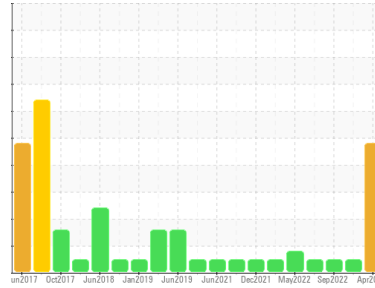




OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id
4791

Component
Diesel Engine

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

DIAGNOSIS

Recommendation

We advise that you check for the source of the coolant leak. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Test for glycol is positive. There is a light concentration of glycol present in the oil.

Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0085968	GFL0064095	GFL0059985
Sample Date	Client Info	14 Apr 2023	16 Feb 2023	19 Sep 2022
Machine Age	kms	Client Info	153155	0
Oil Age	kms	Client Info	0	14562
Oil Changed	Client Info	N/A	N/A	Changed
Sample Status		ABNORMAL	NORMAL	NORMAL

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	17	23	17
Chromium	ppm	ASTM D5185(m)	>4	2	1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	<1	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	3	5	3
Lead	ppm	ASTM D5185(m)	>45	3	<1	<1
Copper	ppm	ASTM D5185(m)	>85	4	1	2
Tin	ppm	ASTM D5185(m)	>4	0	<1	<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	2	2	2
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	80	55	54
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	941	903	877
Calcium	ppm	ASTM D5185(m)	1050	983	1000	990
Phosphorus	ppm	ASTM D5185(m)	995	1057	1003	971
Zinc	ppm	ASTM D5185(m)	1180	1128	1098	1084
Sulfur	ppm	ASTM D5185(m)	2600	2548	2424	2362
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	>30	11	8	5
Sodium	ppm	ASTM D5185(m)		▲ 559	7	2
Potassium	ppm	ASTM D5185(m)	>20	▲ 44	<1	0
Glycol	%	ASTM D7922*		▲ 0.028	NEG	NEG

INFRA-RED

method	limit/base	current	history1	history2		
Soot %	%	ASTM D7844*	>3	0.1	0.5	0.6
Nitration	Abs/cm	ASTM D7624*	>20	7.8	10.6	9.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.9	21.9	21.8

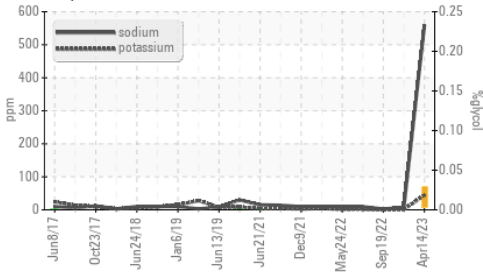
FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.8	18.5	19.6

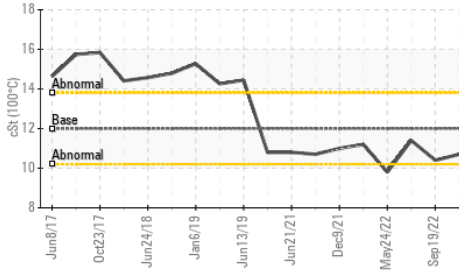


OIL ANALYSIS REPORT

▲ Glycol Contamination



Viscosity @ 100°C

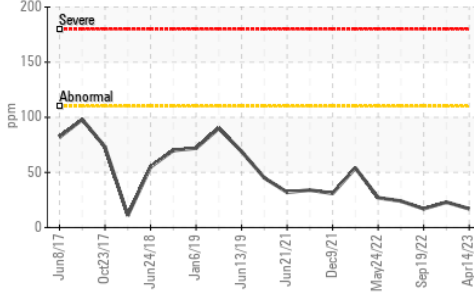


VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

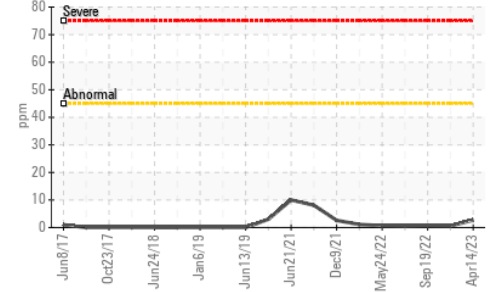
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	11.5	10.7

GRAPHS

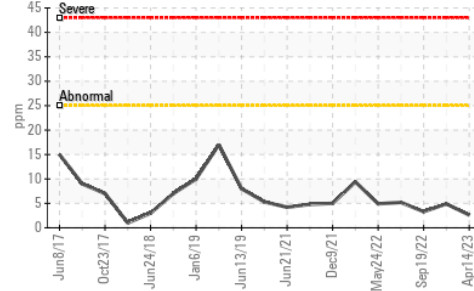
Iron (ppm)



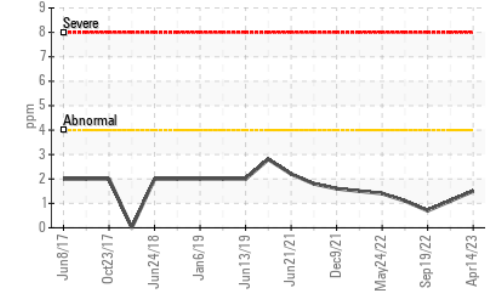
Lead (ppm)



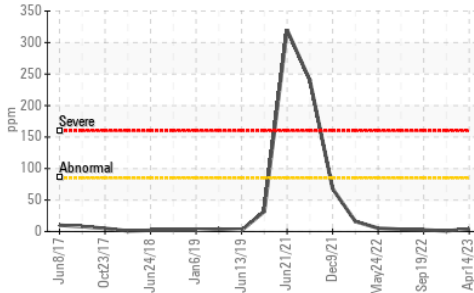
Aluminum (ppm)



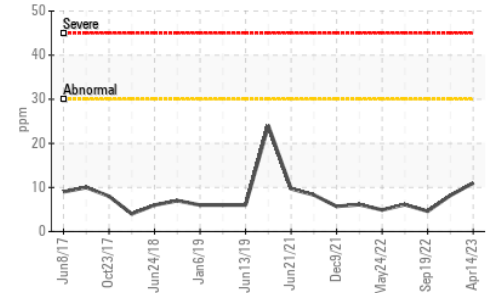
Chromium (ppm)



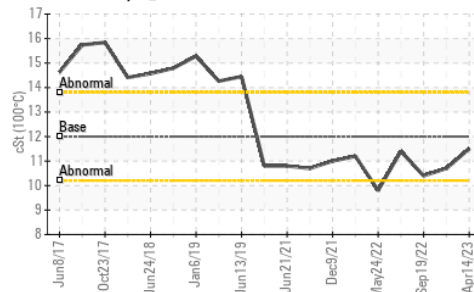
Copper (ppm)



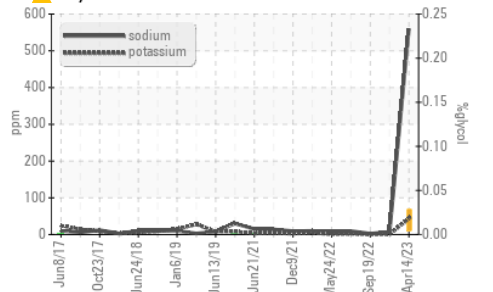
Silicon (ppm)



Viscosity @ 100°C



▲ Glycol Contamination



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 554 - Edmonton SW
Sample No. : GFL0085968 **Received** : 28 Jul 2023
Lab Number : 02572916 **Diagnosed** : 28 Jul 2023
Unique Number : 5617967 **Diagnostician** : Wes Davis
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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