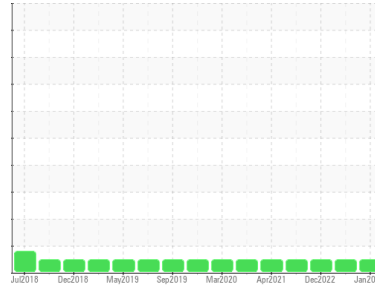


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
FREIGHTLINER 8481
 Component
Diesel Engine
 Fluid
CHEVRON DELO 400 SAE 10W30 (44 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0088506	PCA0088542	PCA0051783
Sample Date	Client Info		11 Jan 2024	07 Jun 2023	28 Dec 2022
Machine Age	mls	Client Info	648532	569463	535164
Oil Age	mls	Client Info	38152	569463	64056
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>80	15	19	40
Chromium	ppm	ASTM D5185m	>5	<1	1	2
Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>30	2	4	9
Lead	ppm	ASTM D5185m	>30	0	0	0
Copper	ppm	ASTM D5185m	>150	3	7	7
Tin	ppm	ASTM D5185m	>5	<1	<1	<1
Antimony	ppm	ASTM D5185m		---	---	---
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		19	1	<1
Barium	ppm	ASTM D5185m		0	1	0
Molybdenum	ppm	ASTM D5185m		37	61	62
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		819	923	905
Calcium	ppm	ASTM D5185m		1178	1088	1159
Phosphorus	ppm	ASTM D5185m	1260	891	1000	959
Zinc	ppm	ASTM D5185m	1400	1065	1201	1205
Sulfur	ppm	ASTM D5185m		2741	2629	2589

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>20	3	3	6
Sodium	ppm	ASTM D5185m		2	0	3
Potassium	ppm	ASTM D5185m	>20	0	2	0

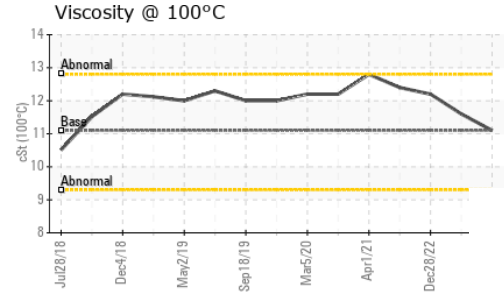
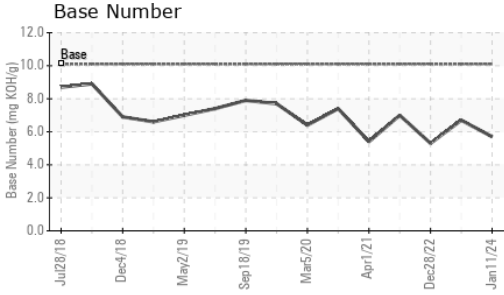
INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	0.6	0.5	1.4
Nitration	Abs/cm	*ASTM D7624	>20	9.3	9.0	11.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.8	21.1	25.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.7	18.1	21.7
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	5.7	6.7	5.3

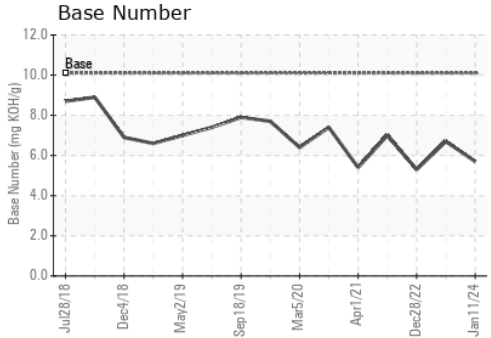
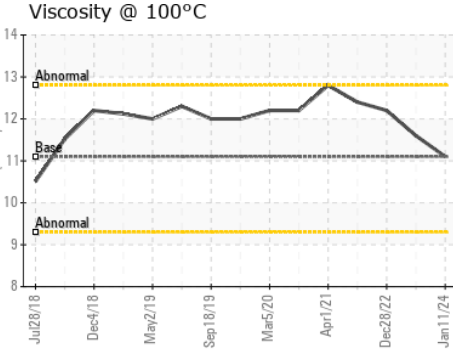
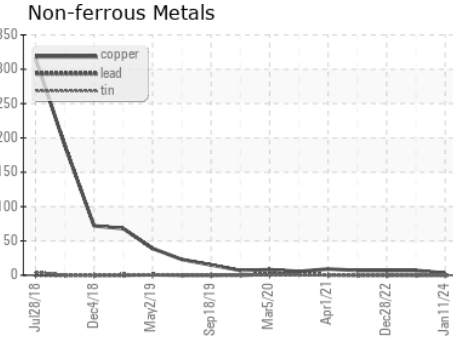
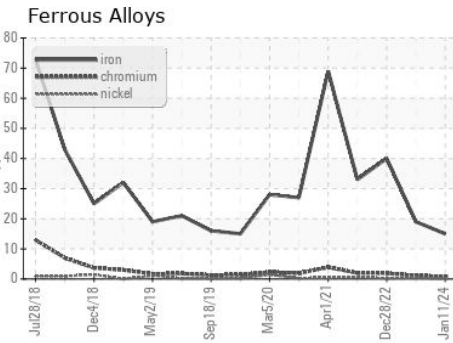
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	11.1	11.6	12.2

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0088506 **Received** : 16 Jan 2024
Lab Number : 06060592 **Diagnosed** : 16 Jan 2024
Unique Number : 10831974 **Diagnostician** : Wes Davis
Test Package : FLEET

MIDWEST MOTOR EXPRESS
 2169 MUSTANG DR
 MOUNDS VIEW, MN
 US 55112
 Contact: FRANK DIETZ
 frank.dietz@mmeinc.com
 T: (763)225-6382
 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)