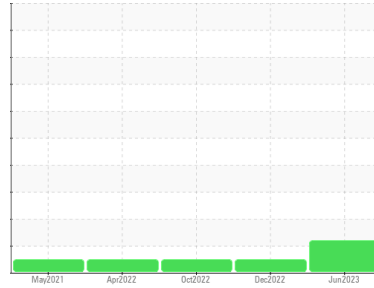




OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
401107

Component
Diesel Engine

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

DIAGNOSIS

▲ Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

▲ Contamination

Light fuel dilution occurring.

▲ Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0084041	GFL0063559	GFL0057484
Sample Date	Client Info	12 Jun 2023	15 Dec 2022	25 Oct 2022
Machine Age	hrs	20416	33372	32946
Oil Age	hrs	0	600	600
Oil Changed	Client Info	N/A	N/A	Changed
Sample Status		ABNORMAL	NORMAL	NORMAL

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) >100	42	23	64
Chromium	ppm	ASTM D5185(m) >20	4	1	3
Nickel	ppm	ASTM D5185(m) >4	0	0	<1
Titanium	ppm	ASTM D5185(m)	<1	<1	<1
Silver	ppm	ASTM D5185(m) >3	0	0	0
Aluminum	ppm	ASTM D5185(m) >20	4	1	3
Lead	ppm	ASTM D5185(m) >40	<1	2	12
Copper	ppm	ASTM D5185(m) >330	1	2	7
Tin	ppm	ASTM D5185(m) >15	0	<1	<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	5	2	4
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 60	62	59	64
Manganese	ppm	ASTM D5185(m) 0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	991	964	1008
Calcium	ppm	ASTM D5185(m) 1070	1075	1094	1141
Phosphorus	ppm	ASTM D5185(m) 1150	1100	1075	1078
Zinc	ppm	ASTM D5185(m) 1270	1209	1193	1251
Sulfur	ppm	ASTM D5185(m) 2060	2634	2577	2538
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >25	12	4	12
Sodium	ppm	ASTM D5185(m)	4	5	17
Potassium	ppm	ASTM D5185(m) >20	2	<1	3
Fuel	%	ASTM D7593* >5	▲ 2.5	<1.0	<1.0

INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844* >3	1.6	0.8	2.3
Nitration	Abs/cm	ASTM D7624* >20	9.5	8.4	11.6
Sulfation	Abs/.1mm	ASTM D7415* >30	21.7	21.9	27.4

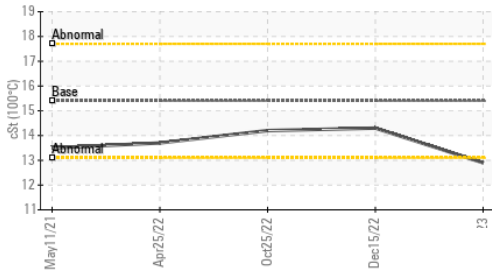
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414* >25	15.6	15.9	20.6

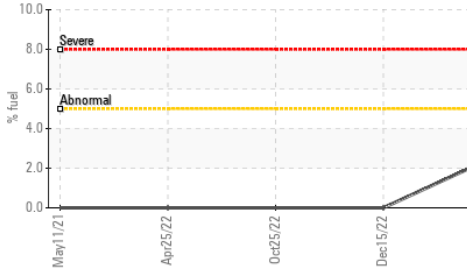


OIL ANALYSIS REPORT

▲ Viscosity @ 100°C



▲ Fuel Dilution

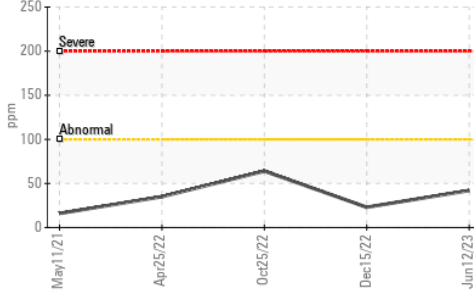


VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

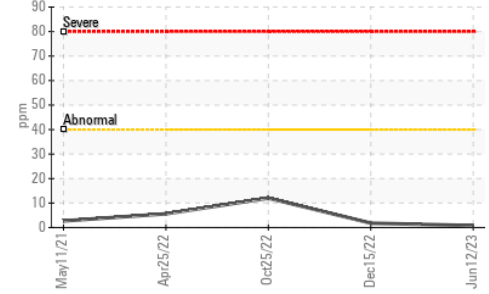
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4 ▲ 12.9	14.3	14.2

GRAPHS

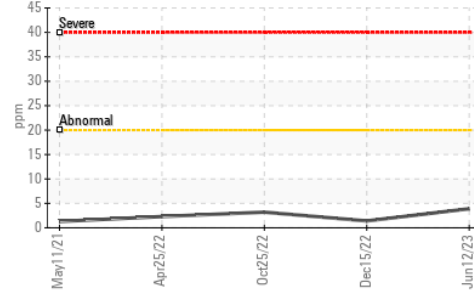
Iron (ppm)



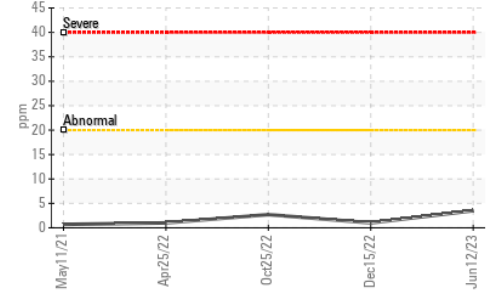
Lead (ppm)



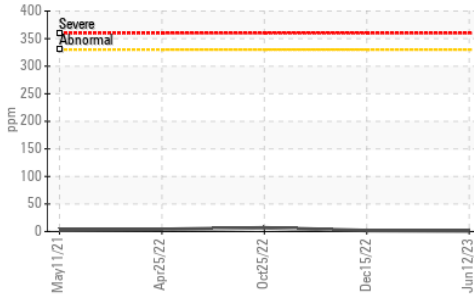
Aluminum (ppm)



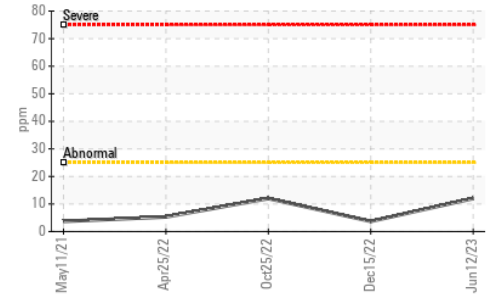
Chromium (ppm)



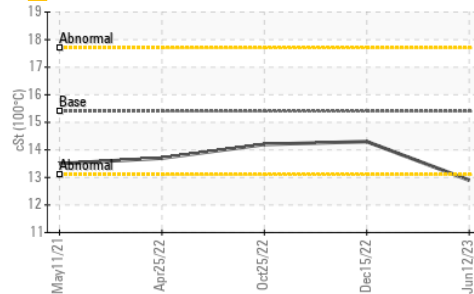
Copper (ppm)



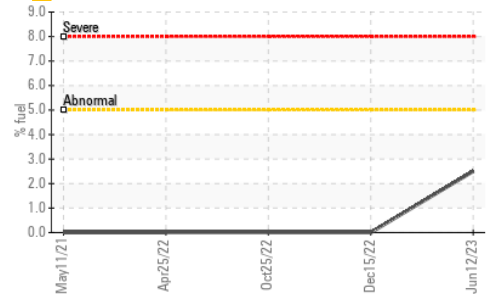
Silicon (ppm)



▲ Viscosity @ 100°C



▲ Fuel Dilution



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 574 - Vancouver Fleet
Sample No. : GFL0084041 **Received** : 14 Jul 2023
Lab Number : 02570029 **Diagnosed** : 17 Jul 2023
Unique Number : 5607075 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

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.

Contact: Allison Adams
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