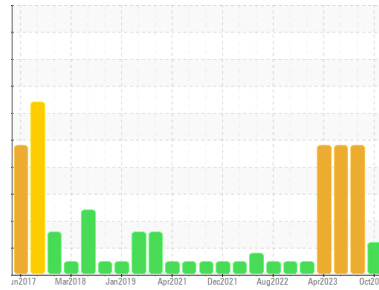




OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id
4791

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Check for low coolant level. 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

Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service (see recommendation).

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0097602	GFL0072807	GFL0077990
Sample Date	Client Info		30 Oct 2023	04 Jun 2023	09 May 2023
Machine Age	hrs	Client Info	16054	0	504889
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	Changed
Sample Status			ATTENTION	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	<1.0

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>110	23	15	29
Chromium	ppm	ASTM D5185(m)	>4	1	<1	1
Nickel	ppm	ASTM D5185(m)	>2	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>2	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>25	4	2	4
Lead	ppm	ASTM D5185(m)	>45	5	2	2
Copper	ppm	ASTM D5185(m)	>85	4	2	4
Tin	ppm	ASTM D5185(m)	>4	<1	0	<1
Antimony	ppm	ASTM D5185(m)		0	0	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)	2	3	1	2
Barium	ppm	ASTM D5185(m)	0	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	50	109	71	69
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	967	958	931
Calcium	ppm	ASTM D5185(m)	1050	1074	1068	1068
Phosphorus	ppm	ASTM D5185(m)	995	994	1082	1038
Zinc	ppm	ASTM D5185(m)	1180	1217	1164	1160
Sulfur	ppm	ASTM D5185(m)	2600	2615	2635	2532
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>30	10	10	11
Sodium	ppm	ASTM D5185(m)		▲ 1151	▲ 270	▲ 257
Potassium	ppm	ASTM D5185(m)	>20	17	▲ 129	▲ 126
Glycol	%	ASTM D7922*		0.0	▲ 0.024	▲ 0.029

INFRA-RED

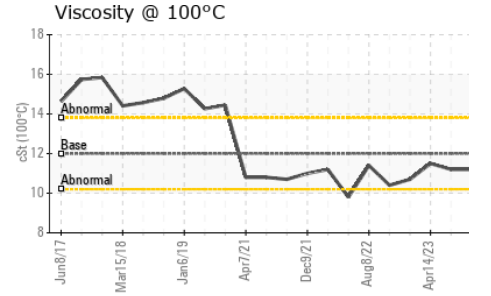
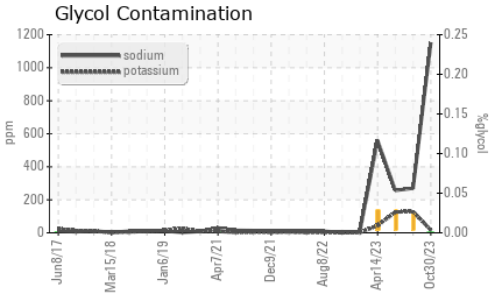
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.6	0.1	0.6
Nitration	Abs/cm	ASTM D7624*	>20	11.2	7.4	10.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.8	19.0	21.6

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.6	15.1	18.2



OIL ANALYSIS REPORT

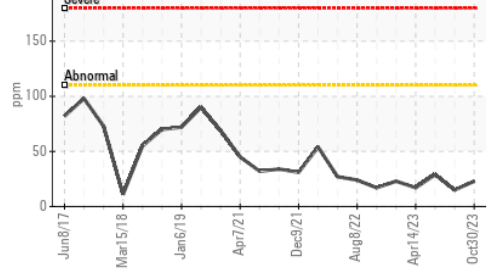


VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

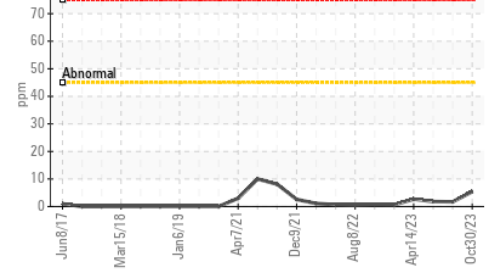
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	11.5	11.2

GRAPHS

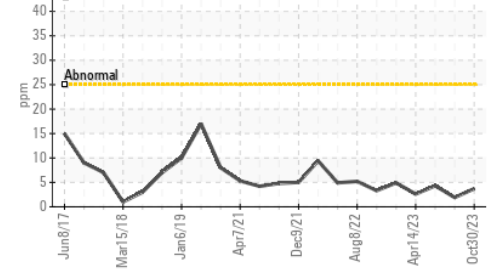
Iron (ppm)



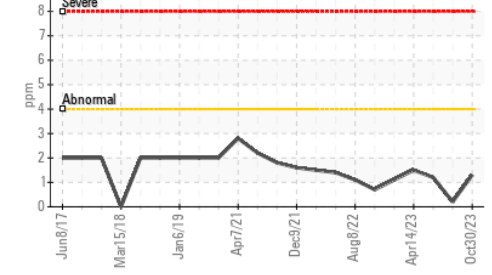
Lead (ppm)



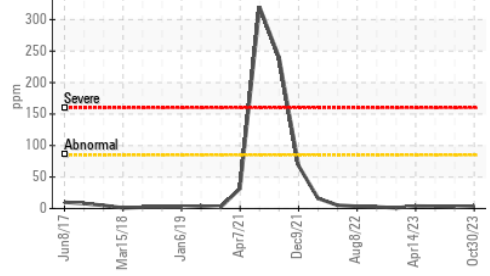
Aluminum (ppm)



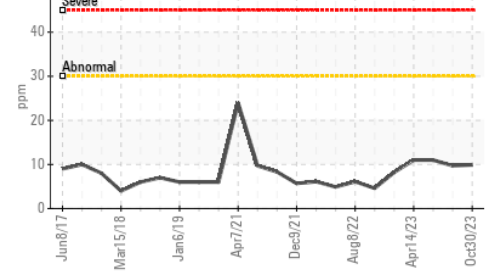
Chromium (ppm)



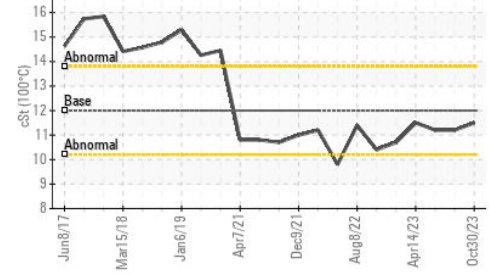
Copper (ppm)



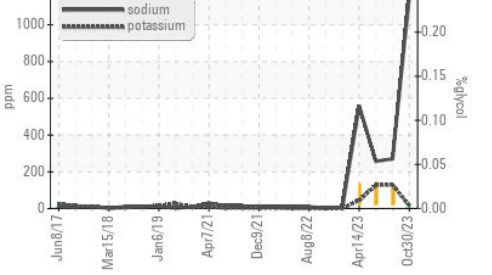
Silicon (ppm)



Viscosity @ 100°C



Glycol Contamination



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 554 - Edmonton SW**
Sample No. : GFL0097602 **Received** : 03 Nov 2023
Lab Number : 02593825 **Diagnosed** : 03 Nov 2023
Unique Number : 5670904 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: Glycol)
 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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