



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
FREIGHTLINER 37501
Component
Diesel Engine
Fluid
EXXON 15W40 (44 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0912529	WC0506718	WC0562563
Sample Date		Client Info		01 Apr 2024	27 Sep 2021	15 Apr 2021
Machine Age	mls	Client Info		280650	153493	146410
Oil Age	mls	Client Info		0	3621	23533
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				NORMAL	MARGINAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>65	12	13	17
Chromium	ppm	ASTM D5185m	>5	1	1	2
Nickel	ppm	ASTM D5185m	>3	0	<1	<1
Titanium	ppm	ASTM D5185m	>5	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>35	8	4	5
Lead	ppm	ASTM D5185m	>10	<1	<1	<1
Copper	ppm	ASTM D5185m	>180	7	▲ 71	▲ 216
Tin	ppm	ASTM D5185m	>8	<1	0	<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.

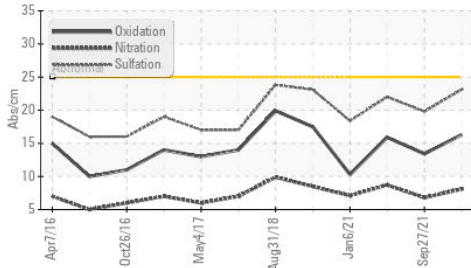
Silicon	ppm	ASTM D5185m	>15	5	4	2
Potassium	ppm	ASTM D5185m	>20	3	9	5
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.9	0.5	0.7
Nitration	Abs/cm	*ASTM D7624	>20	8.1	6.8	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.1	19.8	22
Silt	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

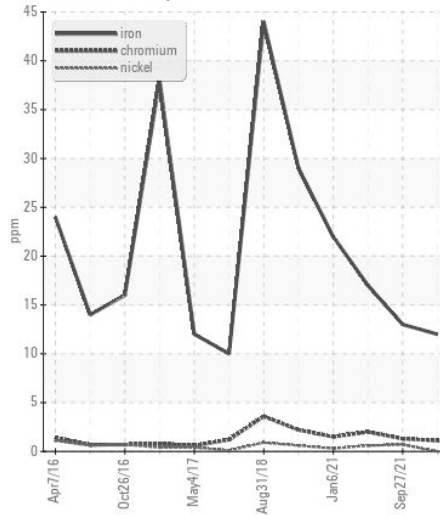
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	2	2
Boron	ppm	ASTM D5185m		298	7	5
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		85	65	60
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		466	919	844
Calcium	ppm	ASTM D5185m		1322	1178	1393
Phosphorus	ppm	ASTM D5185m		982	968	1076
Zinc	ppm	ASTM D5185m		1144	1104	1299
Sulfur	ppm	ASTM D5185m		3331	4538	3095
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.3	13.4	15.9
Base Number (BN)	mg KOH/g	ASTM D2896		6.5	9	9
Visc @ 100°C	cSt	ASTM D445	14.4	13.6	13.4	13.9

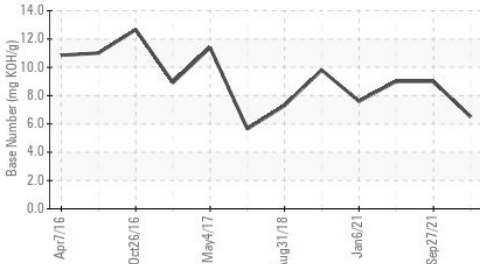
FT-IR (Direct Trend)



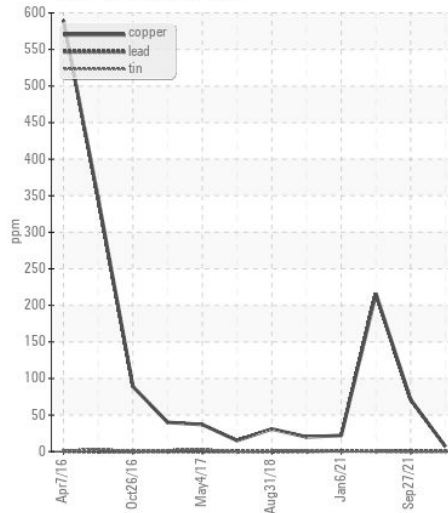
Ferrous Alloys



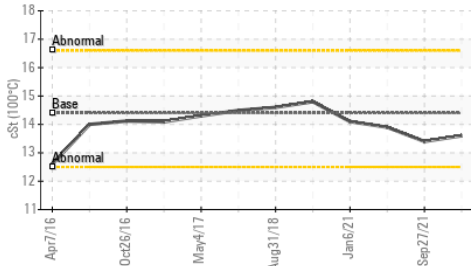
Base Number



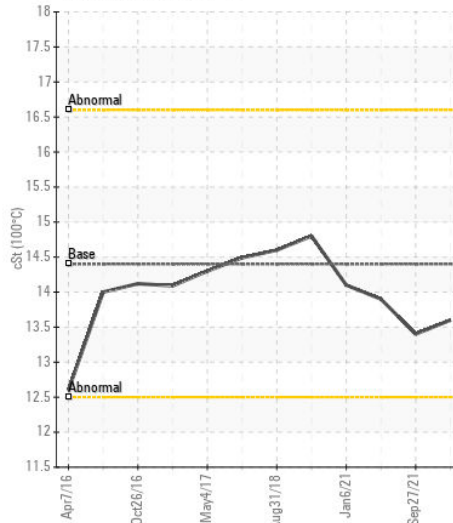
Non-ferrous Metals



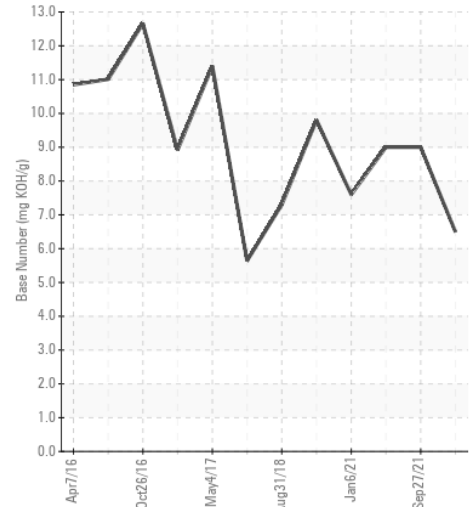
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0912529

Lab Number : 06153635

Unique Number : 10983713

Test Package : FLEET

Received : 18 Apr 2024

Tested : 19 Apr 2024

Diagnosed : 23 Apr 2024 - Don Baldrige

SALEM NATIONALEASE CORPORATION

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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)