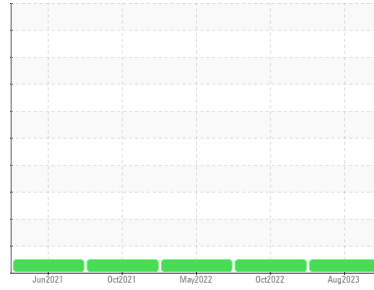




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
127009-969
 Component
Diesel Engine
 Fluid
CHEVRON DELO 400 XLE 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

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	GFL0084520	GFL0060786	GFL0053020
Sample Date	Client Info	03 Aug 2023	06 Oct 2022	19 May 2022
Machine Age	hrs	17944	17344	16735
Oil Age	hrs	600	609	595
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
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >80	10	12	14
Chromium	ppm ASTM D5185m >5	<1	2	2
Nickel	ppm ASTM D5185m >2	0	1	<1
Titanium	ppm ASTM D5185m	8	1	1
Silver	ppm ASTM D5185m >3	0	<1	0
Aluminum	ppm ASTM D5185m >30	5	5	6
Lead	ppm ASTM D5185m >30	0	1	<1
Copper	ppm ASTM D5185m >150	0	2	2
Tin	ppm ASTM D5185m >5	<1	<1	<1
Antimony	ppm ASTM D5185m	---	---	---
Vanadium	ppm ASTM D5185m	0	2	0
Cadmium	ppm ASTM D5185m	0	<1	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	160	232	310
Barium	ppm ASTM D5185m	0	<1	0
Molybdenum	ppm ASTM D5185m	74	112	101
Manganese	ppm ASTM D5185m	<1	1	<1
Magnesium	ppm ASTM D5185m	752	555	621
Calcium	ppm ASTM D5185m	1698	1460	1504
Phosphorus	ppm ASTM D5185m 760	836	705	699
Zinc	ppm ASTM D5185m 830	1017	826	799
Sulfur	ppm ASTM D5185m 2770	4054	2592	2220

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >20	6	8	7
Sodium	ppm ASTM D5185m	0	2	1
Potassium	ppm ASTM D5185m >20	2	2	2

INFRA-RED

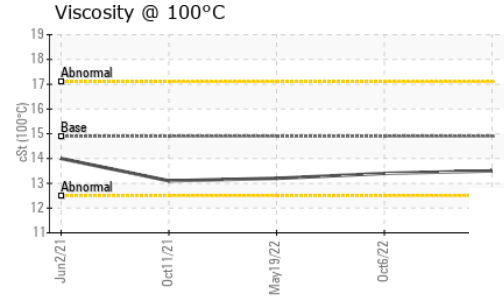
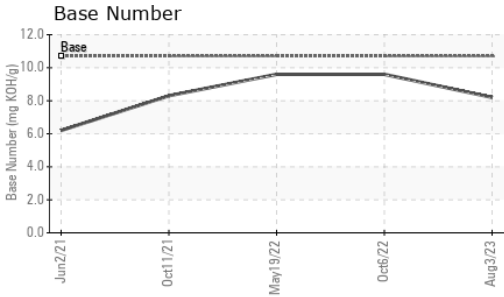
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.5	0.8	0.4
Nitration	Abs/cm *ASTM D7624 >20	8.6	8.2	8.3
Sulfation	Abs/.1mm *ASTM D7415 >30	20.1	23.9	23.8

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	14.3	16.4	17.3
Base Number (BN)	mg KOH/g ASTM D2896 10.7	8.2	9.6	9.6



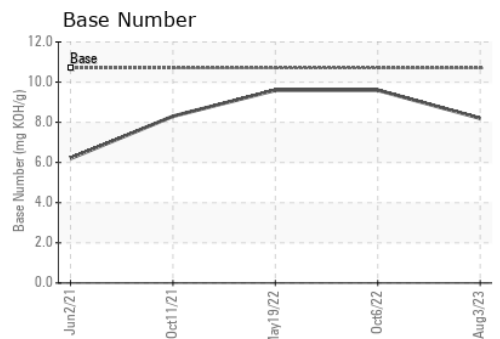
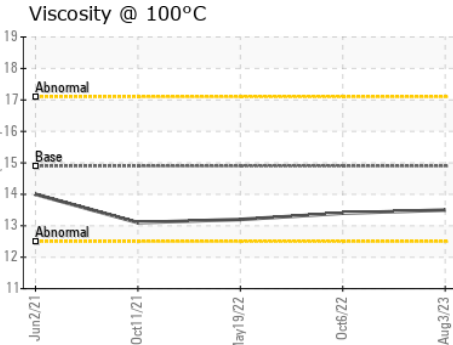
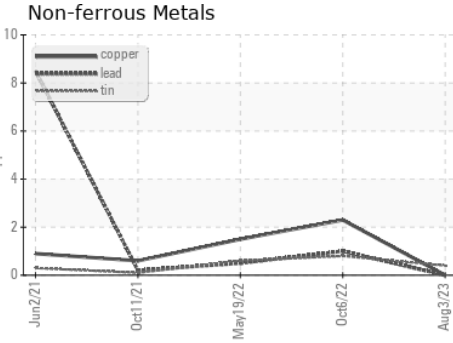
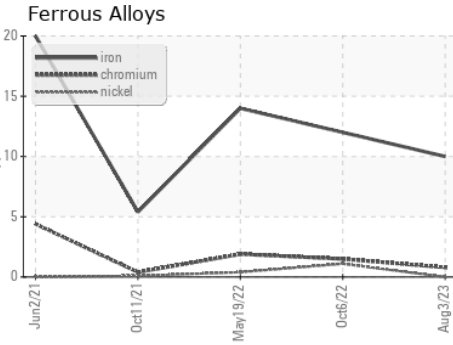
OIL ANALYSIS REPORT



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	14.9	13.5	13.4	13.2

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0084520 **Received** : 08 Aug 2023
Lab Number : **05918406** **Diagnosed** : 09 Aug 2023
Unique Number : 10590320 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 629 - Northern A1
 3947 US 131 N
 Kalkaska, MI
 US 49646-8428
 Contact: MITCH HERSHBERGER

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)

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F: