

Machine Id
INTERNATIONAL 130-2103
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0084905	PC0072669	PC0038934
Sample Date		Client Info		21 Dec 2023	04 Oct 2023	08 Aug 2022
Machine Age	kms	Client Info		126000	0	35205
Oil Age	kms	Client Info		0	0	0
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	N/A
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	10	17	70
Chromium	ppm	ASTM D5185(m)	>20	<1	1	2
Nickel	ppm	ASTM D5185(m)	>4	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	5	9	15
Lead	ppm	ASTM D5185(m)	>40	1	2	4
Copper	ppm	ASTM D5185(m)	>330	<1	1	37
Tin	ppm	ASTM D5185(m)	>15	<1	<1	3
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	VLITE	---	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	---	NONE

CONTAMINATION

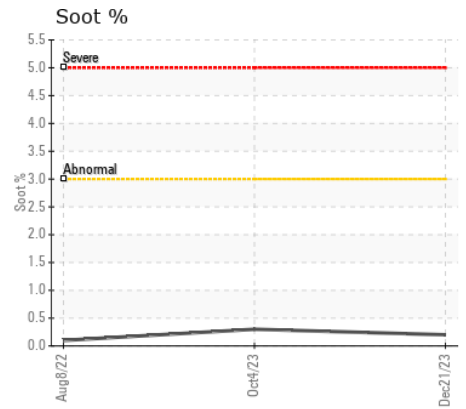
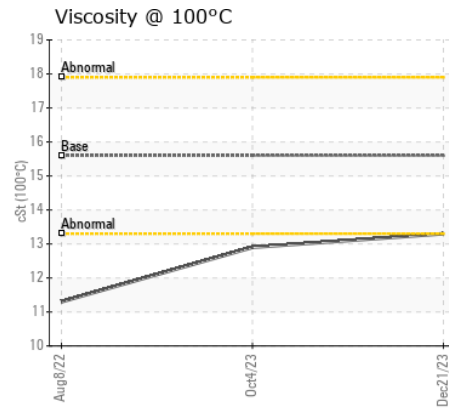
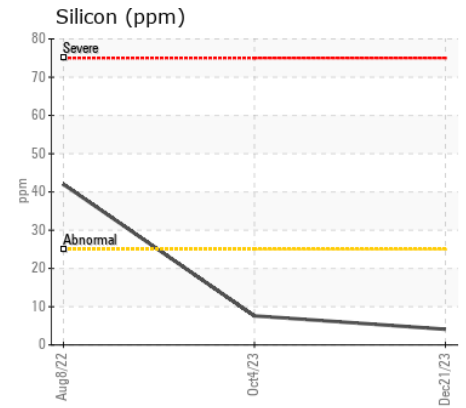
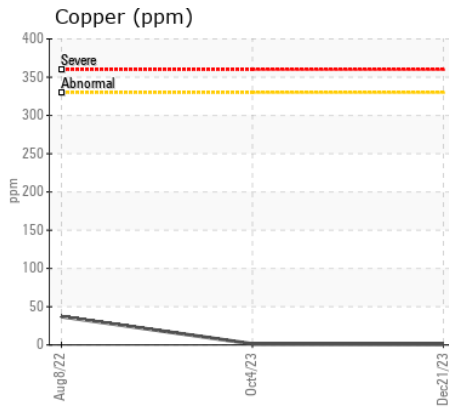
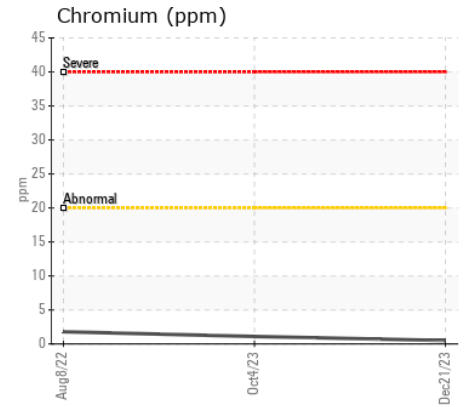
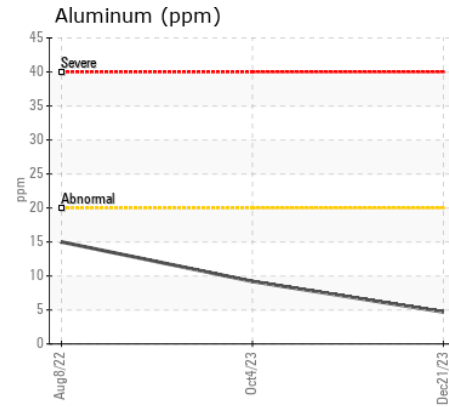
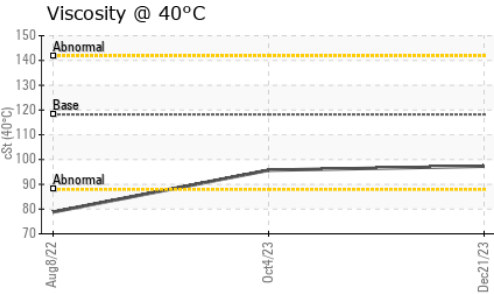
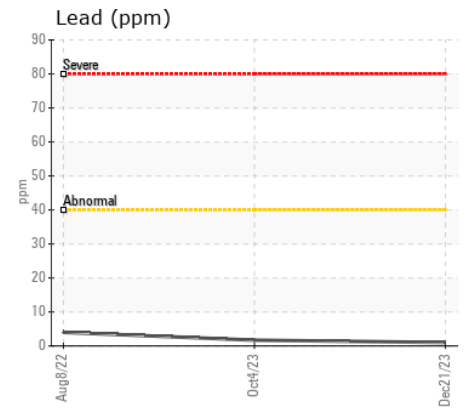
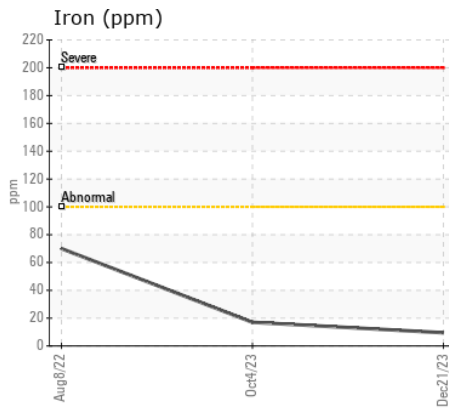
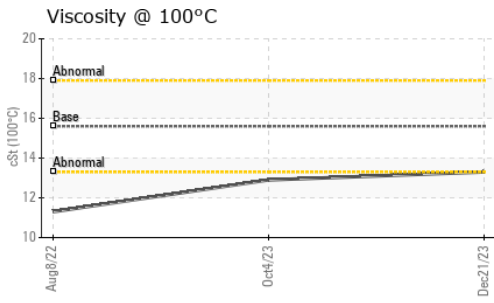
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	4	8	42
Potassium	ppm	ASTM D5185(m)	>20	8	20	62
Fuel		WC Method	>2.0	<1.0	1	0.9
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	0.0
Soot %	%	ASTM D7844*	>3	0.2	0.3	0.1
Nitration	Abs/cm	ASTM D7624*	>20	6.8	8.4	8.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.3	20.6	22.5
Silt	scalar	Visual*	NONE	NONE	---	NONE
Debris	scalar	Visual*	NONE	NONE	---	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	---	NONE
Appearance	scalar	Visual*	NORML	NORML	---	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
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)		4	5	6
Boron	ppm	ASTM D5185(m)	0	2	2	54
Barium	ppm	ASTM D5185(m)	0	0	0	6
Molybdenum	ppm	ASTM D5185(m)	60	59	60	64
Manganese	ppm	ASTM D5185(m)	0	0	0	6
Magnesium	ppm	ASTM D5185(m)	1010	956	972	442
Calcium	ppm	ASTM D5185(m)	1070	1069	1097	1744
Phosphorus	ppm	ASTM D5185(m)	1150	1003	990	1018
Zinc	ppm	ASTM D5185(m)	1270	1218	1218	1166
Sulfur	ppm	ASTM D5185(m)	2060	2705	2373	2489
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.5	15.7	17.9
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	97.3	95.7	▲ 78.8
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	13.3	12.9	▲ 11.3
Viscosity Index (VI)	Scale	ASTM D2270*	139	135	131	133



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0084905 **Received** : 08 Jan 2024
Lab Number : 02606953 **Diagnosed** : 09 Jan 2024
Unique Number : 5708039 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: KV40, VI, Visual)

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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.