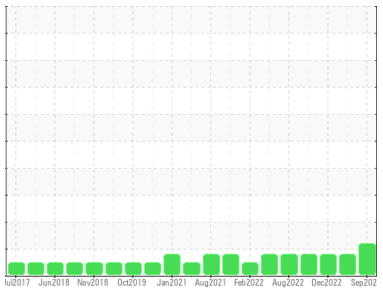
OIL ANALYSIS REPORT

Sample Rating Trend



FUEL

Machine Id
8422
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0085687**	GFL0059842	GFL0059856
Sample Date		Client Info		**19 Sep 2023**	22 Mar 2023	27 Dec 2022
Machine Age	hrs	Client Info		**0**	535	0
Oil Age	hrs	Client Info		**0**	535	556
Oil Changed		Client Info		**N/A**	Changed	Changed
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

CONTAMINATION	method	limit/base	current	history1	history2
Glycol	WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>80	**17**	18	15
Chromium	ppm	ASTM D5185(m)	>5	**<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)	>30	**<1**	1	<1
Lead	ppm	ASTM D5185(m)	>30	**0**	<1	0
Copper	ppm	ASTM D5185(m)	>150	**1**	<1	<1
Tin	ppm	ASTM D5185(m)	>5	**0**	0	<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	**2**	2	2
Barium	ppm	ASTM D5185(m)	0	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	60	**54**	56	54
Manganese	ppm	ASTM D5185(m)	0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	**873**	895	884
Calcium	ppm	ASTM D5185(m)	1070	**943**	1034	1037
Phosphorus	ppm	ASTM D5185(m)	1150	**942**	1014	981
Zinc	ppm	ASTM D5185(m)	1270	**1069**	1102	1110
Sulfur	ppm	ASTM D5185(m)	2060	**2220**	2345	2337
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	**3**	4	4
Sodium	ppm	ASTM D5185(m)		**2**	3	8
Potassium	ppm	ASTM D5185(m)	>20	**0**	0	<1
Fuel	%	ASTM D7593*	>5	▲ **7.1**	▲ 5	▲ 5.7

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0.2**	0.1	0.1
Nitration	Abs/cm	ASTM D7624*	>20	**11.7**	11.1	10.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	**22.7**	23.7	21.9

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**22.2**	22.3	20.6

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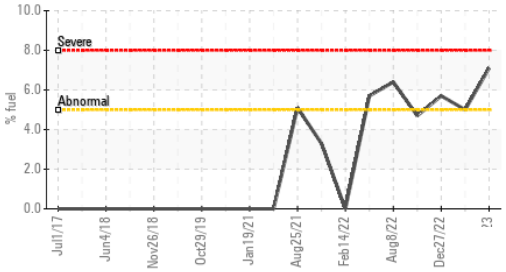
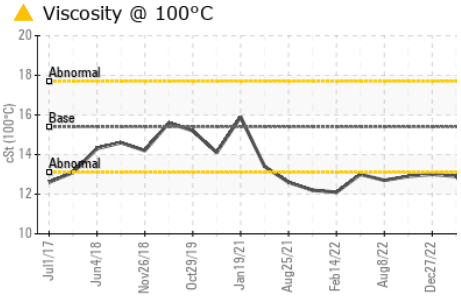
Fuel Dilution



Viscosity @ 100°C

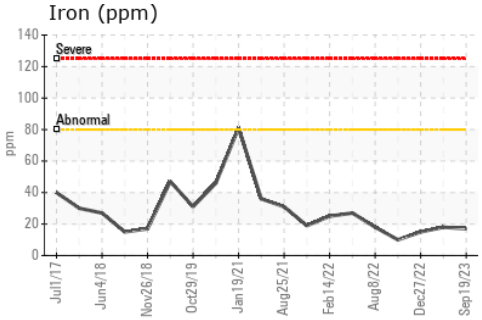


VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

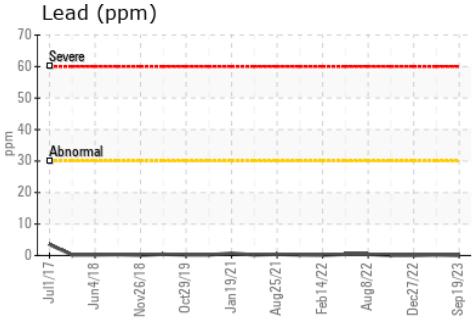
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ **11.9**	12.9	13.0

GRAPHS

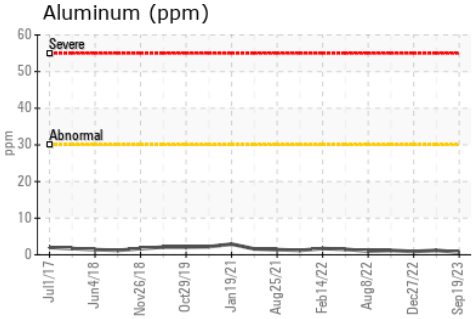
Iron (ppm)



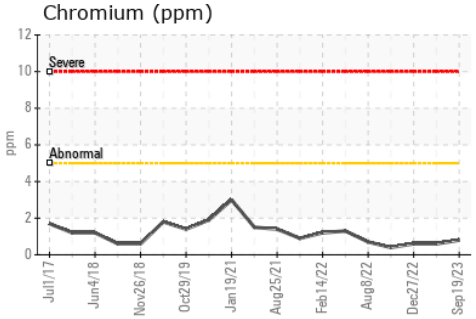
Lead (ppm)



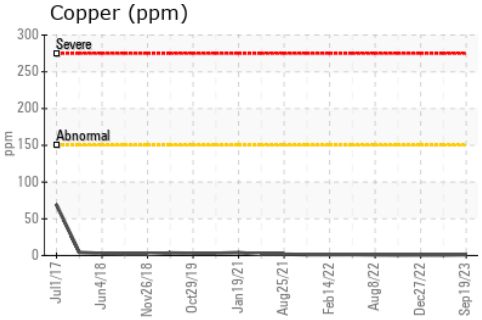
Aluminum (ppm)



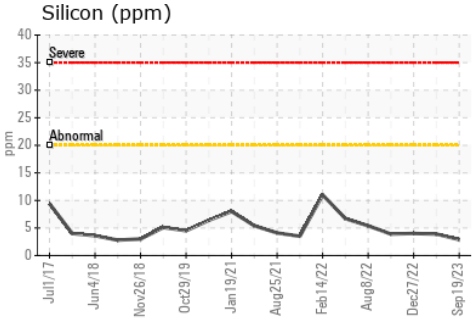
Chromium (ppm)



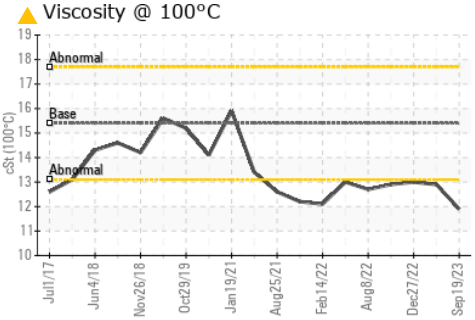
Copper (ppm)



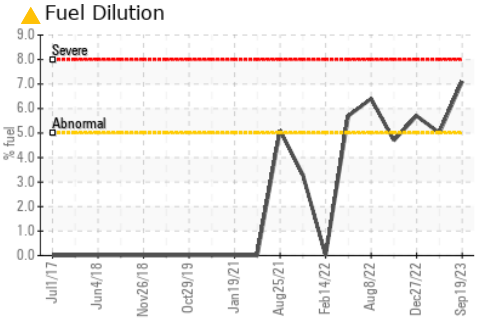
Silicon (ppm)



Viscosity @ 100°C



Fuel Dilution



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0085687
Lab Number : 02584333
Unique Number : 5645398
Test Package : MOB 1 (Additional Tests: PercentFuel)

Received : 21 Sep 2023
Diagnosed : 22 Sep 2023
Diagnostician : 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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Report Id: GFL221 [WCAMIS] 02584333 (Generated: 09/22/2023 09:55:47) Rev: 1

Submitted By: Rhys Marotte