



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
216005
 Component
Diesel Engine
 Fluid
PETRO CANADA 10W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0090750	GFL0069690	GFL0069694
Sample Date		Client Info		21 Feb 2024	05 Jun 2023	04 Jan 2023
Machine Age	hrs	Client Info		5852	5500	4764
Oil Age	hrs	Client Info		600	600	600
Filter Age	hrs	Client Info		600	600	600
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>110	22	13	23
Chromium	ppm	ASTM D5185(m)	>4	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>25	2	2	3
Lead	ppm	ASTM D5185(m)	>45	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>85	2	1	3
Tin	ppm	ASTM D5185(m)	>4	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

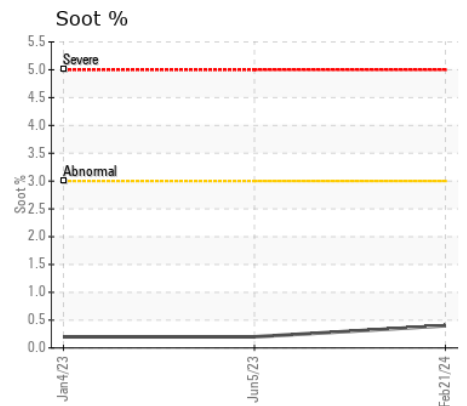
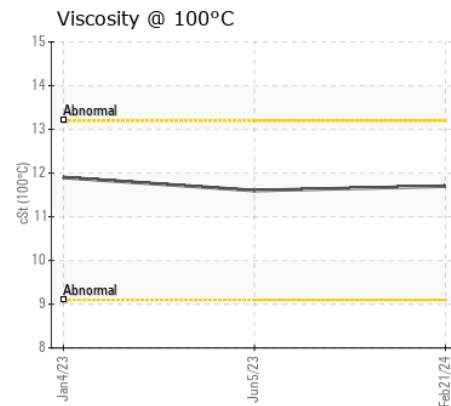
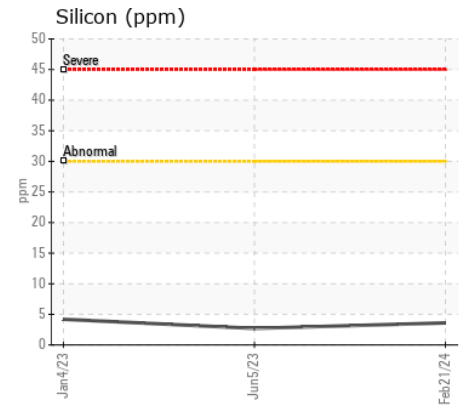
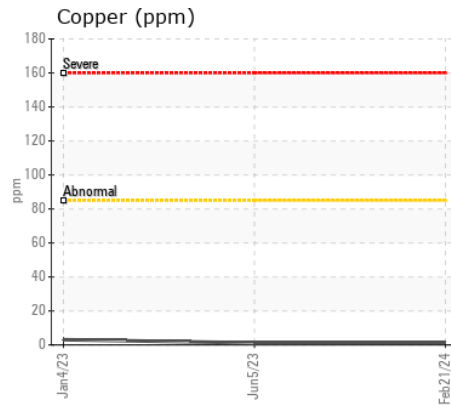
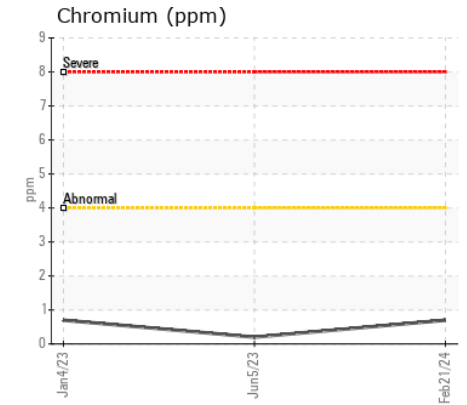
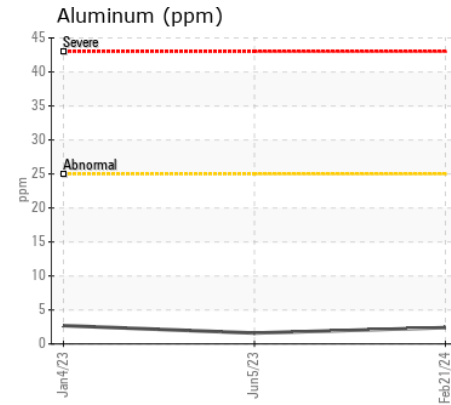
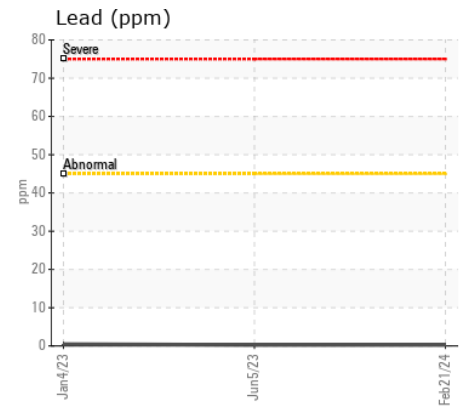
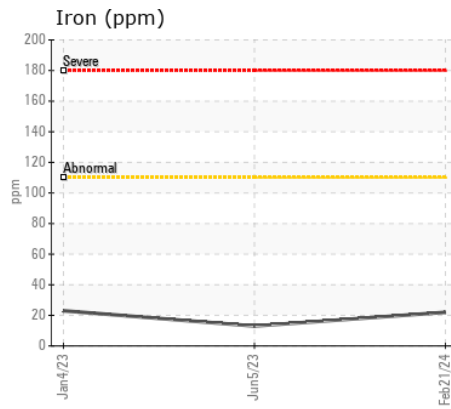
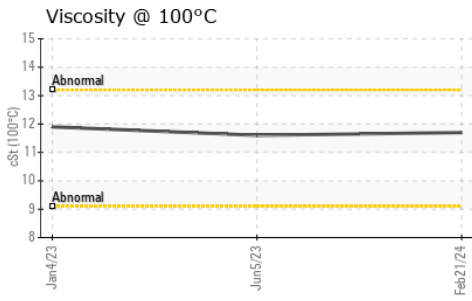
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>30	4	3	4
Potassium	ppm	ASTM D5185(m)	>20	2	<1	2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.4	0.2	0.2
Nitration	Abs/cm	ASTM D7624*	>20	11.1	9.5	10.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.3	20.1	22.6
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		1	1	2
Boron	ppm	ASTM D5185(m)		2	3	11
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		59	56	49
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)		955	956	917
Calcium	ppm	ASTM D5185(m)		1035	1068	1110
Phosphorus	ppm	ASTM D5185(m)		982	1046	1008
Zinc	ppm	ASTM D5185(m)		1157	1155	1096
Sulfur	ppm	ASTM D5185(m)		2595	2552	2570
Oxidation	Abs/.1mm	ASTM D7414*	>25	20.5	18.1	20.9
Visc @ 100°C	cSt	ASTM D7279(m)		11.7	11.6	11.9



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0090750
Lab Number : 02620406
Unique Number : 5737516
Test Package : MOB 1
Received : 07 Mar 2024
Tested : 07 Mar 2024
Diagnosed : 07 Mar 2024 - Wes Davis

GFL Environmental - 504 - Edmonton
 12015 28 Street NE
 Edmonton, AB
 CA T6S 1E2
 Contact: Jerrod Adair
 jerrodadair@gflenv.com

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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F: