



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
FREIGHTLINER 36164
Component
Diesel Engine
Fluid
EXXON 15W40 (48 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0841992	WC0841806	WC0688580
Sample Date		Client Info		15 Jan 2024	16 Sep 2023	30 Dec 2022
Machine Age	mls	Client Info		491219	490650	422809
Oil Age	mls	Client Info		0	0	18323
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	40	19	13
Chromium	ppm	ASTM D5185m	>5	7	<1	1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>30	6	3	1
Lead	ppm	ASTM D5185m	>30	2	3	3
Copper	ppm	ASTM D5185m	>150	1	4	<1
Tin	ppm	ASTM D5185m	>5	<1	1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

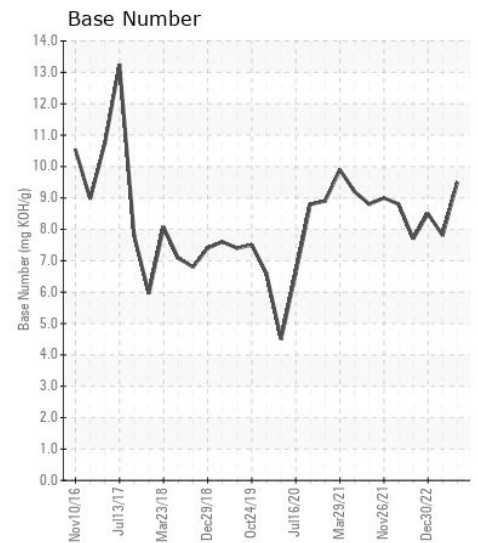
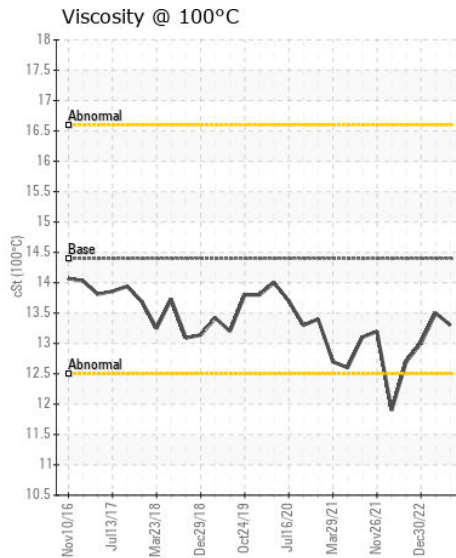
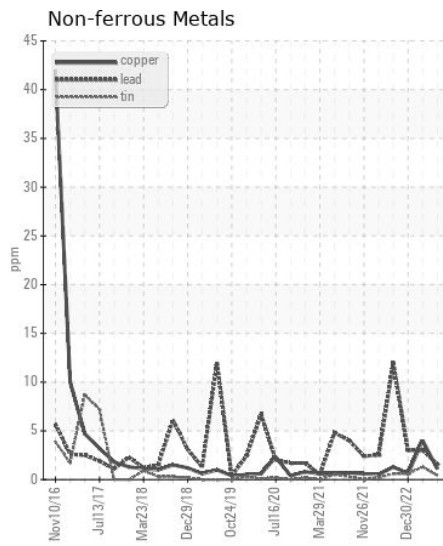
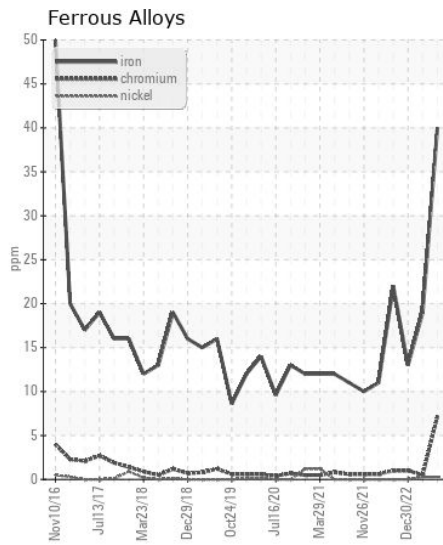
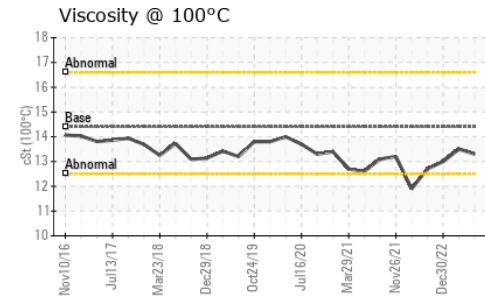
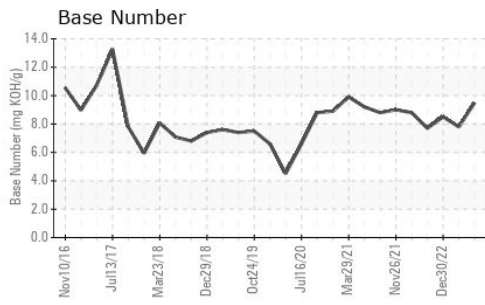
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	9	6	3
Potassium	ppm	ASTM D5185m	>20	4	4	3
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	5.5	10.4	8.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.4	22.8	20.7
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		10	4	2
Boron	ppm	ASTM D5185m		26	<1	7
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		64	64	68
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m		924	1050	976
Calcium	ppm	ASTM D5185m		1046	1158	1232
Phosphorus	ppm	ASTM D5185m		1075	1075	1008
Zinc	ppm	ASTM D5185m		1259	1355	1318
Sulfur	ppm	ASTM D5185m		3289	3050	3625
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.7	18.5	15.5
Base Number (BN)	mg KOH/g	ASTM D2896		9.5	7.8	8.5
Visc @ 100°C	cSt	ASTM D445	14.4	13.3	13.5	13.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0841992
Lab Number : 06099686
Unique Number : 10897916
Test Package : FLEET

Received : 26 Feb 2024
Tested : 27 Feb 2024
Diagnosed : 28 Feb 2024 - Jonathan Hester

SALEM NATIONALEASE CORPORATION
 198 PARK PLAZA DRIVE
 WINSTON SALEM, NC
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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)