



Machine Id
731020
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.
Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0100729	GFL0079592	GFL0041642
Sample Date		Client Info		05 Mar 2024	13 Oct 2023	01 Mar 2023
Machine Age	kms	Client Info		64319	64319	52063
Oil Age	kms	Client Info		4113	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				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>50	11	10	8
Chromium	ppm	ASTM D5185(m)	>4	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>9	2	2	2
Lead	ppm	ASTM D5185(m)	>30	<1	5	<1
Copper	ppm	ASTM D5185(m)	>35	1	2	1
Tin	ppm	ASTM D5185(m)	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

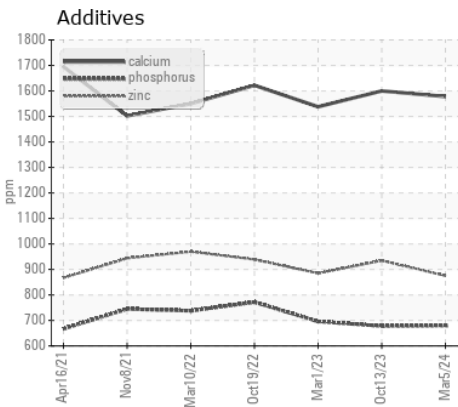
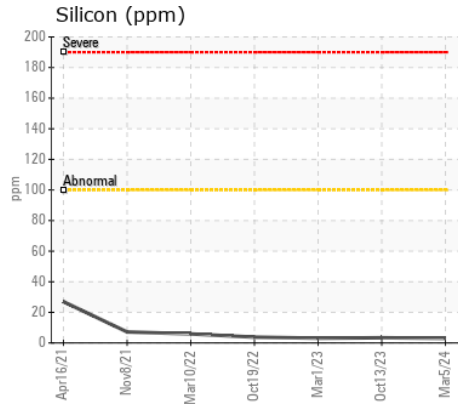
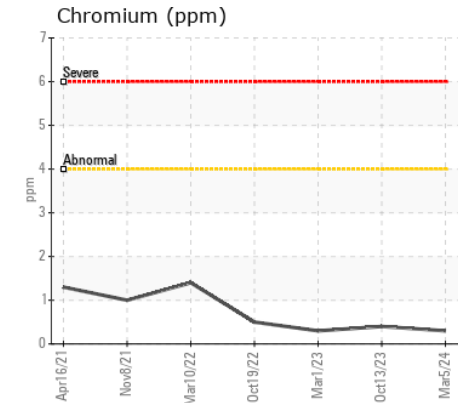
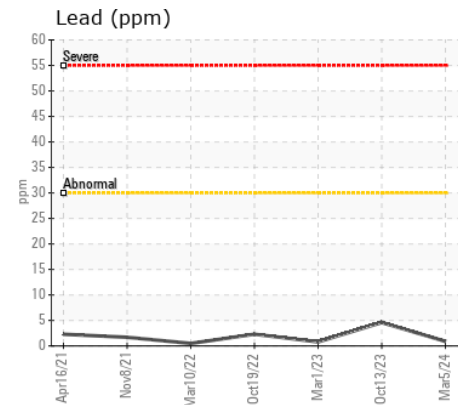
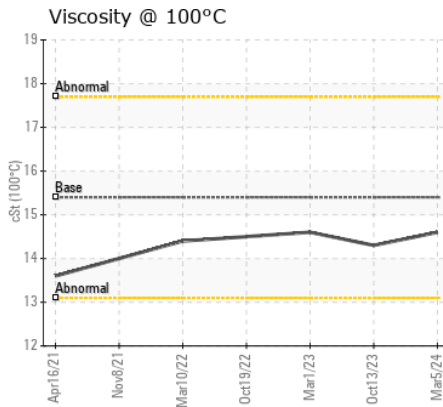
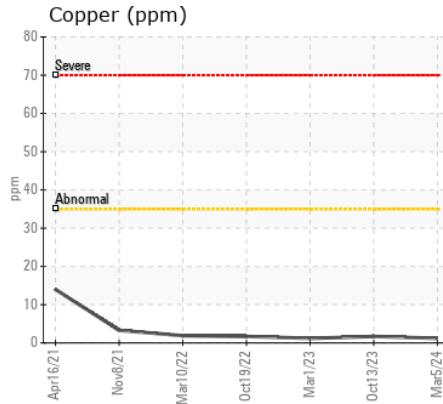
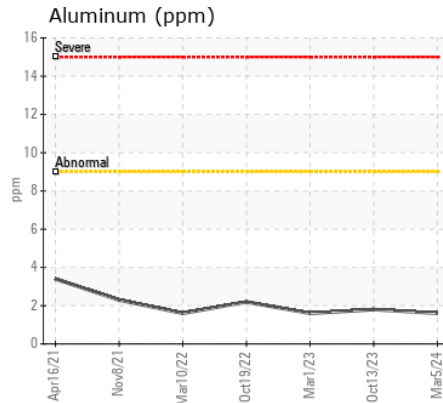
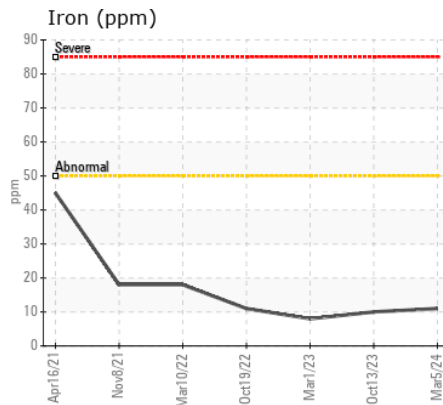
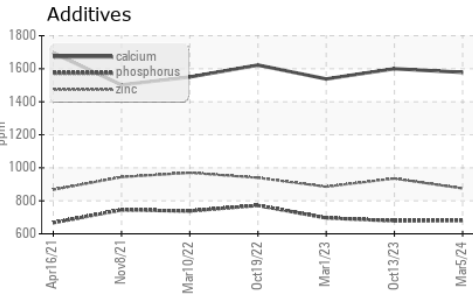
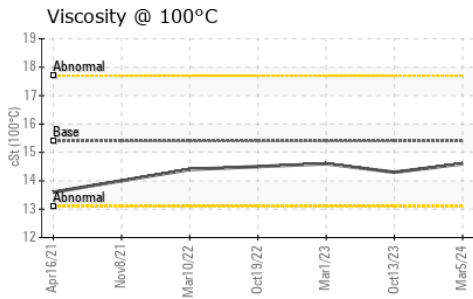
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>+100	3	3	3
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	10.3	11.7	7.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.0	24.6	18.4
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil.
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		2	3	2
Boron	ppm	ASTM D5185(m)	0	12	8	7
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	49	54	50
Manganese	ppm	ASTM D5185(m)	0	0	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	476	571	525
Calcium	ppm	ASTM D5185(m)	1070	1578	1600	1538
Phosphorus	ppm	ASTM D5185(m)	1150	680	678	696
Zinc	ppm	ASTM D5185(m)	1270	875	935	885
Sulfur	ppm	ASTM D5185(m)	2060	2094	1934	2032
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.9	19.7	11.2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	14.6	14.3	14.6



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0100729
Lab Number : 02620428
Unique Number : 5737538
Test Package : MOB 1

Received : 07 Mar 2024
Tested : 07 Mar 2024
Diagnosed : 07 Mar 2024 - Kevin Marson

GFL Environmental - 277 - Niagara Regional
 C/O Metro Truck Niagara Inc., 411 Glendale Avenue
 St. Catharines, ON
 CA L2P 3Y1

Contact: Kelly Bremner
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 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.