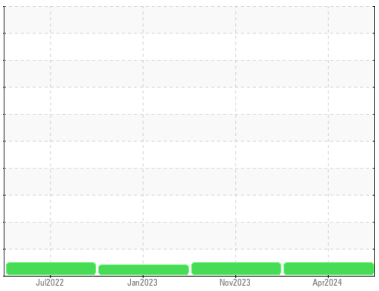
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
828002
Component
Diesel Engine
Fluid
PETRO CANADA DURON SAE 15W40 (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Fluid Condition
The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0088355**	GFL0088358	GFL0056360
Sample Date		Client Info		**24 Apr 2024**	06 Nov 2023	04 Jan 2023
Machine Age	hrs	Client Info		**5722**	5147	87248
Oil Age	hrs	Client Info		**500**	600	0
Oil Changed		Client Info		**Changed**	Changed	N/A
Sample Status				**NORMAL**	NORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>2.0	**<1.0**	<1.0	1.5
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	**29**	21	35
Chromium	ppm	ASTM D5185(m)	>20	**<1**	<1	1
Nickel	ppm	ASTM D5185(m)	>4	**0**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	<1
Silver	ppm	ASTM D5185(m)	>3	**0**	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	**8**	6	8
Lead	ppm	ASTM D5185(m)	>40	**0**	0	<1
Copper	ppm	ASTM D5185(m)	>330	**2**	2	2
Tin	ppm	ASTM D5185(m)	>15	**0**	0	<1
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

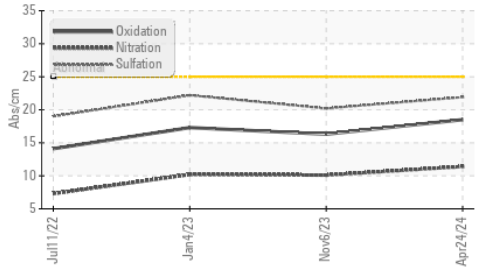
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	1	**3**	11	18
Barium	ppm	ASTM D5185(m)	1	**0**	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	**63**	63	65
Manganese	ppm	ASTM D5185(m)	1	**<1**	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	**1002**	928	848
Calcium	ppm	ASTM D5185(m)	1070	**1129**	1083	1250
Phosphorus	ppm	ASTM D5185(m)	1150	**1012**	940	961
Zinc	ppm	ASTM D5185(m)	1270	**1240**	1170	1104
Sulfur	ppm	ASTM D5185(m)	2060	**2457**	2459	2620
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**8**	5	8
Sodium	ppm	ASTM D5185(m)		**3**	5	7
Potassium	ppm	ASTM D5185(m)	>20	**9**	6	8

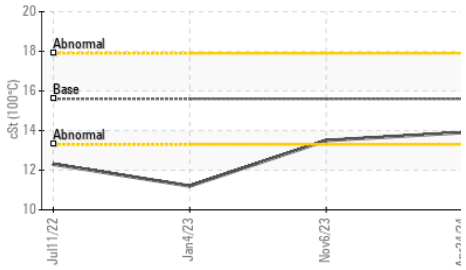
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0.7**	0.5	0.5
Nitration	Abs/cm	ASTM D7624*	>20	**11.4**	10.1	10.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	**21.9**	20.2	22.2

OIL ANALYSIS REPORT

FT-IR (Direct Trend)



Viscosity @ 100°C



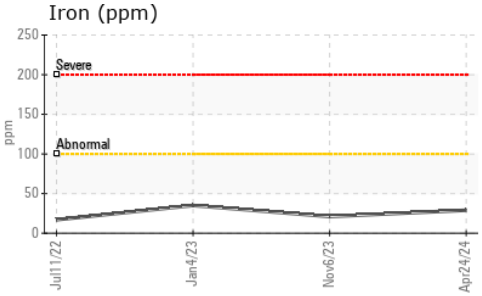
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**18.5**	16.3	17.3

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

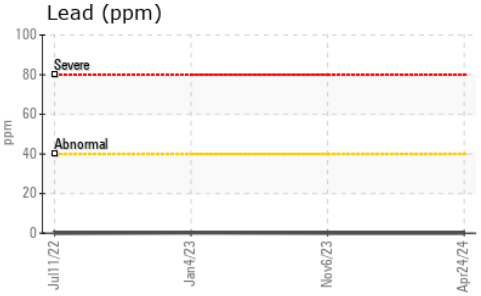
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	**13.9**	13.5	▲ 11.2

GRAPHS

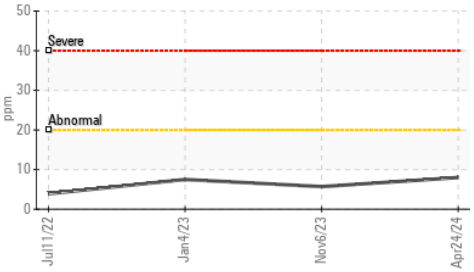
Iron (ppm)



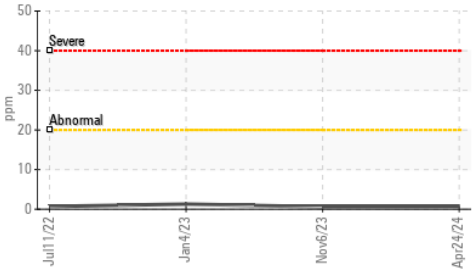
Lead (ppm)



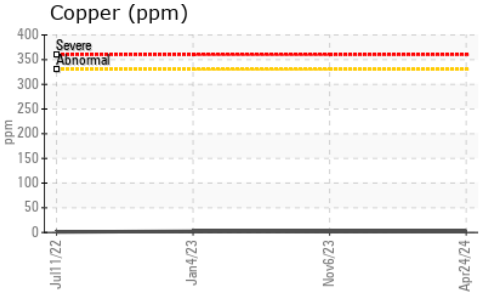
Aluminum (ppm)



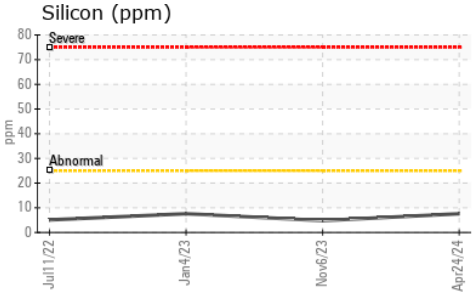
Chromium (ppm)



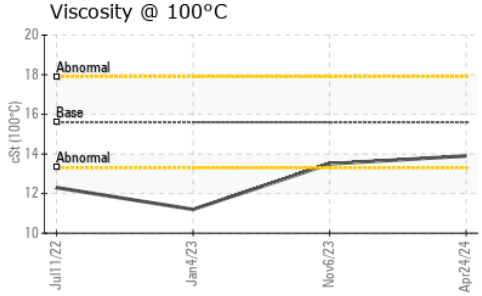
Copper (ppm)



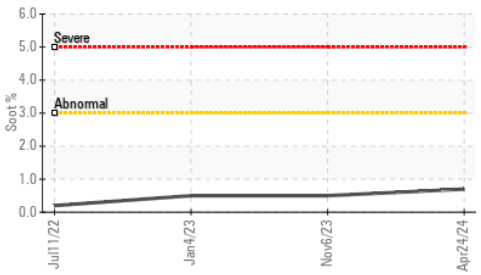
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0088355
Lab Number : 02631273
Unique Number : 5772426
Test Package : MOB 1

Received : 25 Apr 2024
Tested : 25 Apr 2024
Diagnosed : 25 Apr 2024 - Wes Davis

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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