



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
FREIGHTLINER 19952
Component
Diesel Engine
Fluid
SHELL 15W40 (44 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0871944	WC0847868	WC0847803
Sample Date		Client Info		22 Dec 2023	17 Nov 2023	28 Sep 2023
Machine Age	mls	Client Info		616647	16849	586907
Oil Age	mls	Client Info		29732	0	22000
Filter Age	mls	Client Info		29732	0	22000
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	6	3	9
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>30	4	3	5
Lead	ppm	ASTM D5185m	>30	0	0	0
Copper	ppm	ASTM D5185m	>150	<1	<1	<1
Tin	ppm	ASTM D5185m	>5	0	0	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

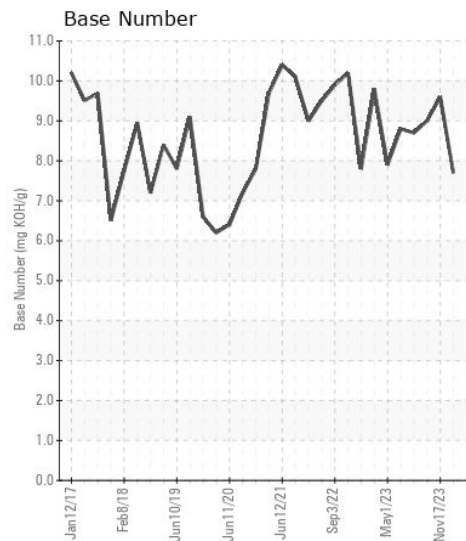
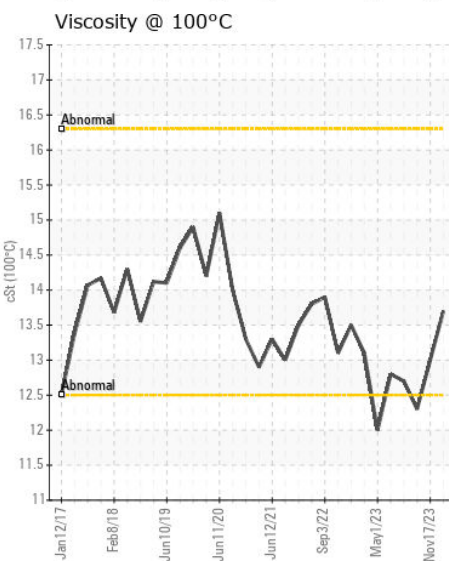
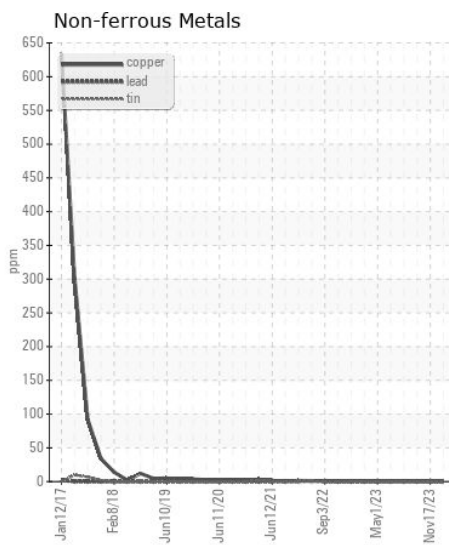
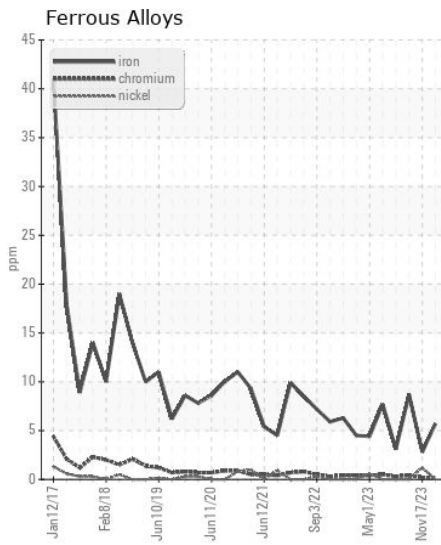
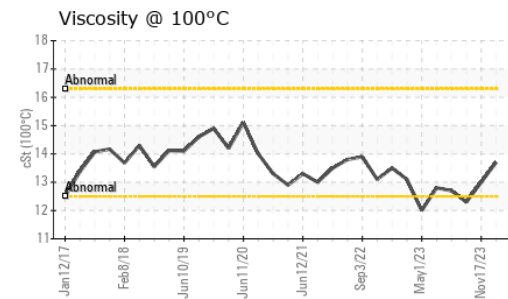
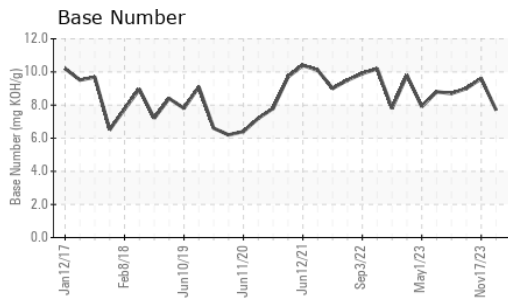
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	5	3	4
Potassium	ppm	ASTM D5185m	>20	3	2	5
Fuel		WC Method	>5	<1.0	<1.0	0.2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.3	0.4
Nitration	Abs/cm	*ASTM D7624	>20	6.3	6.9	7.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.6	19.3	18.9
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	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	>150	2	1	2
Boron	ppm	ASTM D5185m		310	7	7
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		80	63	80
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		531	920	928
Calcium	ppm	ASTM D5185m		1287	1064	1226
Phosphorus	ppm	ASTM D5185m		1090	1022	1072
Zinc	ppm	ASTM D5185m		1293	1269	1305
Sulfur	ppm	ASTM D5185m		3350	3233	3840
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.7	14.6	13.9
Base Number (BN)	mg KOH/g	ASTM D2896		7.7	9.6	9.0
Visc @ 100°C	cSt	ASTM D445		13.7	13.0	▲ 12.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0871944 **Received** : 18 Jan 2024
Lab Number : 06064871 **Diagnosed** : 19 Jan 2024
Unique Number : 10836253 **Diagnostician** : Wes Davis
Test Package : FLEET

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:

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)