



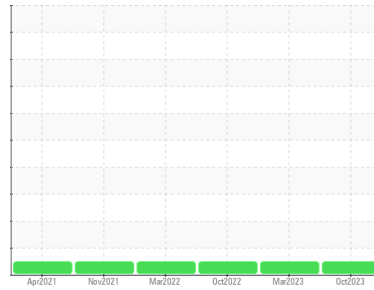
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
731020
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)



DIAGNOSIS

Recommendation

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

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		GFL0079592	GFL0041642	GFL0041657
Sample Date	Client Info		13 Oct 2023	01 Mar 2023	19 Oct 2022
Machine Age	kms	Client Info	64319	52063	4113
Oil Age	kms	Client Info	0	0	1200
Oil Changed	Client Info		N/A	N/A	Changed
Sample Status			NORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >50	10	8	11
Chromium	ppm	ASTM D5185(m) >4	<1	<1	<1
Nickel	ppm	ASTM D5185(m) >2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	0	0	<1
Silver	ppm	ASTM D5185(m) >3	<1	0	0
Aluminum	ppm	ASTM D5185(m) >9	2	2	2
Lead	ppm	ASTM D5185(m) >30	5	<1	2
Copper	ppm	ASTM D5185(m) >35	2	1	2
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) 0	8	7	6
Barium	ppm	ASTM D5185(m) 0	<1	0	0
Molybdenum	ppm	ASTM D5185(m) 60	54	50	54
Manganese	ppm	ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	571	525	587
Calcium	ppm	ASTM D5185(m) 1070	1600	1538	1622
Phosphorus	ppm	ASTM D5185(m) 1150	678	696	772
Zinc	ppm	ASTM D5185(m) 1270	935	885	939
Sulfur	ppm	ASTM D5185(m) 2060	1934	2032	2053
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >+100	3	3	4
Sodium	ppm	ASTM D5185(m)	3	2	3
Potassium	ppm	ASTM D5185(m) >20	<1	<1	0

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	7.2	12.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.4	25.5

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	11.2	20.9

VISUAL

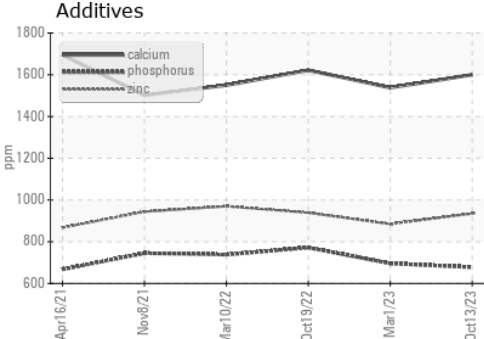
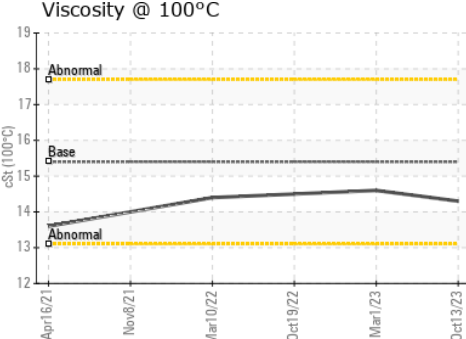
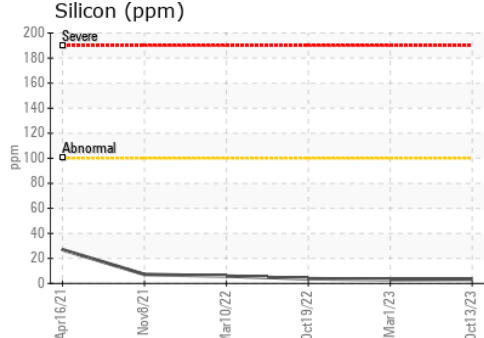
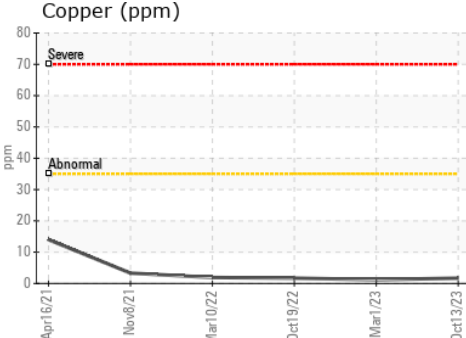
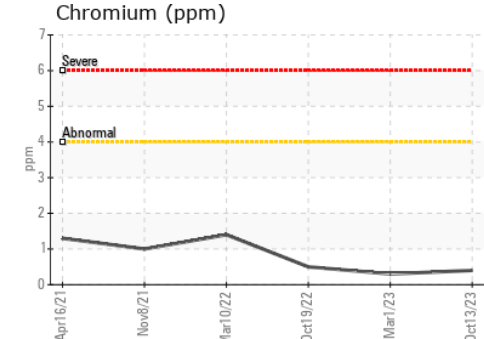
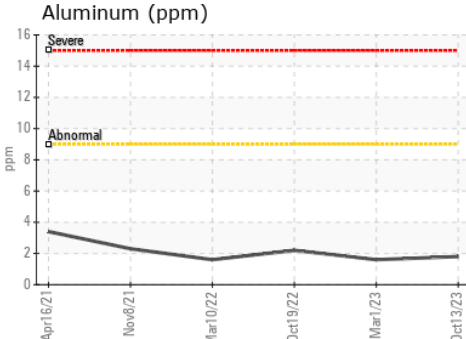
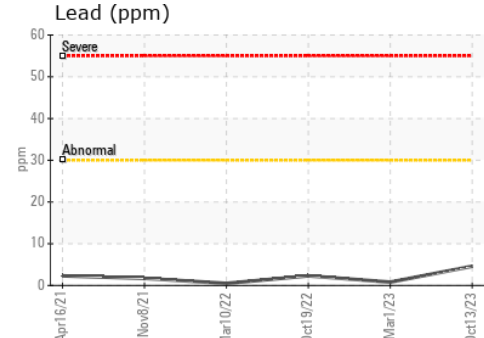
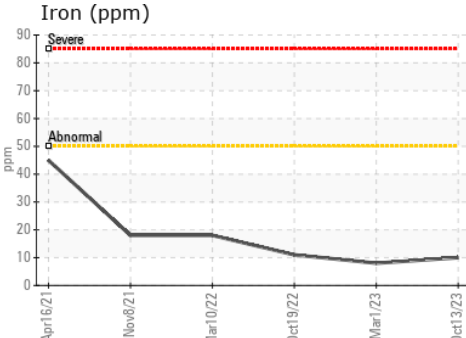
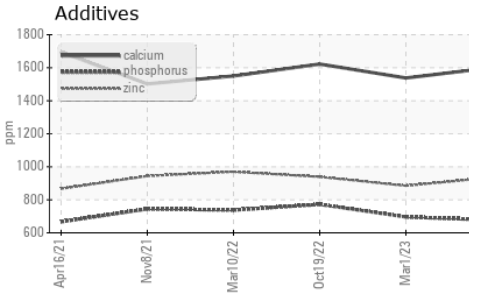
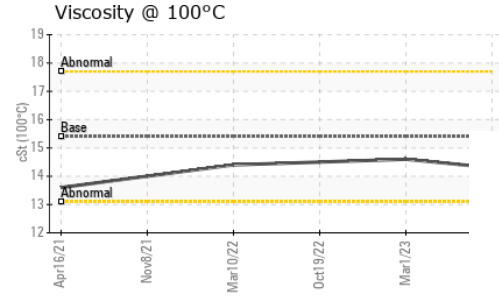
	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG
Free Water	scalar	Visual*	NEG	NEG	NEG



OIL ANALYSIS REPORT

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt ASTM D7279(m)	15.4	14.3	14.6	14.5

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 277 - Niagara Regional
Sample No. : GFL0079592 **Received** : 17 Oct 2023
Lab Number : 02589572 **Diagnosed** : 17 Oct 2023
Unique Number : 5658638 **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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