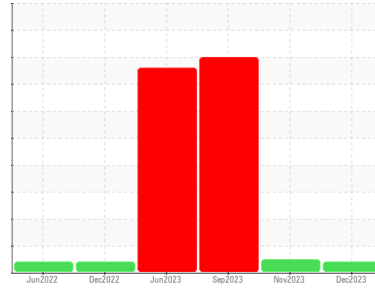




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
323004-846

Component
Gasoline Engine

Fluid
CHEVRON DELO 400 XLE 15W40 (--- GAL)

DIAGNOSIS

▲ Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

▲ Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0096325	GFL0096271	GFL0064429
Sample Date	Client Info	27 Dec 2023	28 Nov 2023	11 Sep 2023
Machine Age	mls	Client Info	174179	147360
Oil Age	mls	Client Info	149605	0
Oil Changed	Client Info	Changed	Not Changd	Not Changd
Sample Status		ATTENTION	NORMAL	SEVERE

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG
Glycol	WC Method		NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>150	123	99	136
Chromium	ppm	ASTM D5185m	>20	3	2	<1
Nickel	ppm	ASTM D5185m	>5	1	<1	▲ 6
Titanium	ppm	ASTM D5185m		2	2	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>40	12	10	■ 118
Lead	ppm	ASTM D5185m	>50	<1	0	1
Copper	ppm	ASTM D5185m	>155	2	1	54
Tin	ppm	ASTM D5185m	>10	<1	0	4
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		0	0	<1

ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m		32	34	48
Barium	ppm	ASTM D5185m		0	2	0
Molybdenum	ppm	ASTM D5185m		69	68	14
Manganese	ppm	ASTM D5185m		4	3	57
Magnesium	ppm	ASTM D5185m		634	540	13
Calcium	ppm	ASTM D5185m		1067	998	126
Phosphorus	ppm	ASTM D5185m	760	756	652	193
Zinc	ppm	ASTM D5185m	830	956	839	26
Sulfur	ppm	ASTM D5185m	2770	3230	3047	1270

CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>30	16	14	16
Sodium	ppm	ASTM D5185m	>400	13	10	10
Potassium	ppm	ASTM D5185m	>20	2	3	6
Fuel	%	ASTM D3524	>4.0	1.2	<1.0	<1.0

INFRA-RED

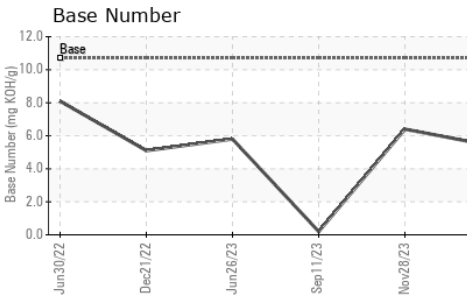
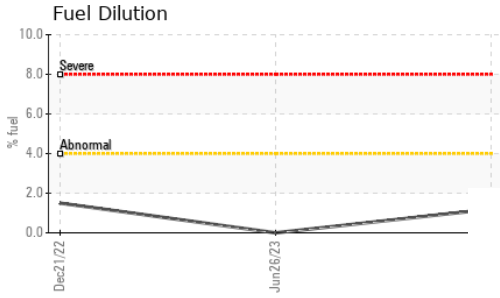
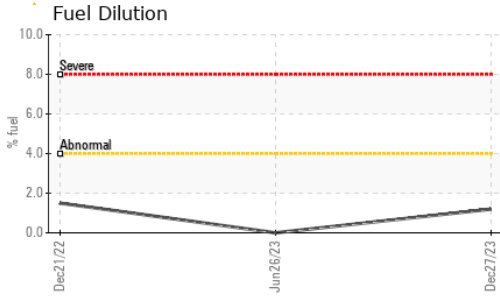
method	limit/base	current	history1	history2		
Soot %	%	*ASTM D7844		0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	24.3	25.1	3.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	42.5	39.8	16.9

FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	*ASTM D7414	>25	46.3	45.4	18.3
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	5.4	6.4	▲ 0.2



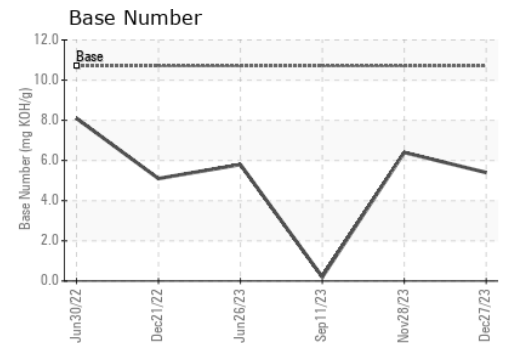
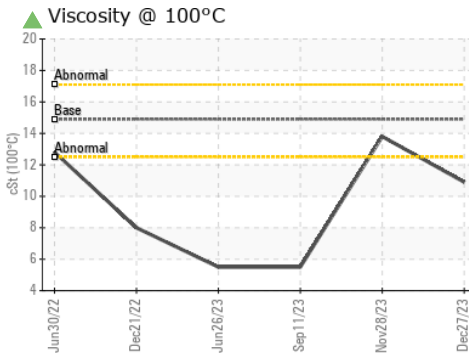
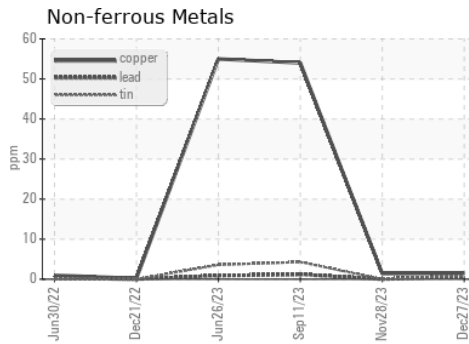
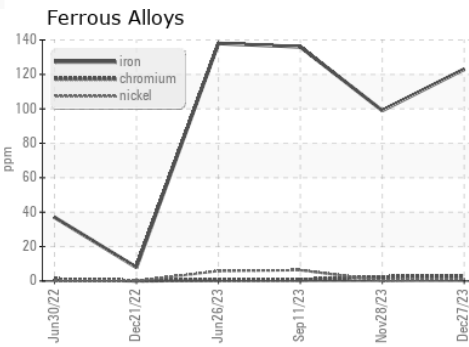
OIL ANALYSIS REPORT



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 ▲ 10.9	13.8	5.5

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0096325 **Received** : 08 Jan 2024
Lab Number : 06054651 **Diagnosed** : 11 Jan 2024
Unique Number : 10820600 **Diagnostician** : Doug Bogart
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 624 - Elmira Hauling
 10164 M-32
 Elmira, MI
 US 49730
 Contact: ANDY GROBASKI
 andyg@americanwaste.org
 T: (989)370-2941
 F:

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)