



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
9131
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)

RECOMMENDATION

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0102669	GFL0093915	GFL0085930
Sample Date		Client Info		05 Mar 2024	21 Sep 2023	07 Jul 2023
Machine Age	kms	Client Info		0	0	734012
Oil Age	kms	Client Info		0	0	0
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

Chromium ppm levels are abnormal. Ring wear is indicated.

Iron	ppm	ASTM D5185(m)	>110	61	51	48
Chromium	ppm	ASTM D5185(m)	>4	▲ 4	2	2
Nickel	ppm	ASTM D5185(m)	>2	1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	8	8	15
Lead	ppm	ASTM D5185(m)	>45	<1	<1	1
Copper	ppm	ASTM D5185(m)	>85	3	5	10
Tin	ppm	ASTM D5185(m)	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

There is no indication of any contamination in the oil.

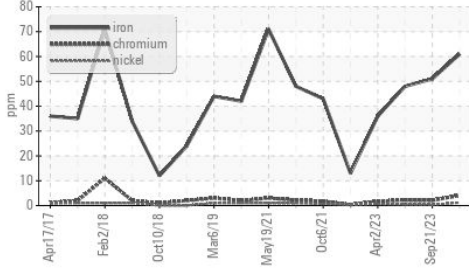
Silicon	ppm	ASTM D5185(m)	>30	16	9	10
Potassium	ppm	ASTM D5185(m)	>20	3	0	9
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	0.0
Soot %	%	ASTM D7844*	>3	1.8	1.1	1.2
Nitration	Abs/cm	ASTM D7624*	>20	11.8	11.9	11.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	24.4	25.4	23.6
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

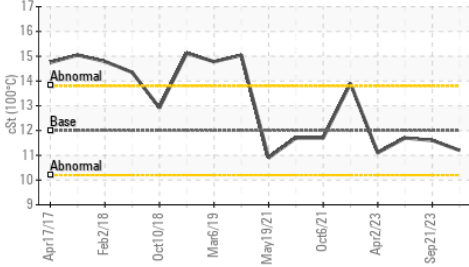
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		10	9	8
Boron	ppm	ASTM D5185(m)	2	2	1	3
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	58	58	58
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	930	961	925
Calcium	ppm	ASTM D5185(m)	1050	1036	1046	971
Phosphorus	ppm	ASTM D5185(m)	995	950	975	953
Zinc	ppm	ASTM D5185(m)	1180	1124	1171	1107
Sulfur	ppm	ASTM D5185(m)	2600	2448	2343	2194
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.9	23.6	20.3
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	11.2	11.6	11.7

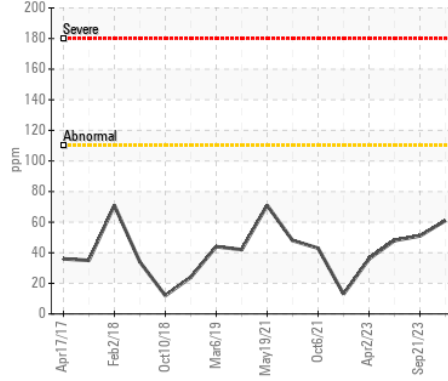
▲ Ferrous Alloys



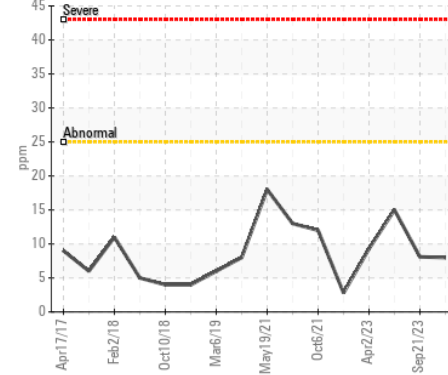
Viscosity @ 100°C



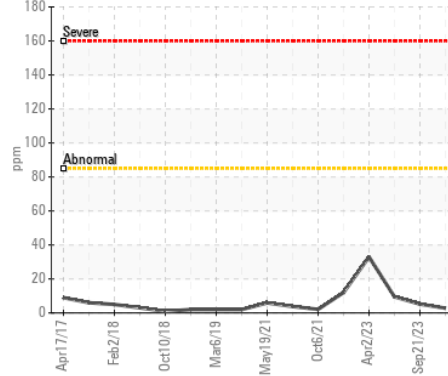
Iron (ppm)



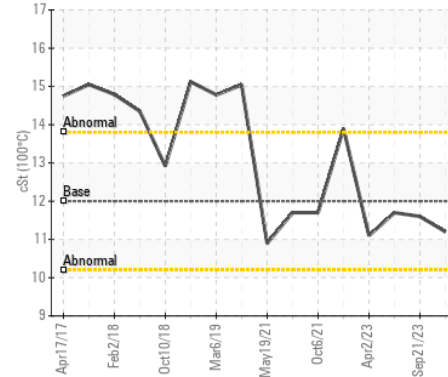
Aluminum (ppm)



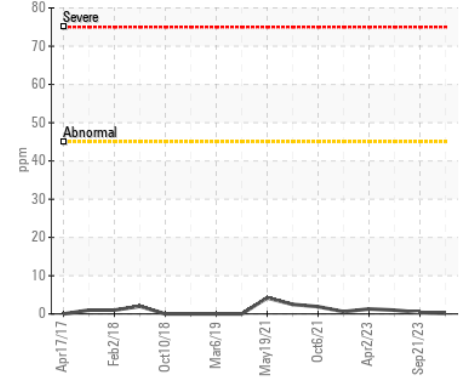
Copper (ppm)



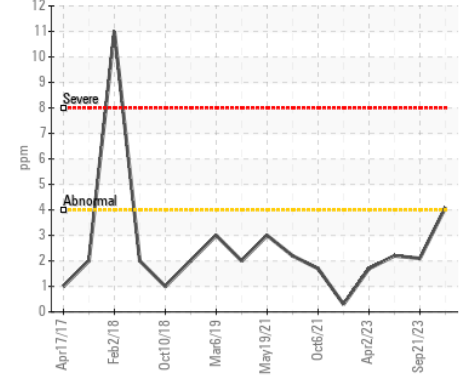
Viscosity @ 100°C



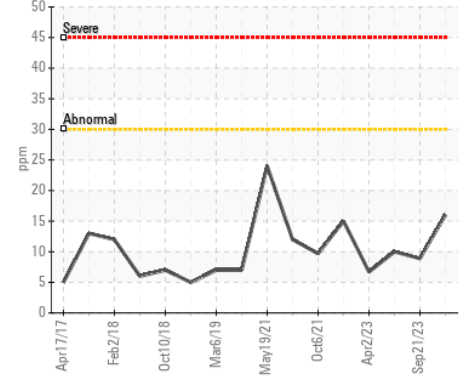
Lead (ppm)



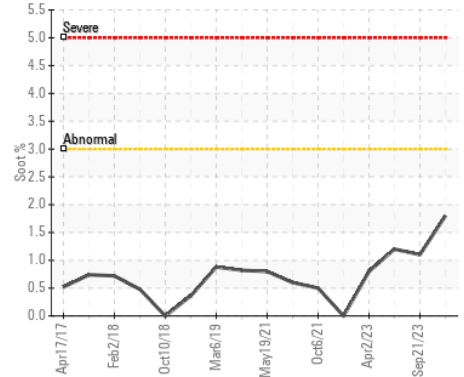
▲ Chromium (ppm)



Silicon (ppm)



Soot %



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0102669
Lab Number : 02620083
Unique Number : 5737193
Test Package : MOB 1

GFL Environmental - 554 - Edmonton SW
 8409 -15th Street NW
 Edmonton, AB
 CA T6P 0B8
 Contact: Tim Greig
 tgreig@gflenv.com
 T: (780)231-0521
 F:

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.