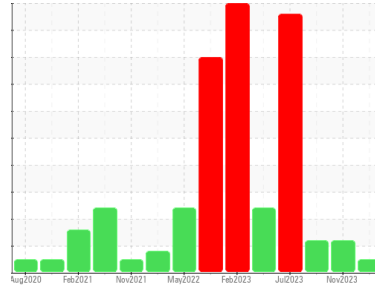




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
822020-117

Component
Diesel Engine

Fluid
CONOCO PHILLIPS GUARDOL ECT 15W40 (--- LTR)

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		GFL0090904	GFL0096490	GFL0096493
Sample Date	Client Info		31 Jan 2024	27 Nov 2023	02 Nov 2023
Machine Age	hrs	Client Info	0	28206	28087
Oil Age	hrs	Client Info	0	588	469
Oil Changed	Client Info		N/A	Changed	Not Changd
Sample Status			NORMAL	ATTENTION	ATTENTION

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	0.0	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >110	10	18	18
Chromium	ppm	ASTM D5185m >4	<1	<1	<1
Nickel	ppm	ASTM D5185m >2	0	0	<1
Titanium	ppm	ASTM D5185m	<1	0	<1
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >25	2	1	2
Lead	ppm	ASTM D5185m >45	0	<1	1
Copper	ppm	ASTM D5185m >85	22	62	48
Tin	ppm	ASTM D5185m >4	<1	<1	<1
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 85	5	7	6
Barium	ppm	ASTM D5185m	0	0	5
Molybdenum	ppm	ASTM D5185m	63	60	68
Manganese	ppm	ASTM D5185m	0	<1	<1
Magnesium	ppm	ASTM D5185m 350	887	919	902
Calcium	ppm	ASTM D5185m 1800	1086	1116	1063
Phosphorus	ppm	ASTM D5185m 1000	985	1010	1078
Zinc	ppm	ASTM D5185m 1100	1204	1234	1215
Sulfur	ppm	ASTM D5185m 3500	3020	2528	3103

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	4	8	10
Sodium	ppm	ASTM D5185m	2	12	9
Potassium	ppm	ASTM D5185m >20	18	▲ 61	▲ 64

INFRA-RED

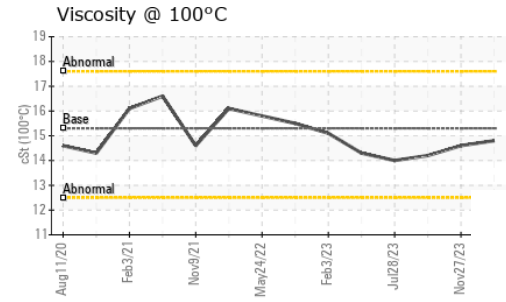
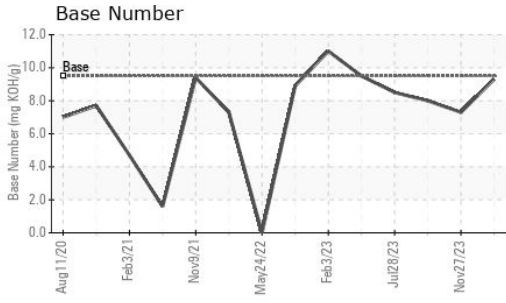
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	2.4	2.5	1.8
Nitration	Abs/cm	*ASTM D7624 >20	9.7	12.4	11.0
Sulfation	Abs/.1mm	*ASTM D7415 >30	23.7	25.8	23.7

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	15.9	19.4	17.9
Base Number (BN)	mg KOH/g	ASTM D2896 9.5	9.3	7.3	8.0



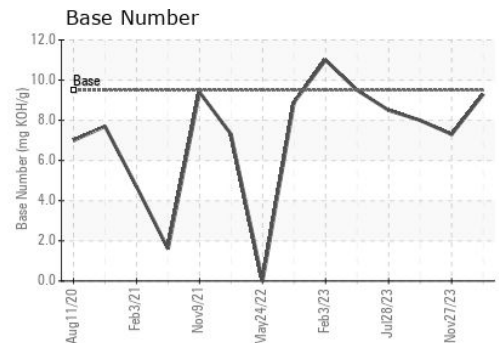
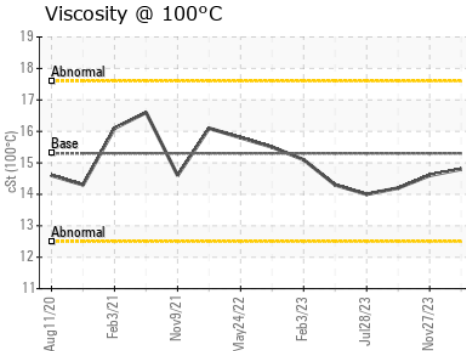
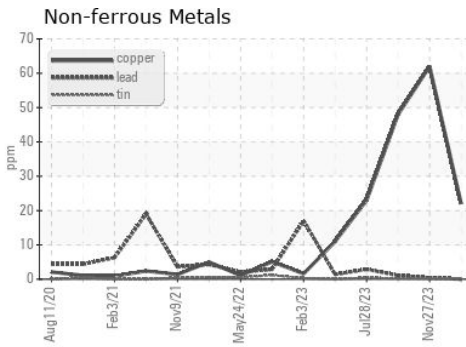
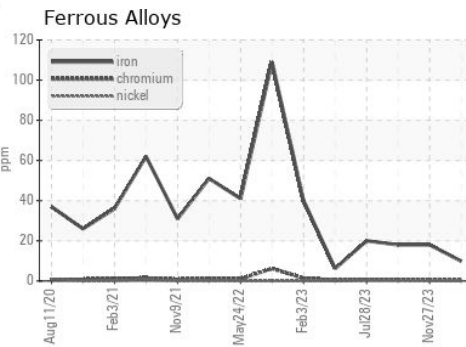
OIL ANALYSIS REPORT



PARAMETER	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	15.3	14.8	14.6

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0090904
 Lab Number : 06077593
 Unique Number : 10859684
 Test Package : FLEET

GFL Environmental - 656 - Culpeper Hauling
 15490 Montanus Drive
 Culpeper, VA
 US 22701
 Contact: Matt Hanna
 mhanna@gflenv.com
 T: (540)727-0887
 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)