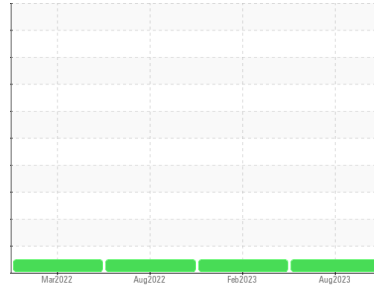




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
731043
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON GEO LD 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 condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0085860	GFL0071063	GFL0054858
Sample Date	Client Info	10 Aug 2023	11 Feb 2023	25 Aug 2022
Machine Age	hrs	5383	4382	3231
Oil Age	hrs	1200	1200	1000
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		NORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	---	---	0.0

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >50	10	13	14
Chromium	ppm	ASTM D5185(m) >4	<1	<1	1
Nickel	ppm	ASTM D5185(m) >2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	0	<1	<1
Silver	ppm	ASTM D5185(m) >3	0	0	0
Aluminum	ppm	ASTM D5185(m) >9	2	2	2
Lead	ppm	ASTM D5185(m) >30	2	2	1
Copper	ppm	ASTM D5185(m) >35	2	3	2
Tin	ppm	ASTM D5185(m) >4	<1	<1	<1
Antimony	ppm	ASTM D5185(m)	0	0	0
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m) 50	7	6	7
Barium	ppm	ASTM D5185(m) 5	0	0	0
Molybdenum	ppm	ASTM D5185(m) 50	53	53	56
Manganese	ppm	ASTM D5185(m) 0	<1	<1	1
Magnesium	ppm	ASTM D5185(m) 560	582	574	572
Calcium	ppm	ASTM D5185(m) 1510	1526	1705	1608
Phosphorus	ppm	ASTM D5185(m) 780	713	747	683
Zinc	ppm	ASTM D5185(m) 870	915	942	918
Sulfur	ppm	ASTM D5185(m) 2040	2025	2062	2104
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >+100	4	4	5
Sodium	ppm	ASTM D5185(m)	8	10	9
Potassium	ppm	ASTM D5185(m) >20	<1	<1	9

INFRA-RED

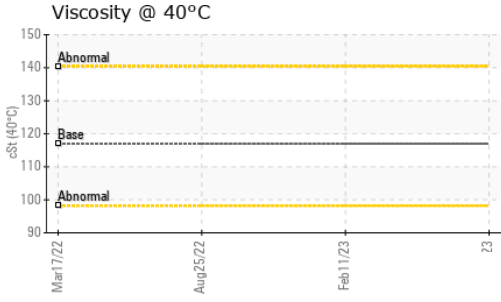
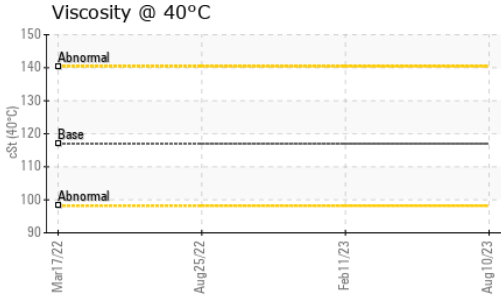
method	limit/base	current	history1	history2		
Soot %	%	ASTM D7844*	0	0	0	
Nitration	Abs/cm	ASTM D7624*	>20	11.3	12.9	11.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	24.1	26.2	23.7

FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.2	20.1	19.1



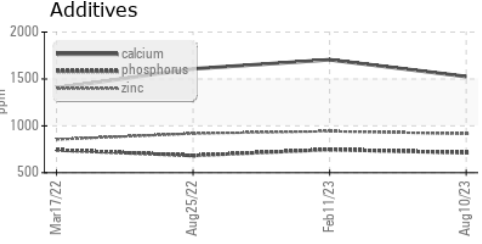
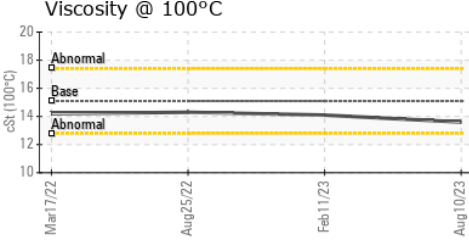
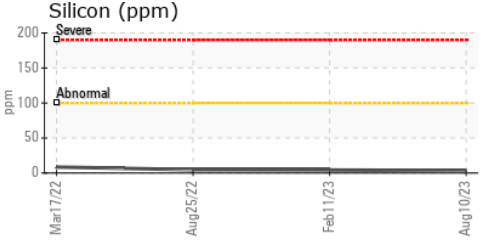
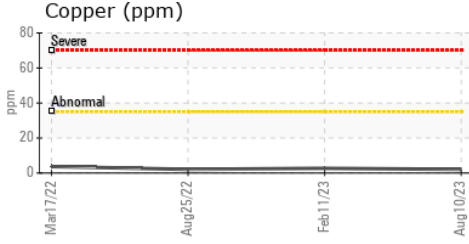
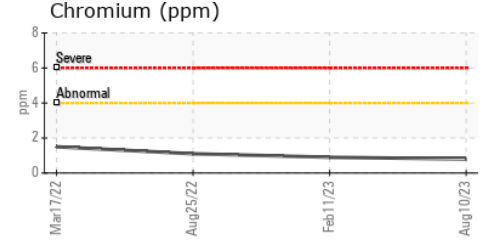
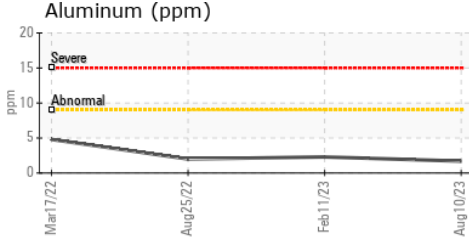
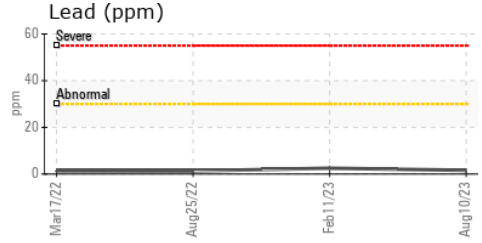
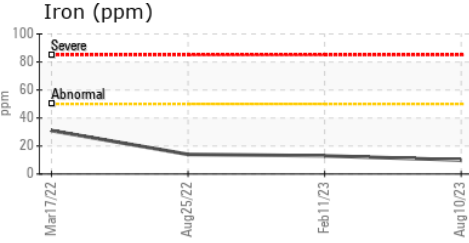
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	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 @ 40°C	cSt	ASTM D7279(m)	117.0	101	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	13.6	14.1
Viscosity Index (VI)	Scale	ASTM D2270*	134	134	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 209 - Hamilton**
Sample No. : GFL0085860 **Received** : 14 Aug 2023 560 Seaman Street
Lab Number : 02575569 **Diagnosed** : 14 Aug 2023 Stoney Creek, ON
Unique Number : 5620620 **Diagnostician** : Wes Davis CA L8E 3X7
Test Package : MOB 1 (Additional Tests: KV40, VI, Visual) Contact: Fred Carleton
fred.carleton@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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