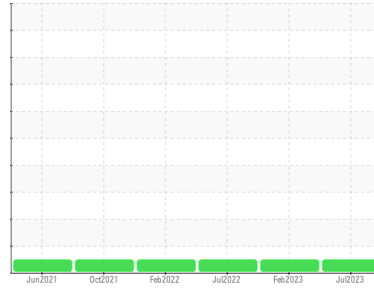




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
819002

Component
Diesel Engine

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

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	GFL0084159	GFL0073063	GFL0050463	
Sample Date	Client Info	12 Jul 2023	16 Feb 2023	20 Jul 2022	
Machine Age	kms	Client Info	10260	9162	83152
Oil Age	kms	Client Info	0	1200	0
Oil Changed	Client Info	N/A	N/A	Changed	
Sample Status		NORMAL	NORMAL	NORMAL	

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	<1.0
Glycol	WC Method	NEG	NEG	0.0

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >80	15	12	11
Chromium	ppm	ASTM D5185(m) >5	<1	<1	<1
Nickel	ppm	ASTM D5185(m) >2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	<1	<1	<1
Silver	ppm	ASTM D5185(m) >3	0	0	0
Aluminum	ppm	ASTM D5185(m) >30	2	2	1
Lead	ppm	ASTM D5185(m) >30	6	7	5
Copper	ppm	ASTM D5185(m) >150	<1	<1	<1
Tin	ppm	ASTM D5185(m) >5	<1	<1	<1
Antimony	ppm	ASTM D5185(m)	<1	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	10	20	10
Barium	ppm	ASTM D5185(m) 5	0	0	0
Molybdenum	ppm	ASTM D5185(m) 50	61	59	56
Manganese	ppm	ASTM D5185(m) 0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m) 560	659	638	600
Calcium	ppm	ASTM D5185(m) 1510	1762	1872	1724
Phosphorus	ppm	ASTM D5185(m) 780	822	910	750
Zinc	ppm	ASTM D5185(m) 870	1016	1015	972
Sulfur	ppm	ASTM D5185(m) 2040	2063	2180	2128
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >20	3	3	3
Sodium	ppm	ASTM D5185(m)	10	4	8
Potassium	ppm	ASTM D5185(m) >20	<1	0	7

INFRA-RED

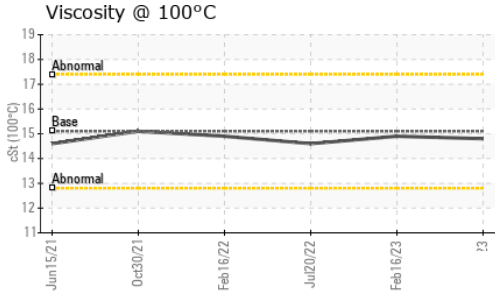
method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844* >3	0	0	0
Nitration	Abs/cm	ASTM D7624* >20	13.0	5.8	11.0
Sulfation	Abs/.1mm	ASTM D7415* >30	27.9	17.9	23.0

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414* >25	23.6	10.0	19.8



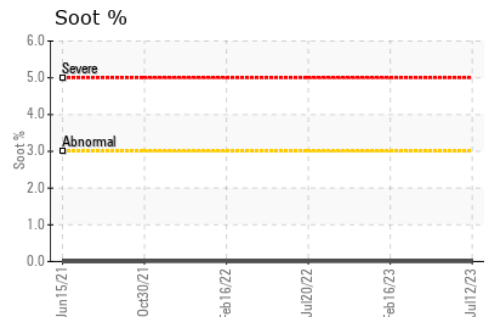
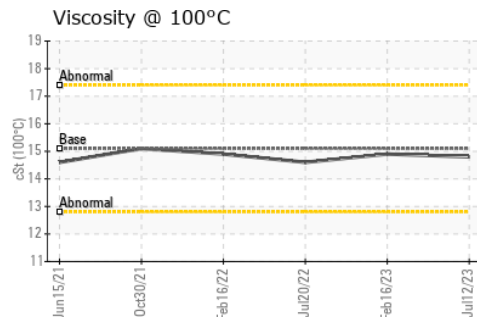
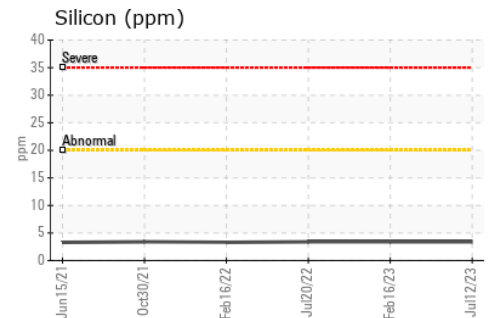
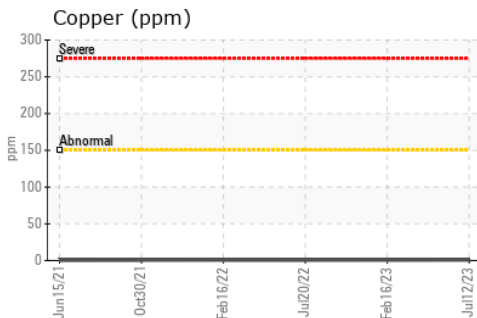
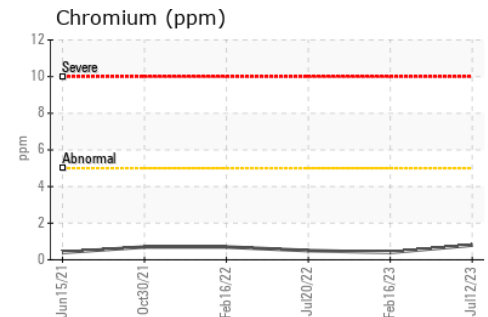
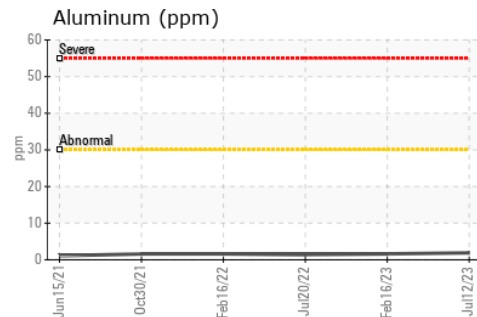
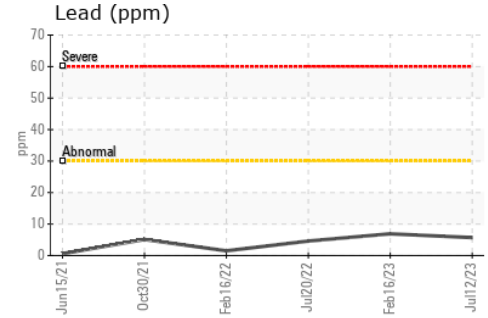
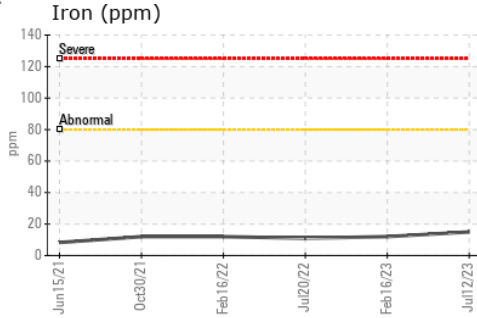
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
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 D7279(m)	15.1	14.8	14.9

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 574 - Vancouver Fleet
Sample No. : GFL0084159 **Received** : 02 Aug 2023
Lab Number : 02573627 **Diagnosed** : 02 Aug 2023
Unique Number : 5618678 **Diagnostician** : Wes Davis
Test Package : MOB 1

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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