



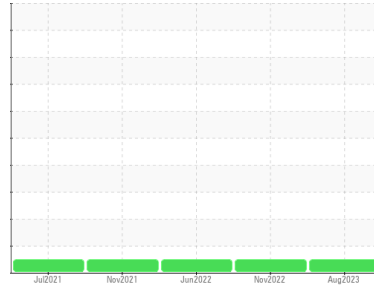
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
830000
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON HP 15W40 (--- LTR)



DIAGNOSIS

Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. 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

Additive levels indicate the addition of a different brand, or type of 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		GFL0090601	GFL0059956	GFL0054173
Sample Date	Client Info		23 Aug 2023	20 Nov 2022	25 Jun 2022
Machine Age	hrs	Client Info	10485	8328	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Changed	N/A	Changed
Sample Status			NORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >50	18	12	12
Chromium	ppm	ASTM D5185(m) >4	1	<1	<1
Nickel	ppm	ASTM D5185(m) >2	<1	<1	0
Titanium	ppm	ASTM D5185(m)	0	<1	<1
Silver	ppm	ASTM D5185(m) >3	0	0	0
Aluminum	ppm	ASTM D5185(m) >9	2	5	3
Lead	ppm	ASTM D5185(m) >30	2	2	<1
Copper	ppm	ASTM D5185(m) >35	2	1	<1
Tin	ppm	ASTM D5185(m) >4	1	<1	<1
Antimony	ppm	ASTM D5185(m)	0	<1	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) 0	9	10	13
Barium	ppm	ASTM D5185(m) 0	5	0	0
Molybdenum	ppm	ASTM D5185(m) 60	51	58	54
Manganese	ppm	ASTM D5185(m) 0	2	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	539	628	596
Calcium	ppm	ASTM D5185(m) 1070	1568	1798	1752
Phosphorus	ppm	ASTM D5185(m) 1150	708	838	775
Zinc	ppm	ASTM D5185(m) 1270	874	1011	995
Sulfur	ppm	ASTM D5185(m) 2060	1891	2075	2104
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >+100	14	6	6
Sodium	ppm	ASTM D5185(m)	4	4	4
Potassium	ppm	ASTM D5185(m) >20	2	5	4

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	12.5	11.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	25.8	23.1

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.8	22.2
				18.9	

VISUAL

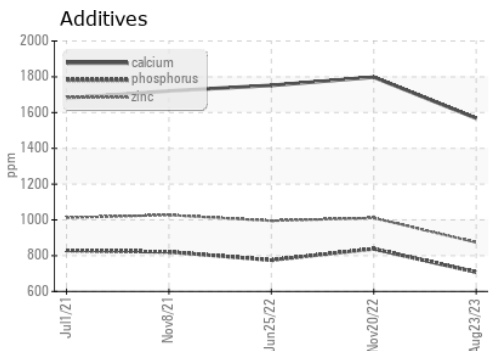
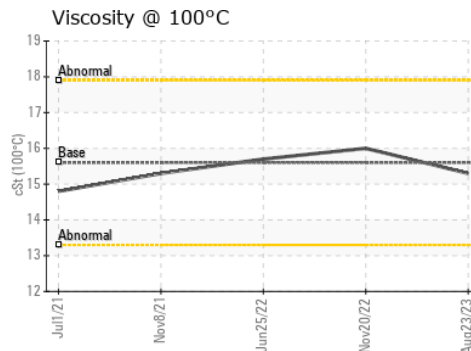
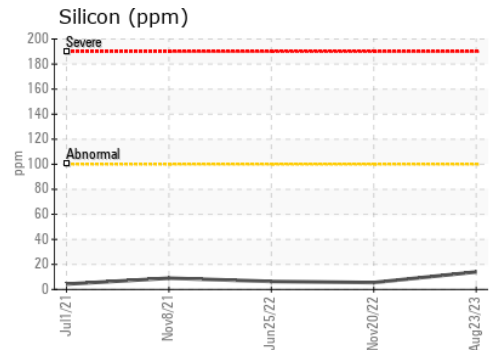
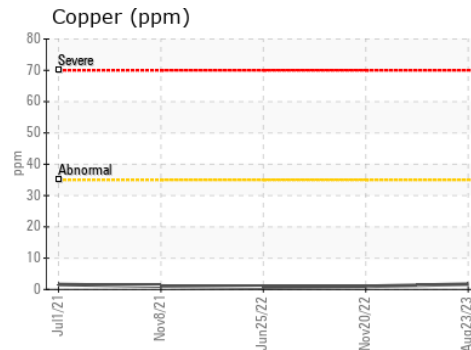
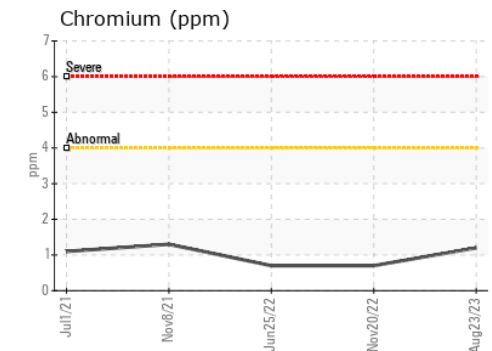
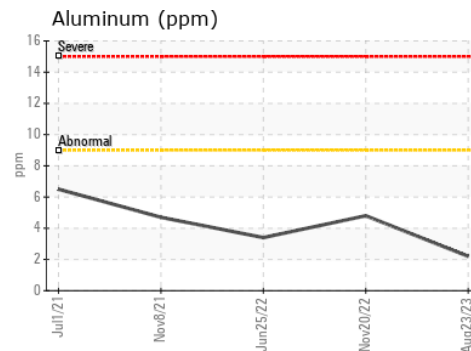
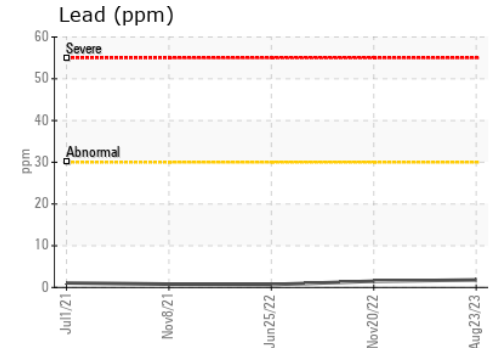
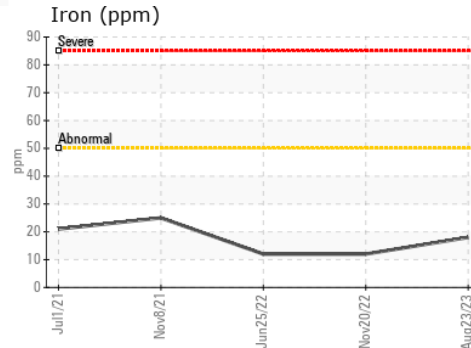
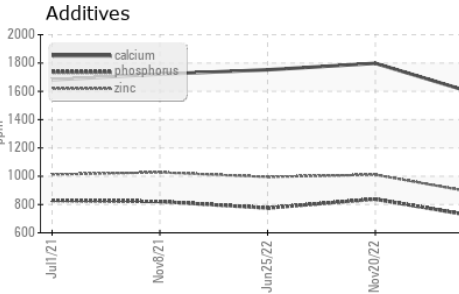
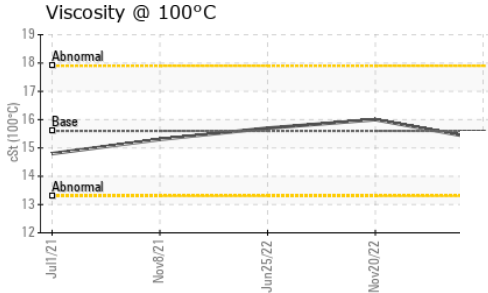
	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG
Free Water	scalar	Visual*	NEG	NEG	NEG



OIL ANALYSIS REPORT

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	15.3	16.0	15.7

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 554 - Edmonton SW
Sample No. : GFL0090601 **Received** : 05 Sep 2023
Lab Number : 02580286 **Diagnosed** : 05 Sep 2023
Unique Number : 5633346 **Diagnostician** : Kevin Marson
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.

8409 -15th Street NW
 Edmonton, AB
 CA T6P 0B8
 Contact: Antonio De Rosa
 atheros@gflev.com
 T: (780)509-2640
 F: (780)444-8851