



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
FREIGHTLINER 44688
Component
Diesel Engine
Fluid
CHEVRON 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0919379	WC0795679	WC0794549
Sample Date		Client Info		19 Mar 2024	07 Nov 2023	15 Aug 2023
Machine Age	mls	Client Info		623000	574851	562453
Oil Age	mls	Client Info		25000	25000	31000
Filter Age	mls	Client Info		25000	25000	31000
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>65	27	12	23
Chromium	ppm	ASTM D5185m	>5	<1	<1	2
Nickel	ppm	ASTM D5185m	>3	0	<1	<1
Titanium	ppm	ASTM D5185m	>5	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>35	7	4	6
Lead	ppm	ASTM D5185m	>10	0	<1	1
Copper	ppm	ASTM D5185m	>180	14	22	50
Tin	ppm	ASTM D5185m	>8	0	<1	1
Vanadium	ppm	ASTM D5185m		0	0	<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.

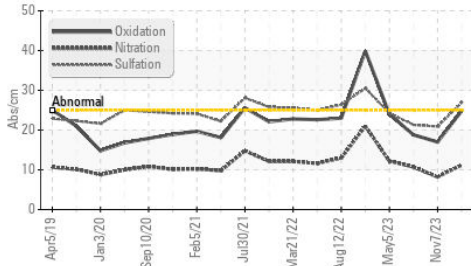
Silicon	ppm	ASTM D5185m	>15	7	4	4
Potassium	ppm	ASTM D5185m	>20	<1	1	5
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1	0.5	0.7
Nitration	Abs/cm	*ASTM D7624	>20	11.2	8.2	10.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.9	20.9	21.3
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

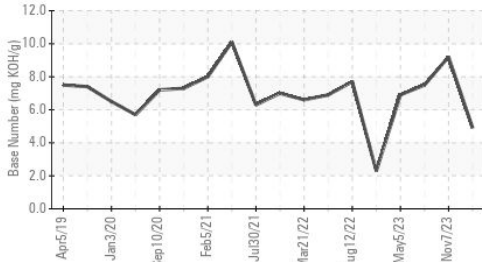
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>50	1	1	2
Boron	ppm	ASTM D5185m		32	23	1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		88	68	67
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		742	915	1086
Calcium	ppm	ASTM D5185m		1437	1092	1321
Phosphorus	ppm	ASTM D5185m		1101	1011	1047
Zinc	ppm	ASTM D5185m		1393	1260	1379
Sulfur	ppm	ASTM D5185m		3140	2957	3118
Oxidation	Abs/.1mm	*ASTM D7414	>25	24.8	17.0	18.8
Base Number (BN)	mg KOH/g	ASTM D2896		4.9	9.2	7.5
Visc @ 100°C	cSt	ASTM D445	14.4	14.4	13.8	14.5

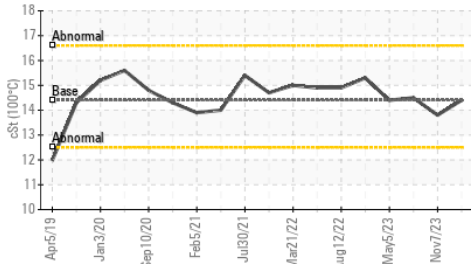
FT-IR (Direct Trend)



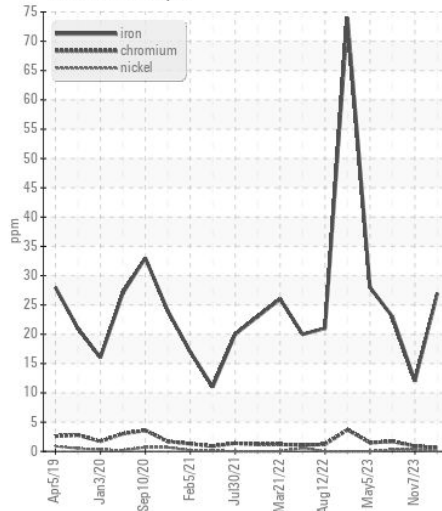
Base Number



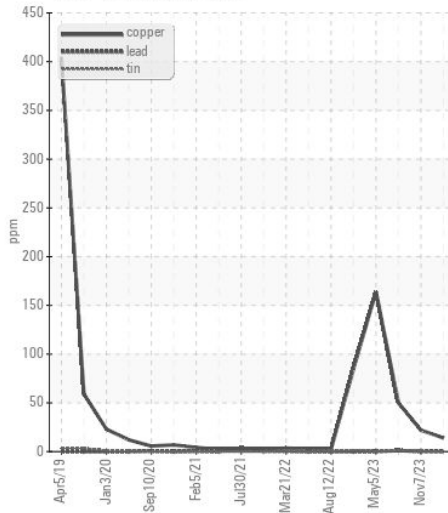
Viscosity @ 100°C



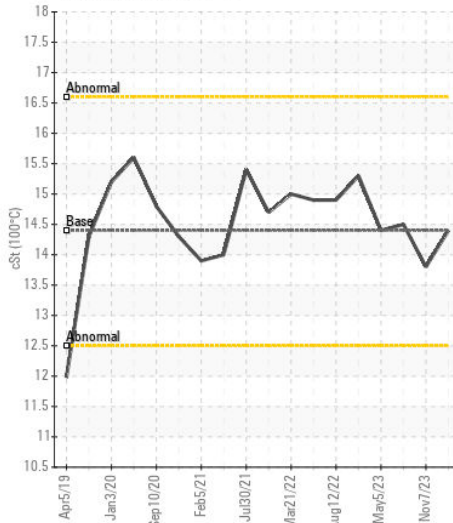
Ferrous Alloys



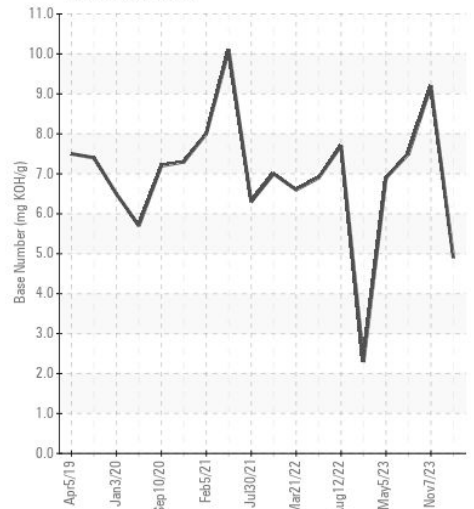
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0919379
Lab Number : 06159710
Unique Number : 10995133
Test Package : FLEET

Received : 24 Apr 2024
Tested : 25 Apr 2024
Diagnosed : 25 Apr 2024 - Wes Davis

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)