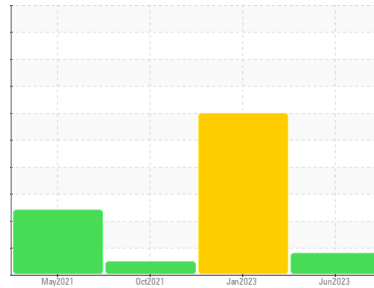




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
901111

Component
Natural Gas Engine

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

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

Lead ppm levels are abnormal. The lead level has decreased, but is still abnormal. Bearing wear is indicated.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0057425	GFL0063587	GFL0020824
Sample Date	Client Info	14 Jun 2023	20 Jan 2023	05 Oct 2021
Machine Age	hrs	4407	3287	1337
Oil Age	hrs	600	600	600
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		ABNORMAL	SEVERE	NORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >50	11	22	5
Chromium	ppm	ASTM D5185(m) >4	<1	2	<1
Nickel	ppm	ASTM D5185(m) >2	0	<1	<1
Titanium	ppm	ASTM D5185(m)	<1	<1	0
Silver	ppm	ASTM D5185(m) >3	<1	0	<1
Aluminum	ppm	ASTM D5185(m) >9	2	4	3
Lead	ppm	ASTM D5185(m) >30	34	120	<1
Copper	ppm	ASTM D5185(m) >35	11	29	<1
Tin	ppm	ASTM D5185(m) >4	<1	1	<1
Antimony	ppm	ASTM D5185(m)	0	<1	<1
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	13	13	15
Barium	ppm	ASTM D5185(m) 5	0	0	0
Molybdenum	ppm	ASTM D5185(m) 50	52	55	50
Manganese	ppm	ASTM D5185(m) 0	<1	1	<1
Magnesium	ppm	ASTM D5185(m) 560	604	655	547
Calcium	ppm	ASTM D5185(m) 1510	1655	1791	1482
Phosphorus	ppm	ASTM D5185(m) 780	800	926	734
Zinc	ppm	ASTM D5185(m) 870	946	1066	910
Sulfur	ppm	ASTM D5185(m) 2040	1902	2127	1982
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >+100	8	25	6
Sodium	ppm	ASTM D5185(m)	28	10	22
Potassium	ppm	ASTM D5185(m) >20	8	11	43
Glycol	%	ASTM D7922*	0.0	---	0.0

INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	0	0	0
Nitration	Abs/cm	ASTM D7624*	13.3	13.1	11.1
Sulfation	Abs/.1mm	ASTM D7415*	27.8	30.2	24.6

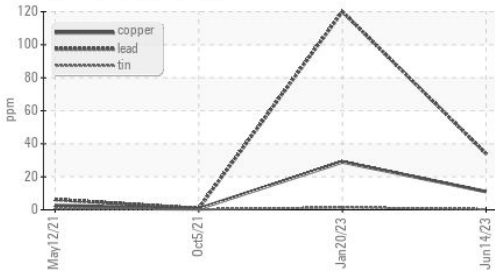
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	27.3	29.9	20.3



OIL ANALYSIS REPORT

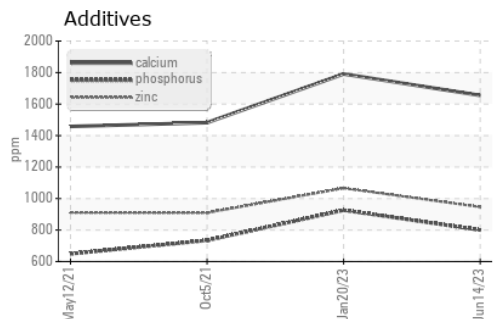
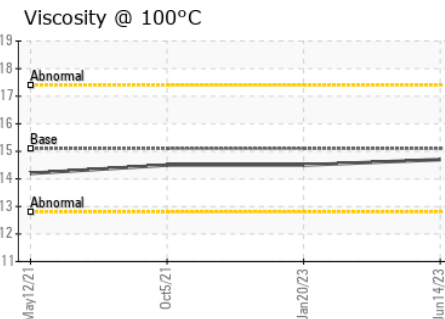
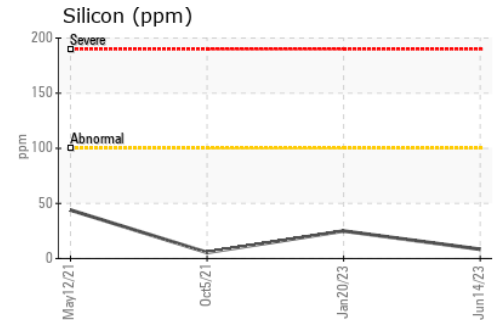
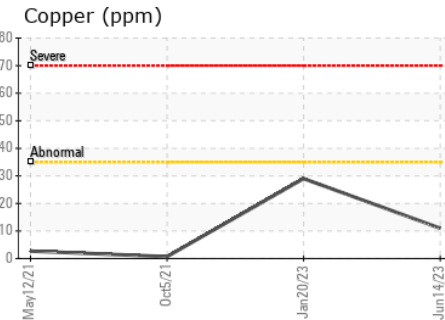
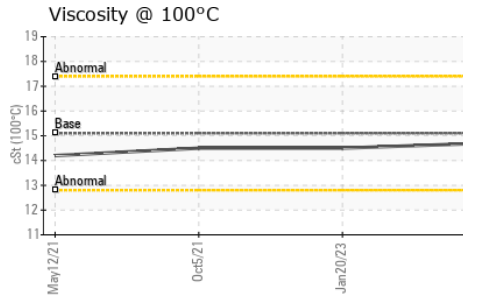
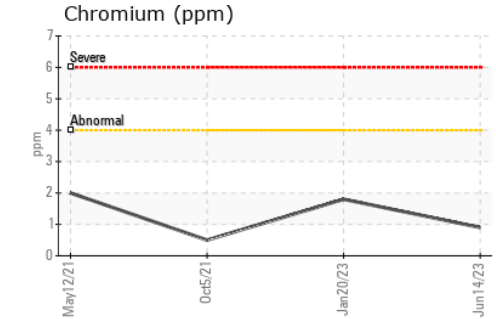
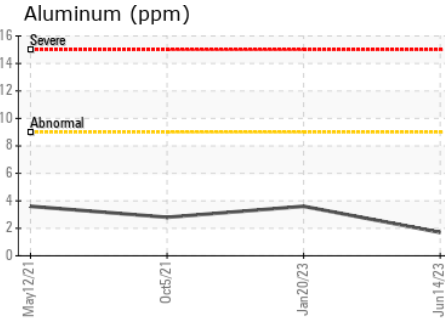
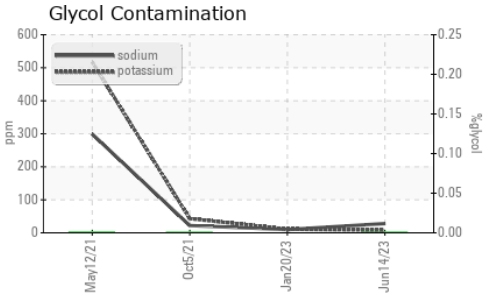
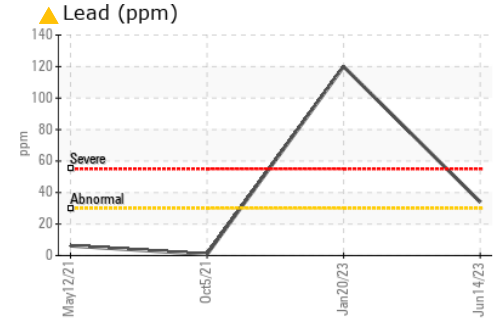
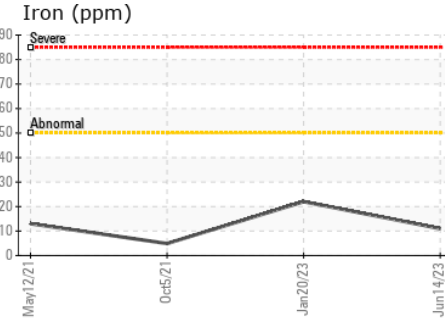
▲ Non-ferrous Metals



VISUAL	method	limit/base	current	history1	history2
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 D7279(m)	15.1	14.5	14.5

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 574 - Vancouver Fleet
Sample No. : GFL0057425 **Received** : 14 Jul 2023
Lab Number : 02570093 **Diagnosed** : 14 Jul 2023
Unique Number : 5607139 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: Glycol)

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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