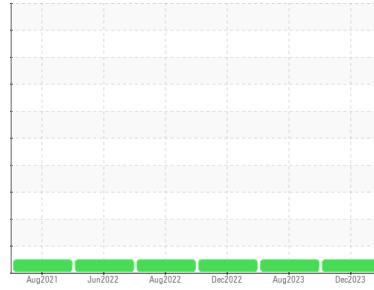




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
525026-899

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		GFL0096104	GFL0084515	GFL0064716
Sample Date	Client Info		13 Dec 2023	21 Aug 2023	21 Dec 2022
Machine Age	hrs	Client Info	6788	21389	23785
Oil Age	hrs	Client Info	700	610	600
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 >100	30	29	32
Chromium	ppm	ASTM D5185m >20	2	1	2
Nickel	ppm	ASTM D5185m >4	0	0	<1
Titanium	ppm	ASTM D5185m	10	14	5
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	5	1	4
Lead	ppm	ASTM D5185m >40	45	29	20
Copper	ppm	ASTM D5185m >330	2	2	2
Tin	ppm	ASTM D5185m >15	2	1	2
Vanadium	ppm	ASTM D5185m	<1	0	<1
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	47	51	78
Barium	ppm	ASTM D5185m	0	2	0
Molybdenum	ppm	ASTM D5185m	62	54	90
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	728	780	610
Calcium	ppm	ASTM D5185m	1581	1737	1665
Phosphorus	ppm	ASTM D5185m 760	788	806	787
Zinc	ppm	ASTM D5185m 830	1004	954	988
Sulfur	ppm	ASTM D5185m 2770	2941	3263	3391

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	12	26	6
Sodium	ppm	ASTM D5185m	4	3	8
Potassium	ppm	ASTM D5185m >20	5	5	2

INFRA-RED

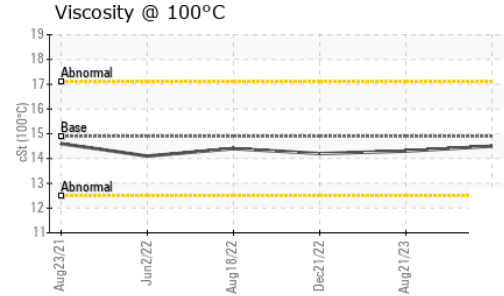
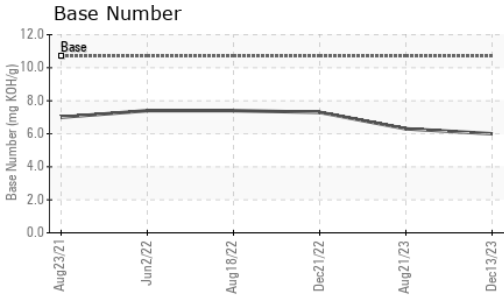
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	1.4	1	1
Nitration	Abs/cm	*ASTM D7624 >20	12.7	11.6	13.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	28.9	25.5	27.5

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	23.0	19.9	22.4
Base Number (BN)	mg KOH/g	ASTM D2896 10.7	6.0	6.3	7.3



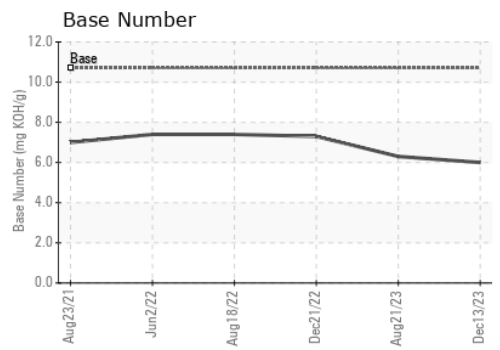
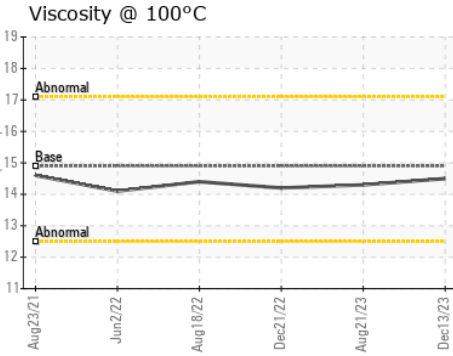
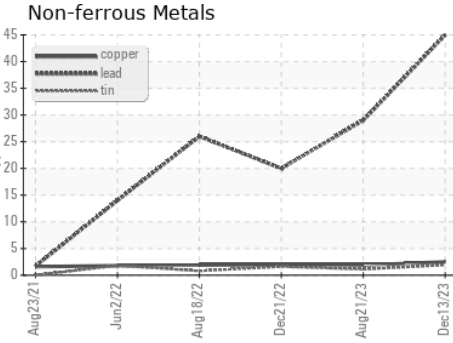
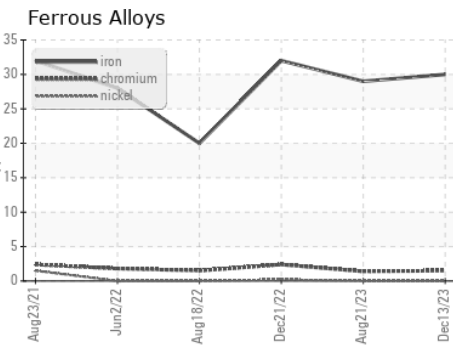
OIL ANALYSIS REPORT



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	14.9	14.5	14.3	14.2

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0096104 **Recieved** : 18 Dec 2023
Lab Number : 06037441 **Diagnosed** : 19 Dec 2023
Unique Number : 10792670 **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: