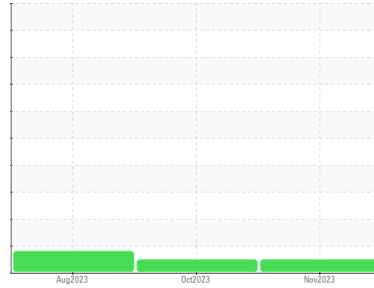




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
Rent513

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 40 (--- 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

Test for glycol is negative. 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	GFL0089974	GFL0080514	GFL0080583
Sample Date	Client Info	07 Nov 2023	13 Oct 2023	04 Aug 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		NORMAL	NORMAL	ABNORMAL

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

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >80	6	4	▲ 98
Chromium	ppm ASTM D5185m >5	<1	0	2
Nickel	ppm ASTM D5185m >2	0	<1	<1
Titanium	ppm ASTM D5185m	0	0	0
Silver	ppm ASTM D5185m >3	0	0	<1
Aluminum	ppm ASTM D5185m >30	4	0	25
Lead	ppm ASTM D5185m >30	0	<1	0
Copper	ppm ASTM D5185m >150	1	<1	16
Tin	ppm ASTM D5185m >5	0	0	<1
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 250	5	25	1
Barium	ppm ASTM D5185m 10	0	2	0
Molybdenum	ppm ASTM D5185m 100	57	57	62
Manganese	ppm ASTM D5185m	0	<1	1
Magnesium	ppm ASTM D5185m 450	981	763	904
Calcium	ppm ASTM D5185m 3000	1090	967	1118
Phosphorus	ppm ASTM D5185m 1150	1027	882	986
Zinc	ppm ASTM D5185m 1350	1298	1002	1212
Sulfur	ppm ASTM D5185m 4250	3150	2686	2570

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >20	3	3	11
Sodium	ppm ASTM D5185m >216	8	0	0
Potassium	ppm ASTM D5185m >20	88	1	52
Glycol	% *ASTM D2982	0.0	NEG	NEG

INFRA-RED

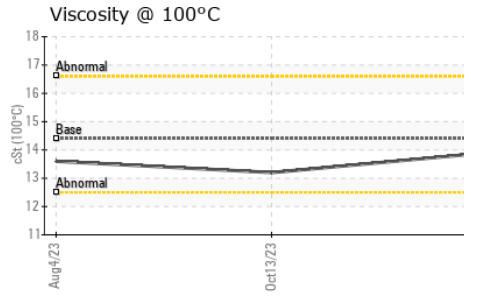
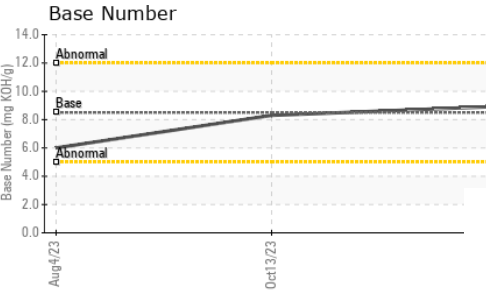
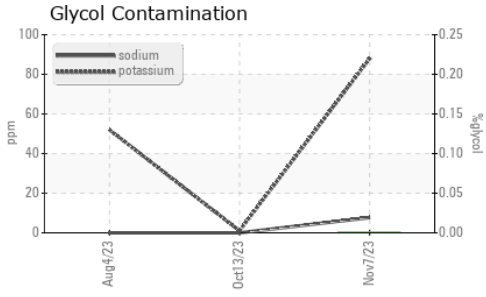
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.2	0.4	1.2
Nitration	Abs/cm *ASTM D7624 >20	5.4	4.7	12.8
Sulfation	Abs/.1mm *ASTM D7415 >30	17.8	16.4	25.0

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	13.7	11.1	24.1
Base Number (BN)	mg KOH/g ASTM D2896 8.5	8.9	8.3	6.0



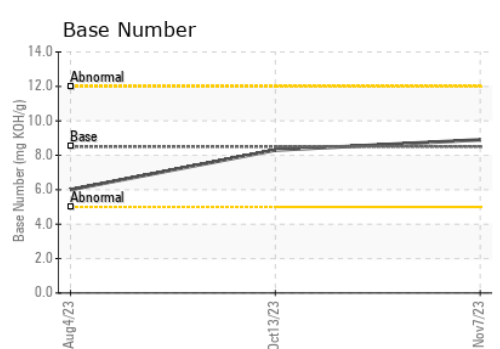
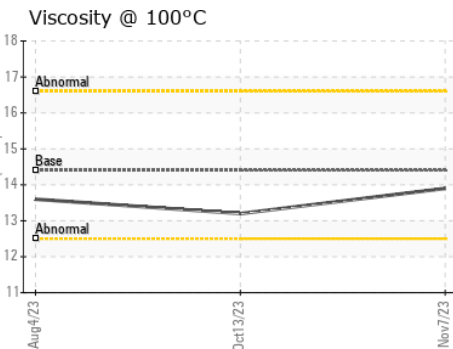
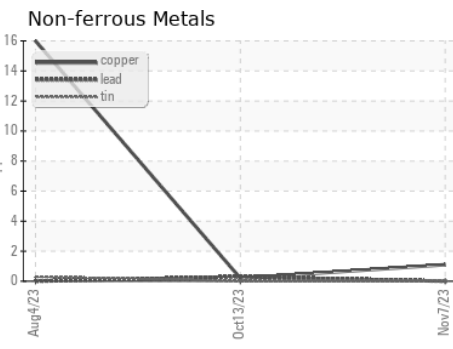
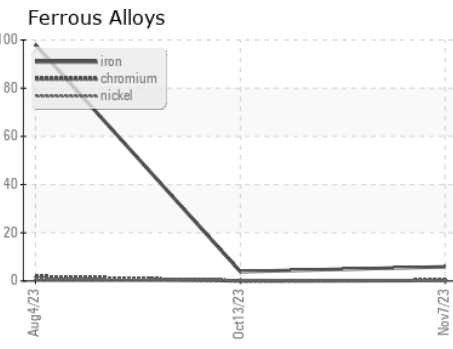
OIL ANALYSIS REPORT



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	14.4	13.9	13.2

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0089974 **Received** : 09 Nov 2023
Lab Number : 06002779 **Diagnosed** : 22 Nov 2023
Unique Number : 10736541 **Diagnostician** : Doug Bogart
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 018 - Fayetteville
 4621 Marracco Drive
 Hope Mills, NC
 US 28348
 Contact: Robert Carter
 robert.carter@gflenv.com
 T: (910)596-1170
 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)