



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
834003

Component
Natural Gas Engine

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

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0092169	GFL0084640	GFL0084756
Sample Date		Client Info		25 Jan 2024	02 Nov 2023	19 Jun 2023
Machine Age	hrs	Client Info		1853	1210	36
Oil Age	hrs	Client Info		600	0	0
Filter Age	hrs	Client Info		600	0	0
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	13	11	27
Chromium	ppm	ASTM D5185m	>4	1	<1	<1
Nickel	ppm	ASTM D5185m	>2	1	<1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	44	5	4
Lead	ppm	ASTM D5185m	>30	<1	<1	<1
Copper	ppm	ASTM D5185m	>35	<1	2	11
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

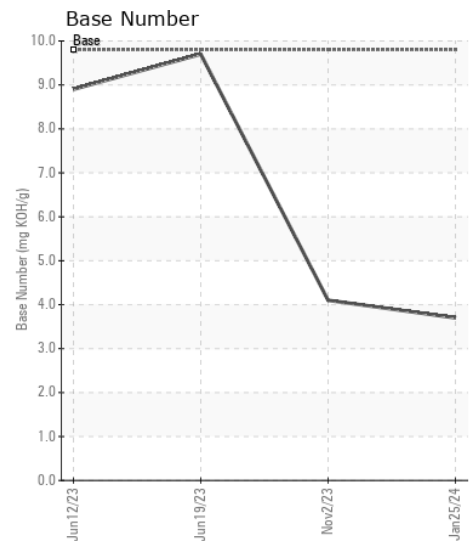
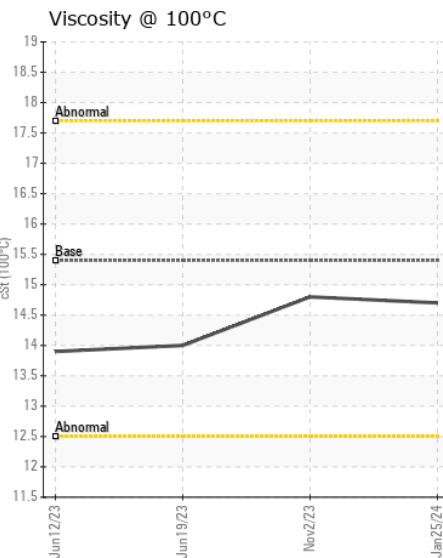
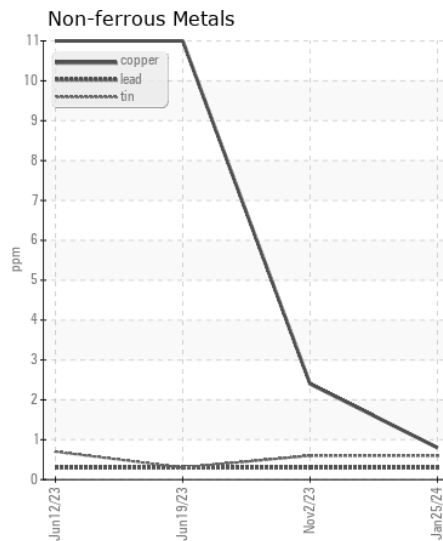
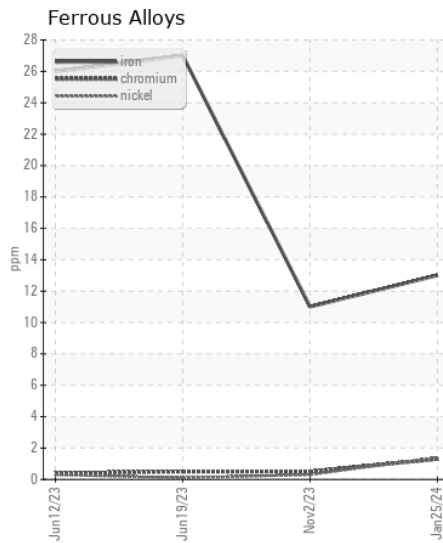
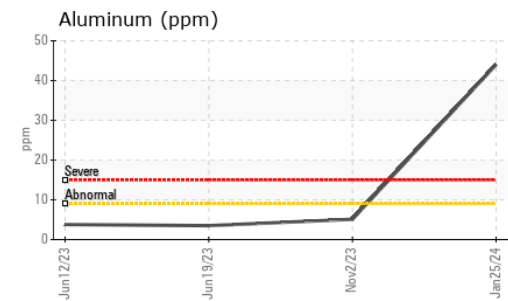
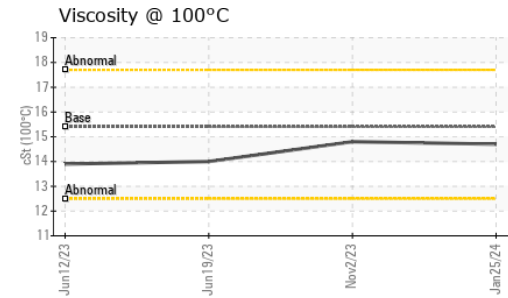
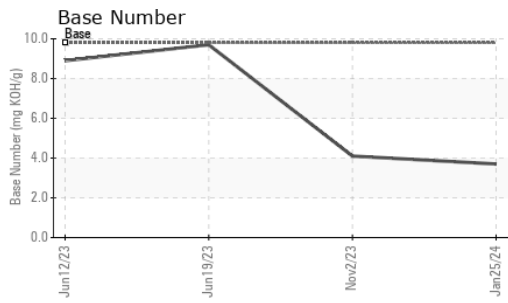
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>+100	5	8	31
Potassium	ppm	ASTM D5185m	>20	166	27	20
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	11.0	10.7	8.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.2	22.1	20.2
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		6	6	4
Boron	ppm	ASTM D5185m	0	8	8	56
Barium	ppm	ASTM D5185m	0	0	0	1
Molybdenum	ppm	ASTM D5185m	60	51	53	51
Manganese	ppm	ASTM D5185m	0	1	2	13
Magnesium	ppm	ASTM D5185m	1010	533	663	797
Calcium	ppm	ASTM D5185m	1070	1495	1533	1206
Phosphorus	ppm	ASTM D5185m	1150	641	708	749
Zinc	ppm	ASTM D5185m	1270	929	1062	904
Sulfur	ppm	ASTM D5185m	2060	2345	2609	2895
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.4	18.8	16.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	3.7	4.1	9.7
Visc @ 100°C	cSt	ASTM D445	15.4	14.7	14.8	14.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0092169 **Received** : 30 Jan 2024
Lab Number : 06074434 **Diagnosed** : 31 Jan 2024
Unique Number : 10856525 **Diagnostician** : Sean Felton
Test Package : FLEET

GFL Environmental - 856 - Houston South
 8515 Highway 6 South
 Houston, TX
 US 77083
 Contact: Jose Gonzalez
 jgonzalez2@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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F: