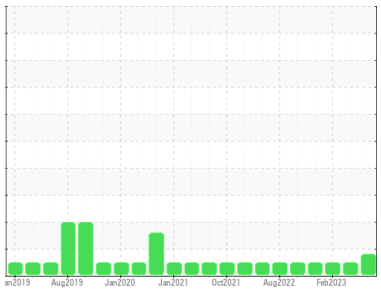
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
INTERNATIONAL 323
Component
Diesel Engine
Fluid
PETRO CANADA DURON SAE 10W30 (--- LTR)

DIAGNOSIS

Recommendation

Nous avons pris note que la vidange d`huile a été effectuée au moment de l`échantillonnage. Nous vous recommandons d`échantillonner de nouveau dès que possible afin de contrôler la situation.

Wear

Usure de cylindre, de vilebrequin ou d`arbre à cames.

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. Il n`y a aucun indice de contamination dans l`huile.

Fluid Condition

l`huile n'est plus en état de service en raison d'une usure anomale et/ou sévère.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0075391**	PC0072773	PC0067694
Sample Date		Client Info		**09 May 2023**	09 May 2023	27 Feb 2023
Machine Age	kms	Client Info		**469126**	469126	450518
Oil Age	kms	Client Info		**56773**	56773	380165
Oil Changed		Client Info		**Changed**	Changed	Not Changd
Sample Status				**ABNORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>2.0	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	0.0

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		**0**	---	---
Iron	ppm	ASTM D5185(m)	>100	▲ **105**	95	31
Chromium	ppm	ASTM D5185(m)	>20	**3**	3	2
Nickel	ppm	ASTM D5185(m)	>4	**0**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	<1
Silver	ppm	ASTM D5185(m)	>3	**<1**	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	**10**	9	6
Lead	ppm	ASTM D5185(m)	>40	**5**	4	3
Copper	ppm	ASTM D5185(m)	>330	**2**	2	<1
Tin	ppm	ASTM D5185(m)	>15	**<1**	<1	<1
Antimony	ppm	ASTM D5185(m)		**0**	<1	<1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

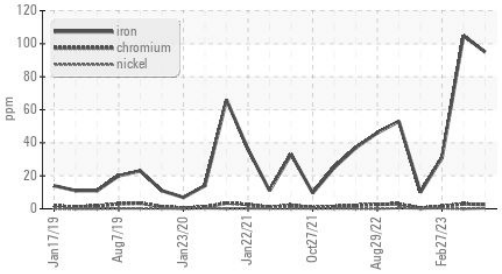
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	1	**1**	3	2
Barium	ppm	ASTM D5185(m)	1	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	1	**62**	62	61
Manganese	ppm	ASTM D5185(m)	1	**1**	1	<1
Magnesium	ppm	ASTM D5185(m)	10	**1009**	1000	986
Calcium	ppm	ASTM D5185(m)	2942	**1088**	1095	1139
Phosphorus	ppm	ASTM D5185(m)	1102	**1059**	1090	1102
Zinc	ppm	ASTM D5185(m)	1351	**1216**	1217	1225
Sulfur	ppm	ASTM D5185(m)	3903	**2391**	2450	2606
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**6**	5	4
Sodium	ppm	ASTM D5185(m)		**2**	4	2
Potassium	ppm	ASTM D5185(m)	>20	**13**	13	5

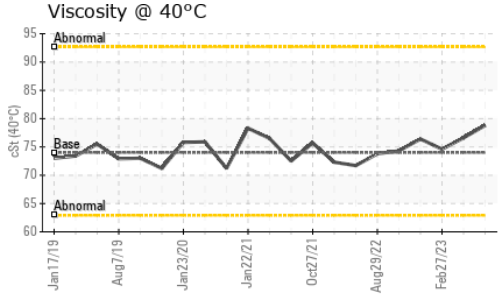
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0.8**	0.7	0.3
Nitration	Abs/cm	ASTM D7624*	>20	**13.7**	12.7	11.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	**25.8**	23.5	21.3

OIL ANALYSIS REPORT

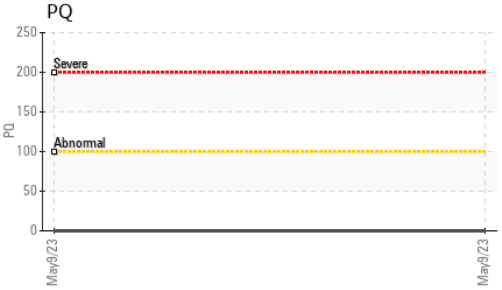
Ferrous Alloys



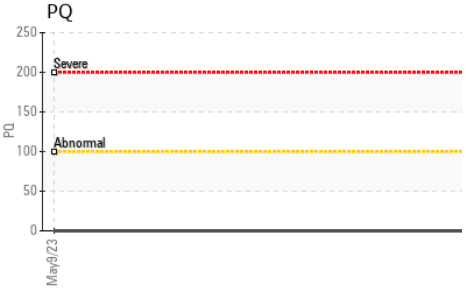
Viscosity @ 40°C



PQ



PQ



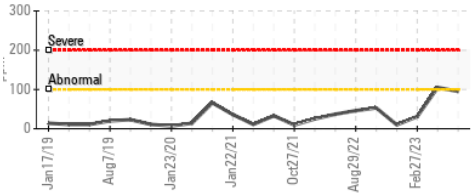
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**21.5**	20.0	18.5

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Debris	scalar	Visual*	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	**VLITE**	VLITE	NONE
Appearance	scalar	Visual*	NORML	**NORML**	NORML	NORML
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

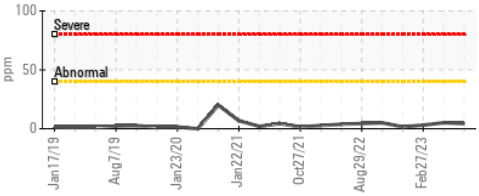
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	74.0	**78.8**	76.6	74.6
Visc @ 100°C	cSt	ASTM D7279(m)	11.4	**11.7**	11.5	11.2
Viscosity Index (VI)	Scale	ASTM D2270*	146	**141**	142	140

GRAPHS

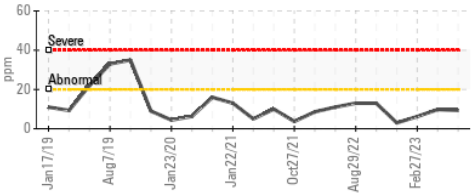
Iron (ppm)



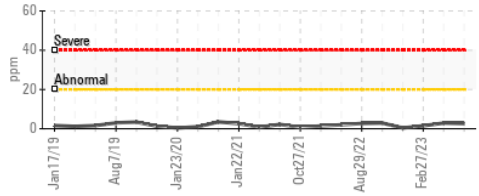
Lead (ppm)



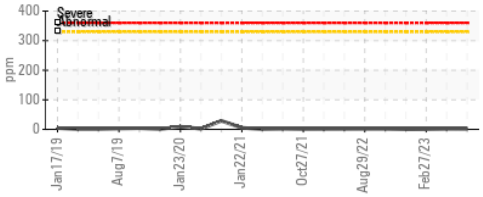
Aluminum (ppm)



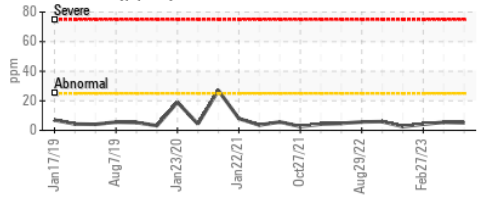
Chromium (ppm)



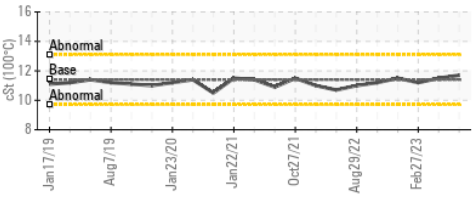
Copper (ppm)



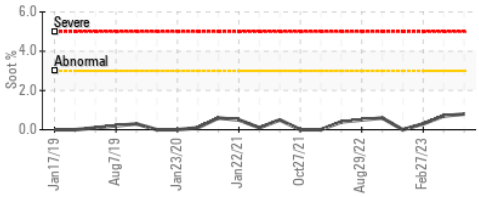
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0075391 **Recieved** : 22 Aug 2023
Lab Number : 02577354 **Diagnosed** : 23 Aug 2023
Unique Number : 5630414 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: KV40, PQ, VI, Visual)

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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