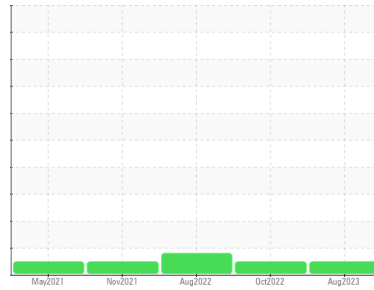




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
731013
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		GFL0079574	GFL0041655	GFL0041672
Sample Date	Client Info		24 Aug 2023	26 Oct 2022	08 Aug 2022
Machine Age	kms	Client Info	115875	3820	3405
Oil Age	kms	Client Info	0	0	0
Oil Changed	Client Info		N/A	Changed	Changed
Sample Status			NORMAL	NORMAL	ATTENTION

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>50	28	8	19
Chromium	ppm	ASTM D5185(m)	>4	2	<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)	>9	2	2	3
Lead	ppm	ASTM D5185(m)	>30	<1	<1	▲ 17
Copper	ppm	ASTM D5185(m)	>35	3	<1	3
Tin	ppm	ASTM D5185(m)	>4	<1	<1	2
Antimony	ppm	ASTM D5185(m)		0	0	<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	6	9	5
Barium	ppm	ASTM D5185(m)	0	2	0	0
Molybdenum	ppm	ASTM D5185(m)	60	59	51	61
Manganese	ppm	ASTM D5185(m)	0	3	<1	1
Magnesium	ppm	ASTM D5185(m)	1010	629	564	667
Calcium	ppm	ASTM D5185(m)	1070	1501	1568	1709
Phosphorus	ppm	ASTM D5185(m)	1150	729	767	809
Zinc	ppm	ASTM D5185(m)	1270	981	894	1029
Sulfur	ppm	ASTM D5185(m)	2060	2067	2001	2174
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>+100	14	4	5
Sodium	ppm	ASTM D5185(m)		16	2	6
Potassium	ppm	ASTM D5185(m)	>20	74	0	<1
Glycol	%	ASTM D7922*		0.0	---	---

INFRA-RED

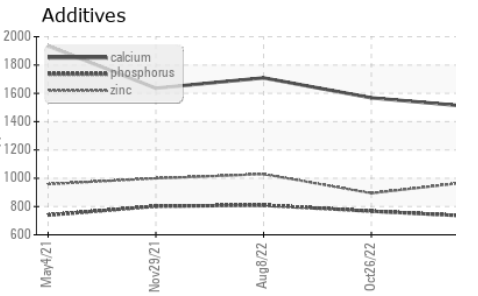
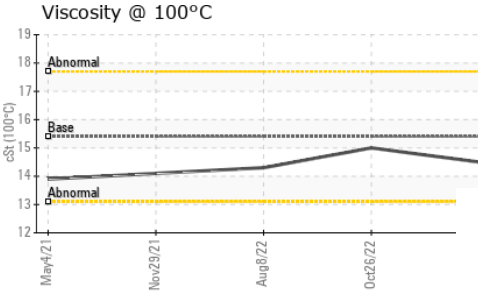
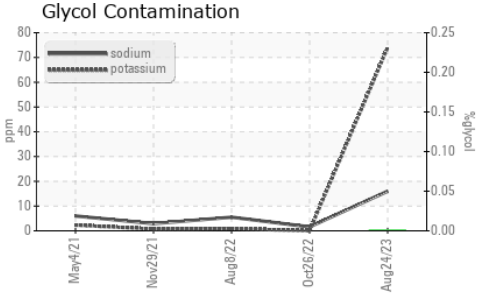
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	10.7	10.7	12.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	23.7	21.9	28.5

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.5	18.3	25.2



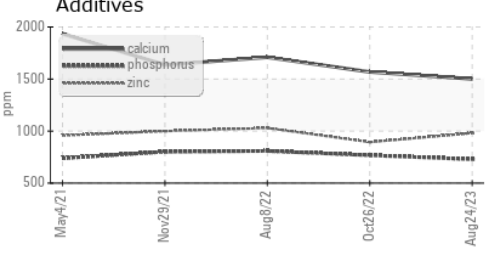
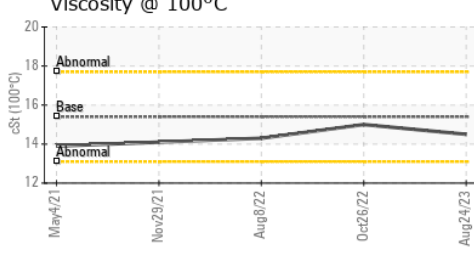
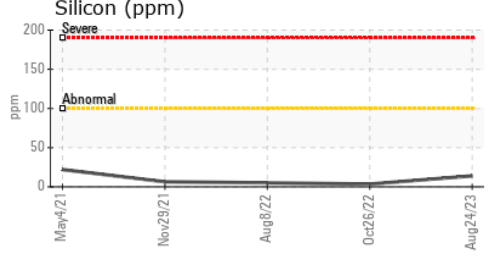
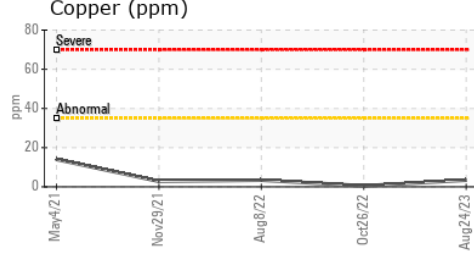
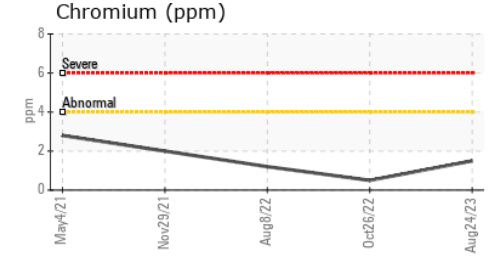
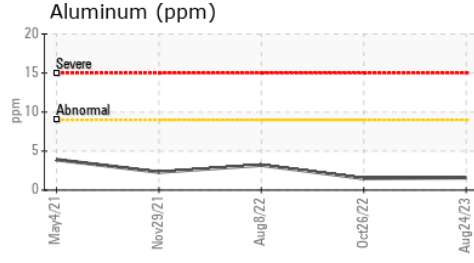
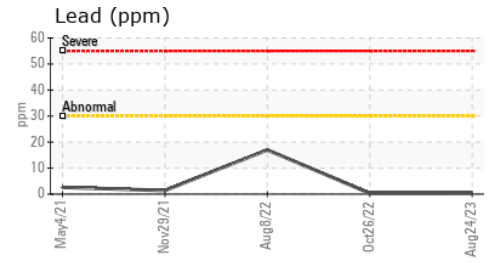
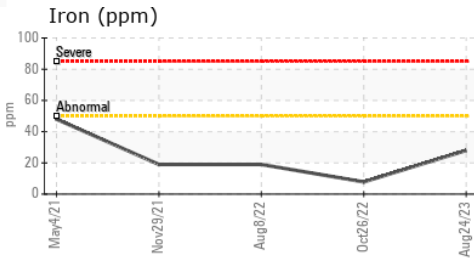
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	VLITE	---
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 @ 100°C	cSt	ASTM D7279(m)	15.4	14.5	15.0

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 277 - Niagara Regional
Sample No. : GFL0079574 **Received** : 30 Aug 2023
Lab Number : 02579279 **Diagnosed** : 31 Aug 2023
Unique Number : 5632339 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: Glycol, Visual)

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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