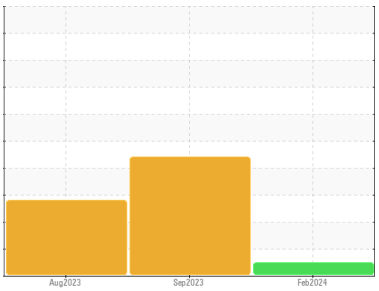
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
822052 PETERBILT 320
Component
Diesel Engine
Fluid
TIER ONE 15W40 (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor. (Customer Sample Comment: Serviced only)

Wear
All component wear rates are normal.

Contamination
Fuel content negligible. 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		**GFL0102221**	GFL0061457	GFL0061453
Sample Date		Client Info		**26 Feb 2024**	13 Sep 2023	09 Aug 2023
Machine Age	hrs	Client Info		**13887**	13410	13244
Oil Age	hrs	Client Info		**100**	600	600
Oil Changed		Client Info		**Not Changd**	Not Changd	Changed
Sample Status				**NORMAL**	SEVERE	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
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	>110	**12**	17	28
Chromium	ppm	ASTM D5185m	>4	**<1**	1	<1
Nickel	ppm	ASTM D5185m	>2	**0**	0	0
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**6**	22	12
Lead	ppm	ASTM D5185m	>45	**0**	<1	<1
Copper	ppm	ASTM D5185m	>85	**2**	2	13
Tin	ppm	ASTM D5185m	>4	**0**	0	0
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		**10**	2	6
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**55**	37	38
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**858**	534	559
Calcium	ppm	ASTM D5185m		**1020**	680	791
Phosphorus	ppm	ASTM D5185m		**1017**	611	660
Zinc	ppm	ASTM D5185m		**1201**	753	816
Sulfur	ppm	ASTM D5185m		**3027**	2090	2430

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	**7**	6	8
Sodium	ppm	ASTM D5185m		**7**	4	10
Potassium	ppm	ASTM D5185m	>20	**18**	76	46
Fuel	%	ASTM D3524	>5	**1.6**	▲ 30.8	▲ 34.6

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.5**	0	0.4
Nitration	Abs/cm	*ASTM D7624	>20	**7.5**	12.3	10.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	**19.4**	21.6	18.8

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**14.7**	18.7	16.8
Base Number (BN)	mg KOH/g	ASTM D2896		**8.9**	7.9	5.9

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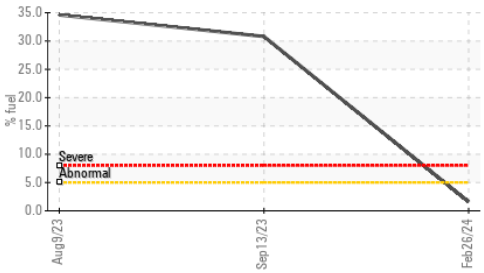
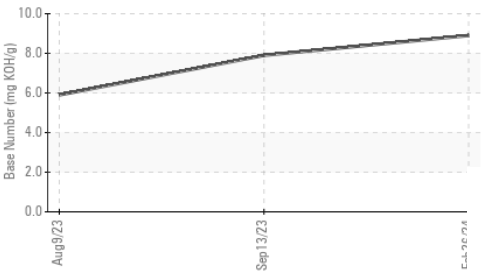
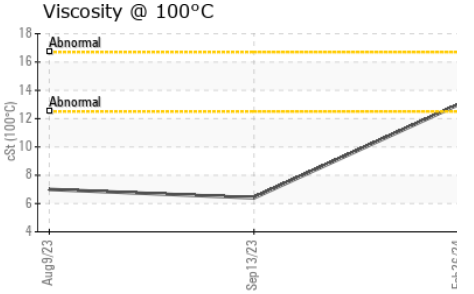
Fuel Dilution



Base Number



Viscosity @ 100°C

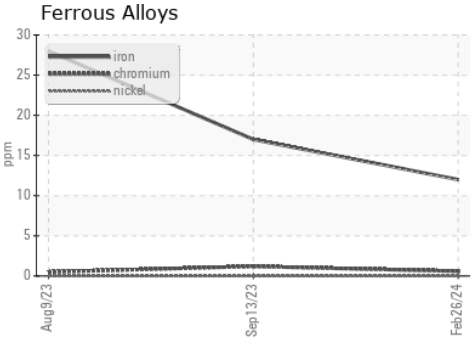


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

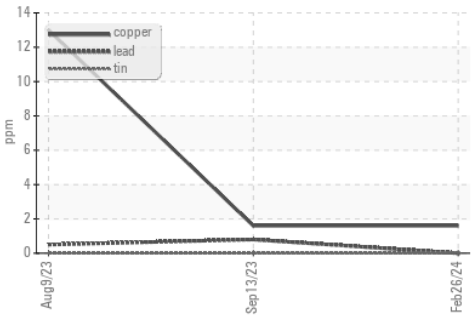
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445		**13.0**	▲ 6.4	▲ 7

GRAPHS

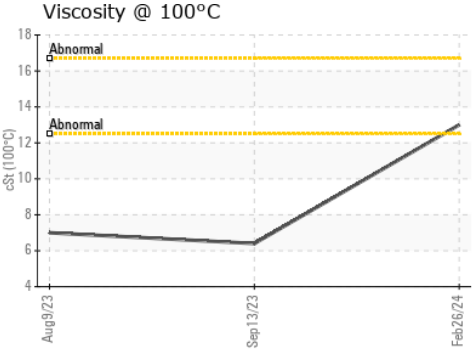
Ferrous Alloys



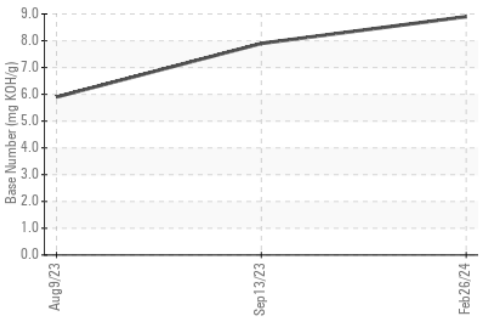
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0102221
Lab Number : 06103588
Unique Number : 10901818
Test Package : FLEET (Additional Tests: PercentFuel)

Received : 28 Feb 2024
Tested : 05 Mar 2024
Diagnosed : 05 Mar 2024 - Jonathan Hester

GFL Environmental - 642- Grand Rapids Hauling
5826 Alden Nash Ave SE
Lowell, MI
US 49331
Contact: Josh Arnett
joshuaarnett@gflenv.com
T:
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)