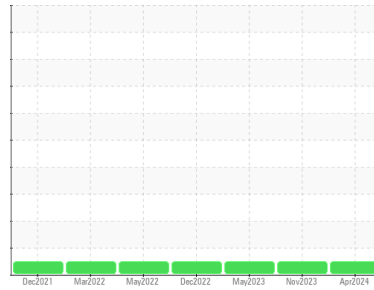




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
731110
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON GEO LD 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 condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2	
Sample Number	Client Info	GFL0117147	GFL0097766	GFL0081576	
Sample Date	Client Info	22 Apr 2024	01 Nov 2023	02 May 2023	
Machine Age	hrs	Client Info	5482	4433	3256
Oil Age	hrs	Client Info	1200	1200	1200
Oil Changed	Client Info	Changed	Changed	Changed	
Sample Status		NORMAL	NORMAL	NORMAL	

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.1	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >50	10	15	12
Chromium	ppm	ASTM D5185(m) >4	<1	1	<1
Nickel	ppm	ASTM D5185(m) >2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	<1	0	<1
Silver	ppm	ASTM D5185(m) >3	0	<1	0
Aluminum	ppm	ASTM D5185(m) >9	1	2	2
Lead	ppm	ASTM D5185(m) >30	2	12	<1
Copper	ppm	ASTM D5185(m) >35	2	2	2
Tin	ppm	ASTM D5185(m) >4	<1	<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) 50	9	9	16
Barium	ppm	ASTM D5185(m) 5	0	<1	0
Molybdenum	ppm	ASTM D5185(m) 50	55	80	60
Manganese	ppm	ASTM D5185(m) 0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m) 560	588	570	614
Calcium	ppm	ASTM D5185(m) 1510	1624	1852	1559
Phosphorus	ppm	ASTM D5185(m) 780	675	785	782
Zinc	ppm	ASTM D5185(m) 870	935	1009	931
Sulfur	ppm	ASTM D5185(m) 2040	1996	2318	2126
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >+100	2	4	4
Sodium	ppm	ASTM D5185(m)	7	9	7
Potassium	ppm	ASTM D5185(m) >20	<1	0	0

INFRA-RED

method	limit/base	current	history1	history2		
Soot %	%	ASTM D7844*	0	0	0	
Nitration	Abs/cm	ASTM D7624*	>20	11.7	11.3	10.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	23.9	26.0	20.4

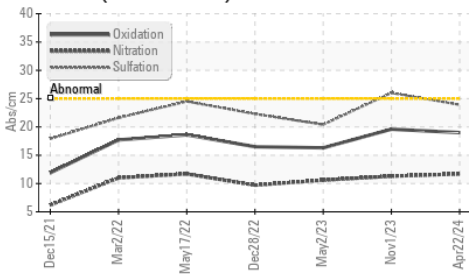
FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.0	19.6	16.3

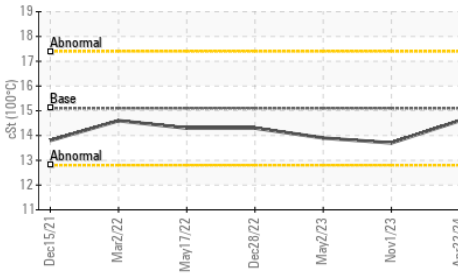


OIL ANALYSIS REPORT

FT-IR (Direct Trend)



Viscosity @ 100°C

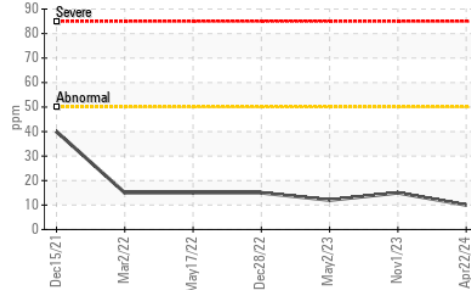


VISUAL	method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

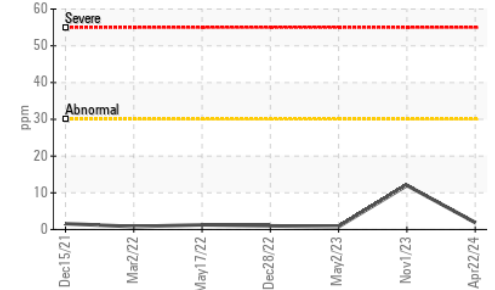
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	14.6	13.7

GRAPHS

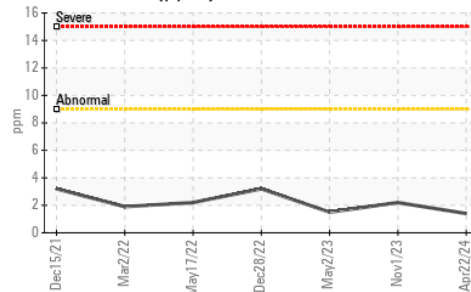
Iron (ppm)



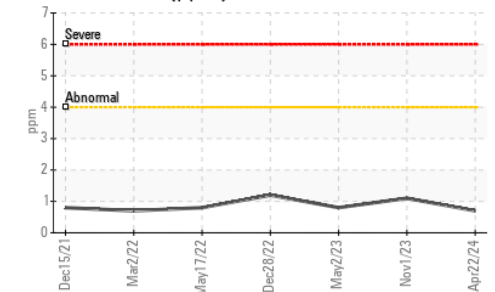
Lead (ppm)



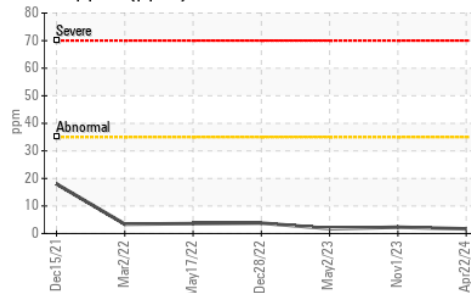
Aluminum (ppm)



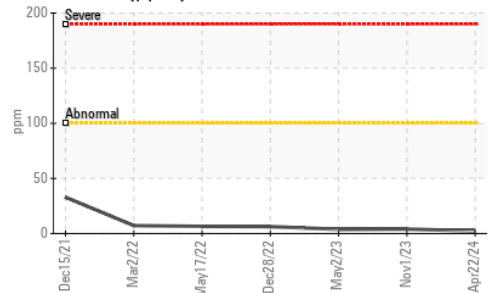
Chromium (ppm)



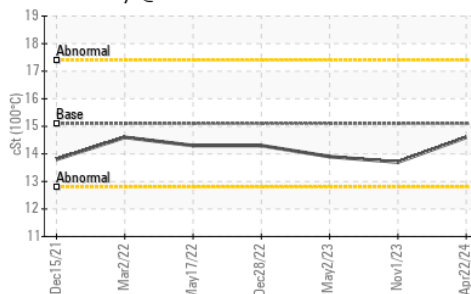
Copper (ppm)



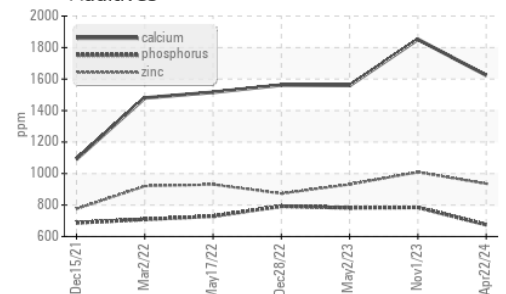
Silicon (ppm)



Viscosity @ 100°C



Additives



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117147
Lab Number : 02631086
Unique Number : 5772239
Test Package : MOB 1
Received : 24 Apr 2024
Tested : 24 Apr 2024
Diagnosed : 24 Apr 2024 - Wes Davis

GFL Environmental - 209 - Hamilton
 560 Seaman Street
 Stoney Creek, ON
 CA L8E 3X7
 Contact: Fred Carleton
 fred.carleton@gflenv.com
 T: (289)925-6693
 F: (905)664-9008

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.