



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
1572
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 10W30 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0886770	WC0762835	WC0762831
Sample Date		Client Info		11 Mar 2024	08 Mar 2023	07 Mar 2023
Machine Age	mls	Client Info		221811	3499	69147
Oil Age	mls	Client Info		31208	3499	25000
Filter Age	mls	Client Info		31208	3499	25000
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	28	14	20
Chromium	ppm	ASTM D5185m	>20	<1	1	2
Nickel	ppm	ASTM D5185m	>4	0	1	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	4	8
Lead	ppm	ASTM D5185m	>40	5	1	2
Copper	ppm	ASTM D5185m	>330	<1	1	2
Tin	ppm	ASTM D5185m	>15	0	<1	1
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

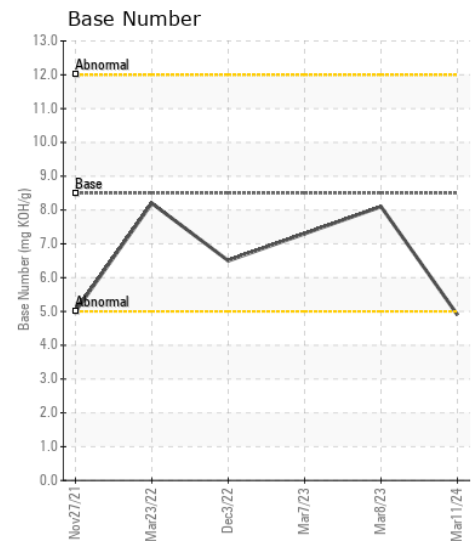
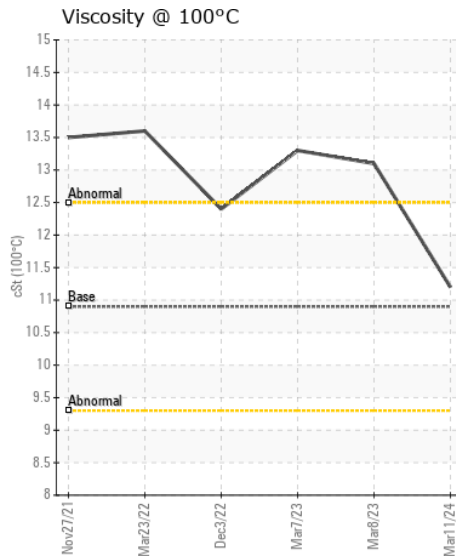
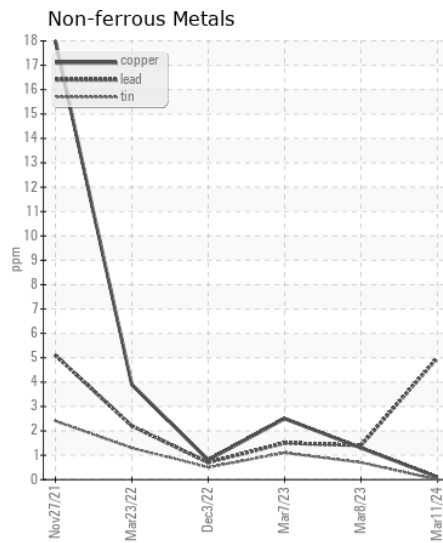
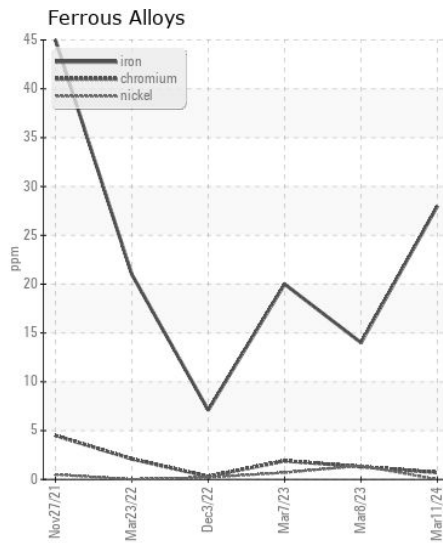
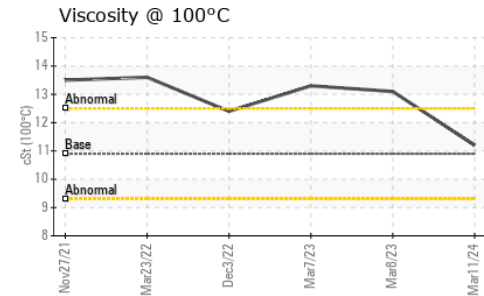
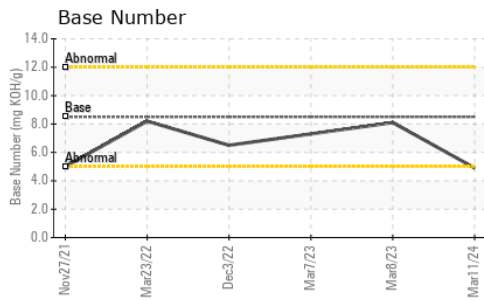
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	5	8
Potassium	ppm	ASTM D5185m	>20	2	7	19
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	0.4	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	10.7	7.5	10.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.0	20.5	21.1
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		1	<1	4
Boron	ppm	ASTM D5185m	250	4	65	33
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	61	74	54
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	450	944	444	799
Calcium	ppm	ASTM D5185m	3000	1169	2030	1425
Phosphorus	ppm	ASTM D5185m	1150	1022	1123	813
Zinc	ppm	ASTM D5185m	1350	1224	1391	1029
Sulfur	ppm	ASTM D5185m	4250	3216	3641	2714
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.1	16.1	18.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	4.9	8.1	7.3
Visc @ 100°C	cSt	ASTM D445	10.9	11.2	13.1	13.3



Certificate L2367

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

Sample No. : WC0886770

Lab Number : 06122020

Unique Number : 10936171

Test Package : FLEET

Received : 19 Mar 2024

Tested : 19 Mar 2024

Diagnosed : 19 Mar 2024 - Wes Davis

CARCO TRANSPORTATION

2801 MIDLAND BLVD.

FORT SMITH, AR

US 72904

Contact: RON BALL

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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)