar 2024
Tested : 26 Mar 2024
Diagnosed : 26 Mar 2024 - Wes Davis

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: