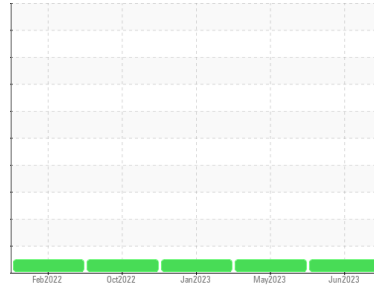




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
125051

Component
Diesel Engine

Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history 1	history 2	
Sample Number	Client Info	GFL0077601	GFL0077619	GFL0063787	
Sample Date	Client Info	28 Jun 2023	23 May 2023	04 Jan 2023	
Machine Age	hrs	Client Info	10851	422423	410902
Oil Age	hrs	Client Info	312	0	10953
Oil Changed	Client Info	Changed	Changed	Changed	
Sample Status		NORMAL	NORMAL	NORMAL	

CONTAMINATION

method	limit/base	current	history 1	history 2
Fuel	WC Method >5	<1.0	<1.0	<1.0
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history 1	history 2
Iron	ppm ASTM D5185(m) >100	19	13	19
Chromium	ppm ASTM D5185(m) >20	<1	<1	<1
Nickel	ppm ASTM D5185(m) >4	0	<1	<1
Titanium	ppm ASTM D5185(m)	0	<1	<1
Silver	ppm ASTM D5185(m) >3	0	0	1
Aluminum	ppm ASTM D5185(m) >20	2	2	3
Lead	ppm ASTM D5185(m) >40	0	0	<1
Copper	ppm ASTM D5185(m) >330	<1	<1	<1
Tin	ppm ASTM D5185(m) >15	0	<1	0
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	history 1	history 2
Boron	ppm ASTM D5185(m) 0	3	2	3
Barium	ppm ASTM D5185(m) 0	0	0	0
Molybdenum	ppm ASTM D5185(m) 60	59	57	57
Manganese	ppm ASTM D5185(m) 0	<1	<1	<1
Magnesium	ppm ASTM D5185(m) 1010	968	935	888
Calcium	ppm ASTM D5185(m) 1070	1073	1069	1096
Phosphorus	ppm ASTM D5185(m) 1150	1025	1033	1020
Zinc	ppm ASTM D5185(m) 1270	1187	1147	1166
Sulfur	ppm ASTM D5185(m) 2060	2407	2488	2407
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

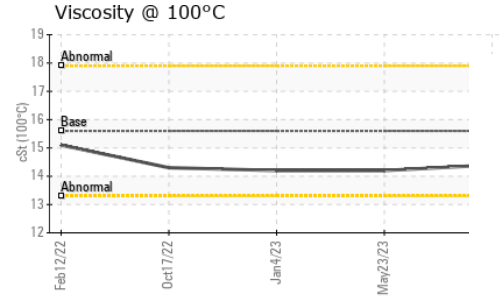
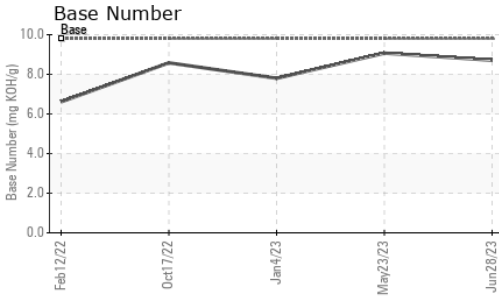
method	limit/base	current	history 1	history 2
Silicon	ppm ASTM D5185(m) >25	5	9	3
Sodium	ppm ASTM D5185(m)	4	4	4
Potassium	ppm ASTM D5185(m) >20	<1	0	0

INFRA-RED

method	limit/base	current	history 1	history 2
Soot %	% ASTM D7844* >3	0.2	0	0.1
Nitration	Abs/cm ASTM D7624* >20	6.7	5.9	7.2
Sulfation	Abs/.1mm ASTM D7415* >30	19.4	18.8	20.4



OIL ANALYSIS REPORT

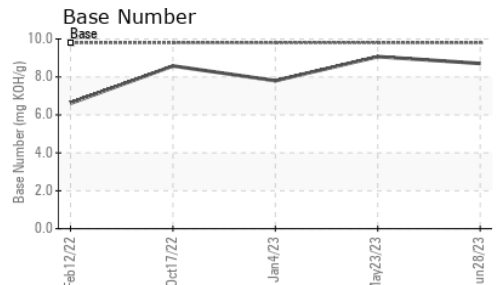
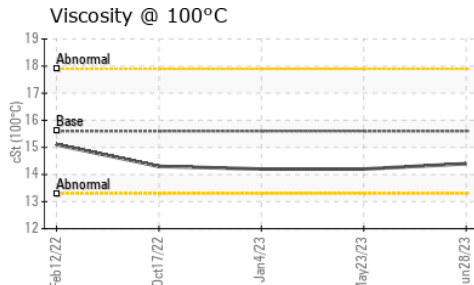
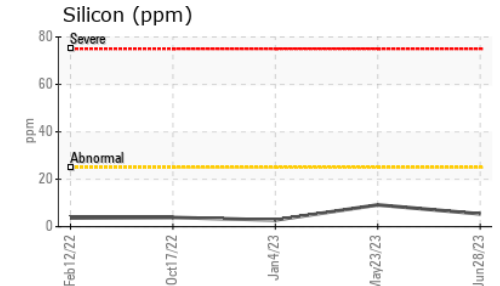
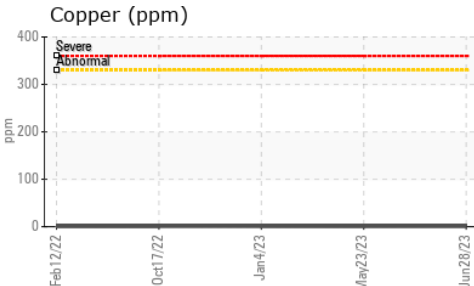
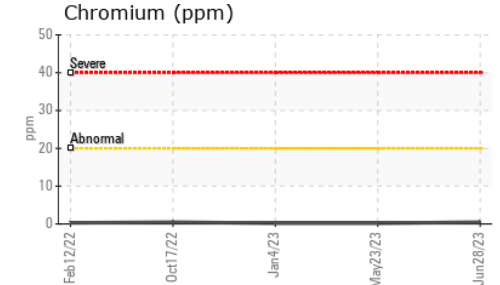
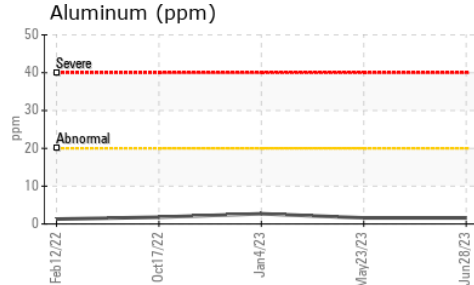
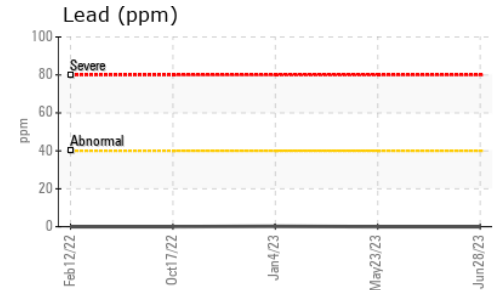
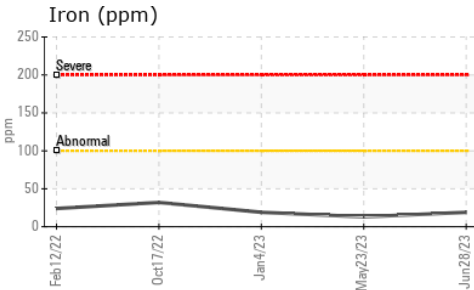


FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.2	14.6	15.1
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	8.71	9.07	7.80

VISUAL		method	limit/base	current	history 1	history 2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	14.4	14.2	14.2

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County
Sample No. : GFL0077601 **Received** : 06 Jul 2023
Lab Number : 02568178 **Diagnosed** : 07 Jul 2023
Unique Number : 5605224 **Diagnostician** : Wes Davis
Test Package : MOB 2

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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