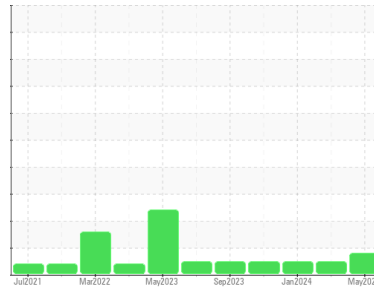




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
944032-260231

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (7 GAL)

DIAGNOSIS

Recommendation

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

Wear

The iron level is abnormal. All other 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 acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0120938	GFL0114565	GFL0081078
Sample Date	Client Info	23 May 2024	24 Apr 2024	03 Jan 2024
Machine Age	hrs	8998	8966	8028
Oil Age	hrs	970	938	1200
Oil Changed	Client Info	Changed	Not Changd	Changed
Sample Status		ABNORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.1	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >50	▲ 67	39	15
Chromium	ppm ASTM D5185m >4	4	2	1
Nickel	ppm ASTM D5185m >2	3	<1	<1
Titanium	ppm ASTM D5185m	<1	<1	<1
Silver	ppm ASTM D5185m >3	<1	0	0
Aluminum	ppm ASTM D5185m >9	10	8	3
Lead	ppm ASTM D5185m >30	<1	0	0
Copper	ppm ASTM D5185m >35	2	0	<1
Tin	ppm ASTM D5185m >4	0	<1	<1
Vanadium	ppm ASTM D5185m	<1	0	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 50	5	7	7
Barium	ppm ASTM D5185m 5	0	0	0
Molybdenum	ppm ASTM D5185m 50	66	65	57
Manganese	ppm ASTM D5185m 0	1	<1	<1
Magnesium	ppm ASTM D5185m 560	600	609	588
Calcium	ppm ASTM D5185m 1510	1970	1891	1731
Phosphorus	ppm ASTM D5185m 780	863	842	751
Zinc	ppm ASTM D5185m 870	1082	1084	1035
Sulfur	ppm ASTM D5185m 2040	3130	2929	2497

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >+100	13	10	5
Sodium	ppm ASTM D5185m	13	11	14
Potassium	ppm ASTM D5185m >20	24	20	2

INFRA-RED

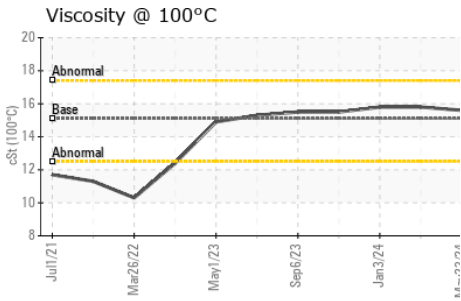
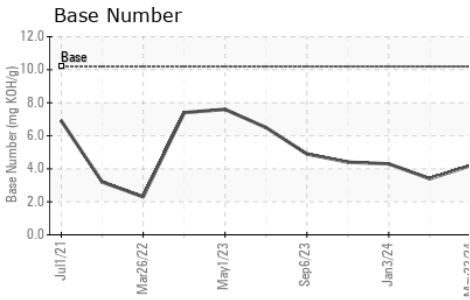
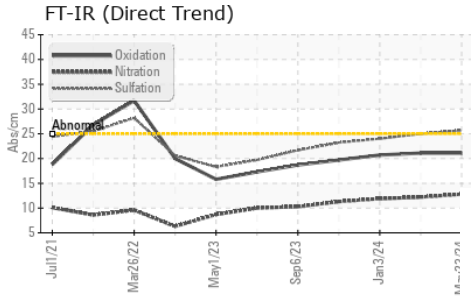
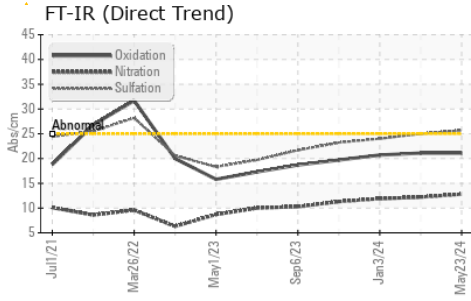
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844	0.1	0.1	0
Nitration	Abs/cm *ASTM D7624 >20	12.8	12.2	11.9
Sulfation	Abs/.1mm *ASTM D7415 >30	25.7	25.0	24.0

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	21.1	21.1	20.7
Base Number (BN)	mg KOH/g ASTM D2896 10.2	4.2	3.4	4.3



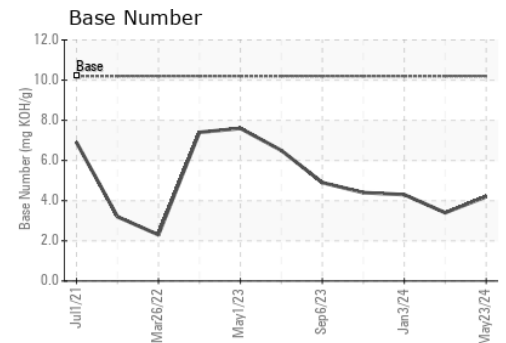
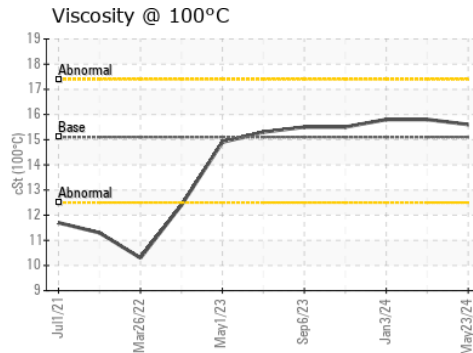
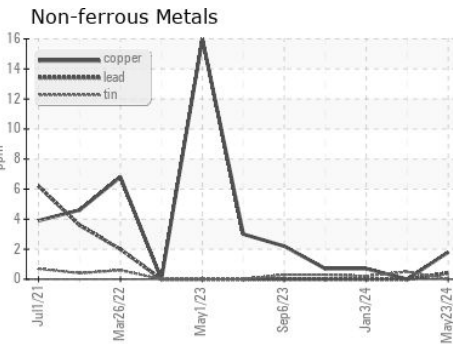
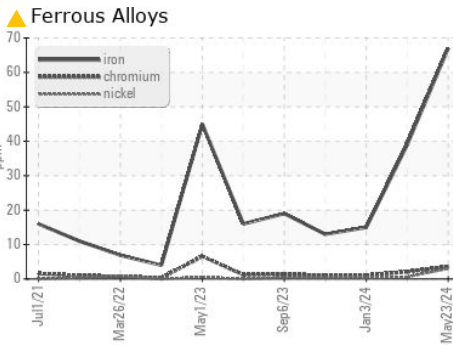
OIL ANALYSIS REPORT



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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	15.6	15.8

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0120938
Lab Number : 06191578
Unique Number : 11048330
Test Package : FLEET

Received : 24 May 2024
Tested : 29 May 2024
Diagnosed : 29 May 2024 - Angela Borella

GFL Environmental - 884 - Lake County - Tavares
 321 Southridge Industrial Way
 Tavares, FL
 US 32778
 Contact: JEFF COOPERSMITH

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: