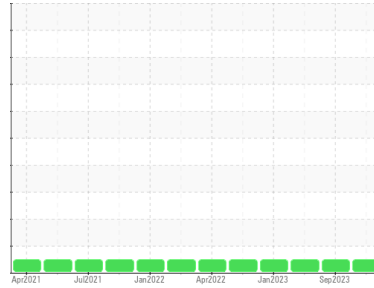




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
{UNASSIGNED}
 Machine Id
749011-362011

Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (7 GAL)

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	GFL0081038	GFL0081122	GFL0081069
Sample Date	Client Info	08 Dec 2023	14 Sep 2023	14 Jun 2023
Machine Age	hrs	27872	13067	12508
Oil Age	hrs	700	308	352
Oil Changed	Client Info	Not Chngd	Not Chngd	Not Chngd
Sample Status		NORMAL	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	9	7	3
Chromium	ppm	ASTM D5185m >4	<1	<1	1
Nickel	ppm	ASTM D5185m >2	0	0	<1
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >9	2	1	2
Lead	ppm	ASTM D5185m >30	<1	<1	2
Copper	ppm	ASTM D5185m >35	0	<1	2
Tin	ppm	ASTM D5185m >4	<1	<1	1
Vanadium	ppm	ASTM D5185m	0	<1	<1
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 50	8	14	12
Barium	ppm	ASTM D5185m 5	0	0	0
Molybdenum	ppm	ASTM D5185m 50	52	48	48
Manganese	ppm	ASTM D5185m 0	<1	<1	1
Magnesium	ppm	ASTM D5185m 560	544	547	532
Calcium	ppm	ASTM D5185m 1510	1605	1741	1649
Phosphorus	ppm	ASTM D5185m 780	708	777	796
Zinc	ppm	ASTM D5185m 870	1008	990	1028
Sulfur	ppm	ASTM D5185m 2040	2499	3021	3074

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >+100	4	3	3
Sodium	ppm	ASTM D5185m	6	6	5
Potassium	ppm	ASTM D5185m >20	<1	2	2

INFRA-RED

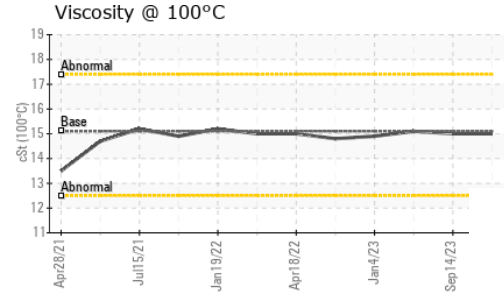
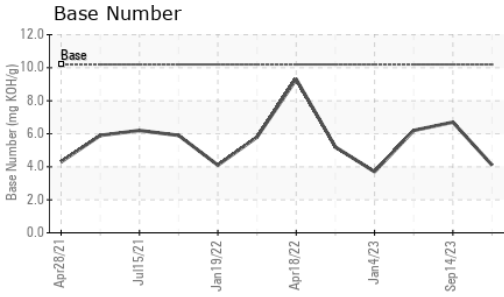
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	0	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	11.3	8.5	9.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.8	19.1	20.6

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	19.1	16.4	18.2
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	4.1	6.7	6.2



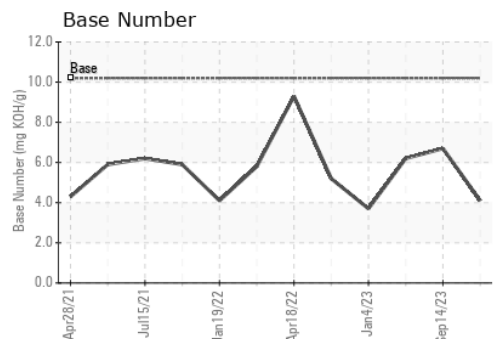
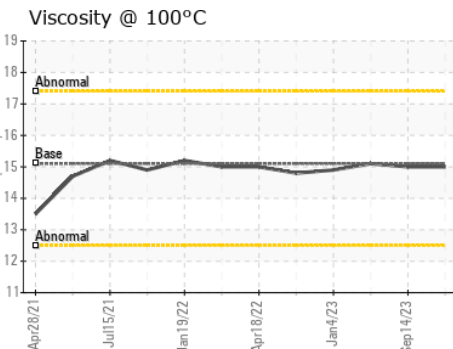
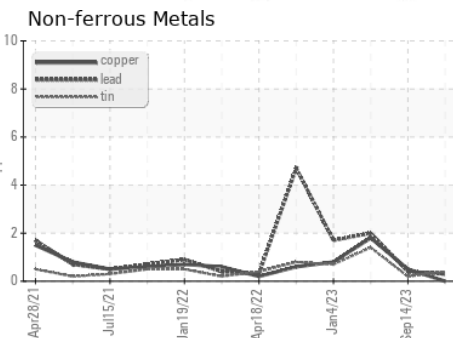
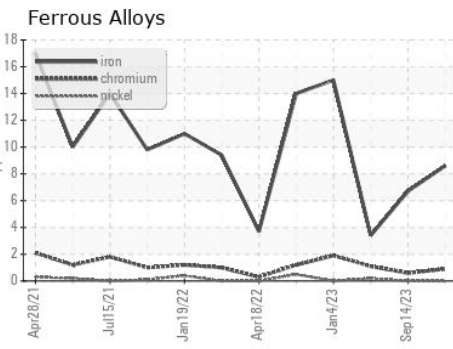
OIL ANALYSIS REPORT



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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.1	15.0	15.0	15.1

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0081038 **Received** : 13 Dec 2023
Lab Number : **06034085** **Diagnosed** : 14 Dec 2023
Unique Number : 10789314 **Diagnostician** : Wes Davis
Test Package : FLEET

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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