

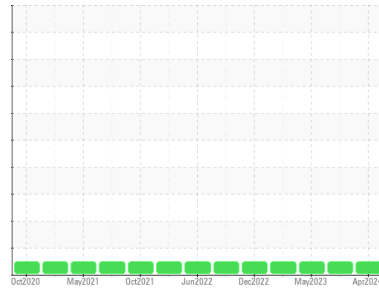


OIL ANALYSIS REPORT



Machine Id
429008
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

No corrective action is recommended at this time. 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

Light fuel dilution occurring. No other contaminants were detected 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		GFL0102916	GFL0053571	GFL0082544
Sample Date	Client Info		03 Apr 2024	27 Sep 2023	19 May 2023
Machine Age	hrs	Client Info	0	0	118345
Oil Age	hrs	Client Info	7873	7167	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >120	6	6	2
Chromium	ppm	ASTM D5185(m) >20	0	0	0
Nickel	ppm	ASTM D5185(m) >5	0	0	0
Titanium	ppm	ASTM D5185(m) >2	0	0	<1
Silver	ppm	ASTM D5185(m) >2	0	<1	<1
Aluminum	ppm	ASTM D5185(m) >20	1	1	1
Lead	ppm	ASTM D5185(m) >40	0	<1	0
Copper	ppm	ASTM D5185(m) >330	3	2	<1
Tin	ppm	ASTM D5185(m) >15	0	0	0
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	111	107	5
Barium	ppm	ASTM D5185(m) 0	0	<1	0
Molybdenum	ppm	ASTM D5185(m) 60	9	9	57
Manganese	ppm	ASTM D5185(m) 0	0	0	<1
Magnesium	ppm	ASTM D5185(m) 1010	92	127	920
Calcium	ppm	ASTM D5185(m) 1070	2039	1995	1079
Phosphorus	ppm	ASTM D5185(m) 1150	896	921	1058
Zinc	ppm	ASTM D5185(m) 1270	1073	1135	1145
Sulfur	ppm	ASTM D5185(m) 2060	2682	2727	2658
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	2	2	2
Sodium	ppm	ASTM D5185(m)	3	5	2
Potassium	ppm	ASTM D5185(m) >20	5	6	1
Fuel	%	ASTM D7593* >3.0	1.2	<1.0	<1.0
Glycol	%	ASTM D7922*	0.0	0.0	NEG

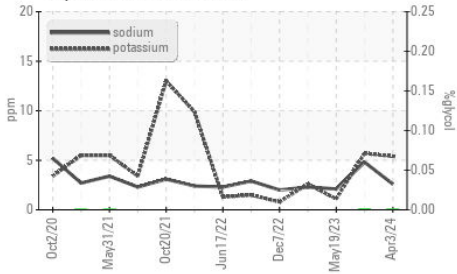
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >4	0.1	0.1	0
Nitration	Abs/cm	ASTM D7624* >20	8.5	7.7	5.0
Sulfation	Abs./1mm	ASTM D7415* >30	20.7	20.7	17.8



OIL ANALYSIS REPORT

Glycol Contamination



FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs./1mm ASTM D7414*	>25	16.1	13.5

VISUAL

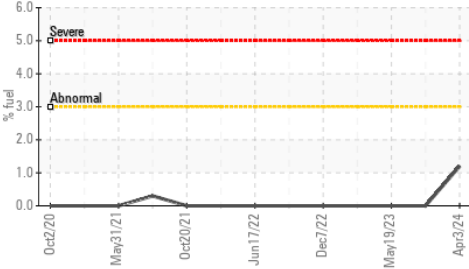
method	limit/base	current	history1	history2
Emulsified Water	scalar Visual*	>0.2	NEG	NEG
Free Water	scalar Visual*	NEG	NEG	NEG

FLUID PROPERTIES

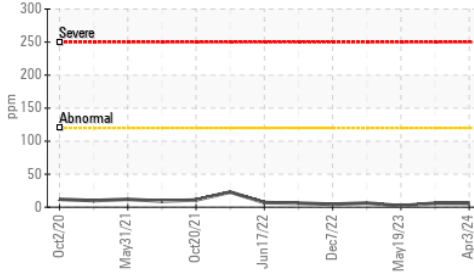
method	limit/base	current	history1	history2
Visc @ 100°C	cSt ASTM D7279(m)	15.4	13.0	14.2

GRAPHS

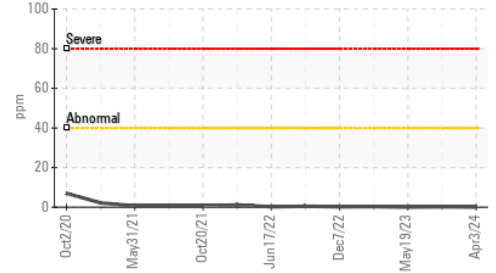
Fuel Dilution



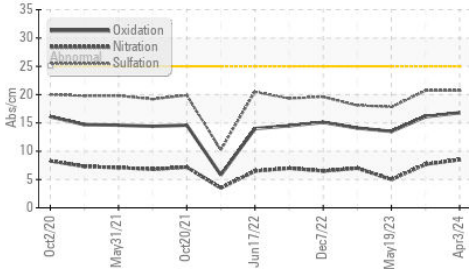
Iron (ppm)



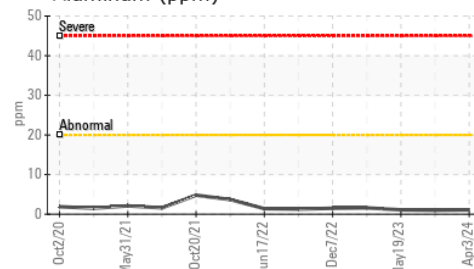
Lead (ppm)



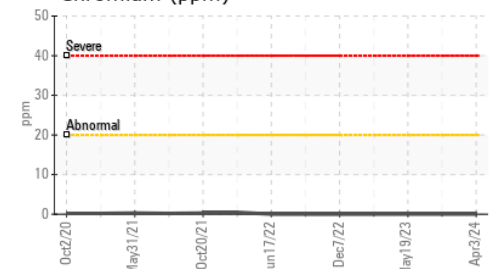
FT-IR (Direct Trend)



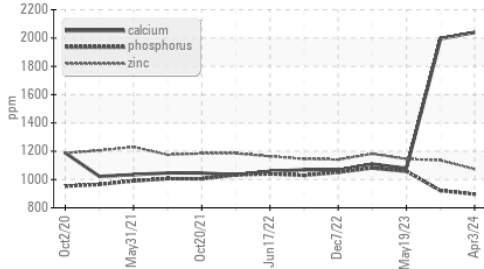
Aluminum (ppm)



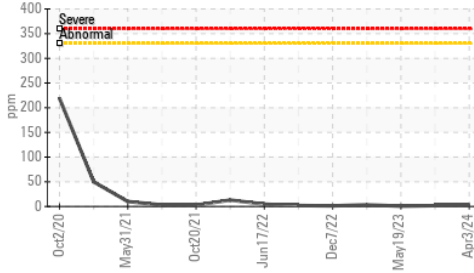
Chromium (ppm)



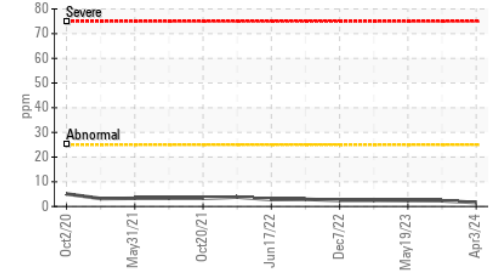
Additives



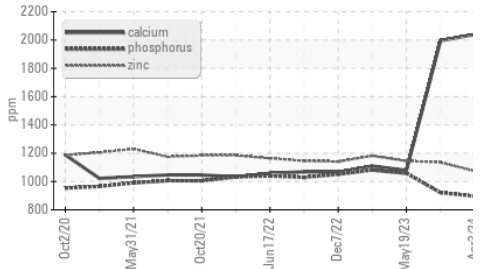
Copper (ppm)



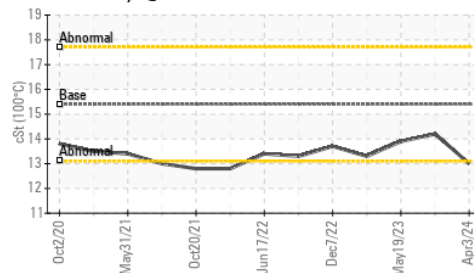
Silicon (ppm)



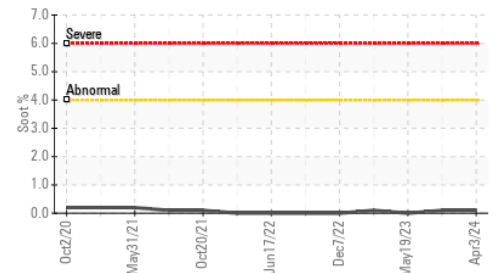
Additives



Viscosity @ 100°C



Soot %



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0102916
Lab Number : 02626527
Unique Number : 5759659
Test Package : MOB 1 (Additional Tests : FuelDilution, Glycol, PercentFuel)

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 CA N8W 5H8
 Contact: Dave Varga
 dvarga@gflenv.com
 T: (519)944-8009
 F:

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.