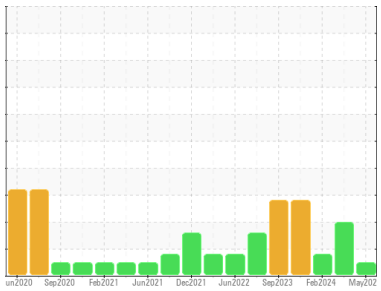
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
1203
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (24 LTR)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is no indication of any contamination in the oil.

Fluid Condition
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0080625**	PC0081950	PC0081598
Sample Date		Client Info		**11 May 2024**	25 Apr 2024	15 Feb 2024
Machine Age	kms	Client Info		**689910**	688383	675250
Oil Age	kms	Client Info		**1527**	12819	13430
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**NORMAL**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	**<1.0**	0.8	1
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	0.0	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	**5**	73	69
Chromium	ppm	ASTM D5185(m)	>20	**0**	2	2
Nickel	ppm	ASTM D5185(m)	>4	**0**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)	>3	**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>20	**<1**	4	4
Lead	ppm	ASTM D5185(m)	>40	**0**	0	<1
Copper	ppm	ASTM D5185(m)	>330	**<1**	4	4
Tin	ppm	ASTM D5185(m)	>15	**0**	0	0
Antimony	ppm	ASTM D5185(m)		**0**	0	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

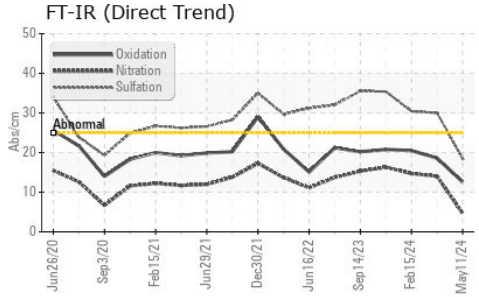
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	**2**	5	3
Barium	ppm	ASTM D5185(m)	0	**<1**	0	0
Molybdenum	ppm	ASTM D5185(m)	60	**60**	79	67
Manganese	ppm	ASTM D5185(m)	0	**0**	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	**972**	1079	1067
Calcium	ppm	ASTM D5185(m)	1070	**1022**	1204	1230
Phosphorus	ppm	ASTM D5185(m)	1150	**1024**	1088	1108
Zinc	ppm	ASTM D5185(m)	1270	**1164**	1301	1299
Sulfur	ppm	ASTM D5185(m)	2060	**2608**	2505	2635
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**11**	14	7
Sodium	ppm	ASTM D5185(m)		**73**	● 457	43
Potassium	ppm	ASTM D5185(m)	>20	**0**	3	1

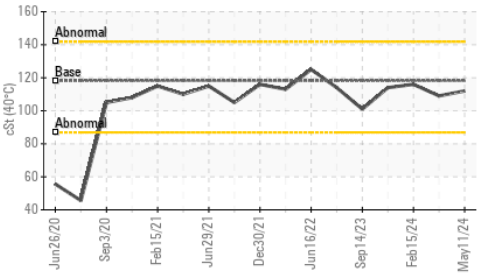
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0.1**	▲ 4	▲ 4.1
Nitration	Abs/cm	ASTM D7624*	>20	**4.7**	14.0	14.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	**18.6**	30.0	30.4

OIL ANALYSIS REPORT

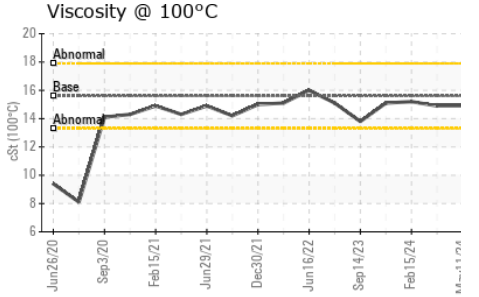
FT-IR (Direct Trend)



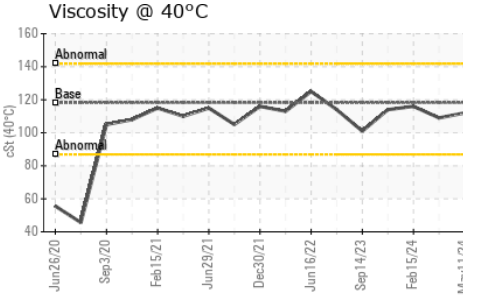
Viscosity @ 40°C



Viscosity @ 100°C



Viscosity @ 40°C



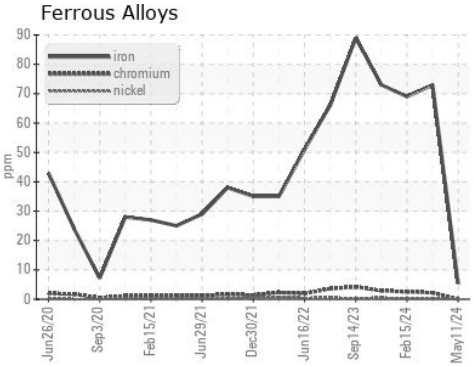
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**12.6**	18.6	20.5
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	**10.05**	---	---

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

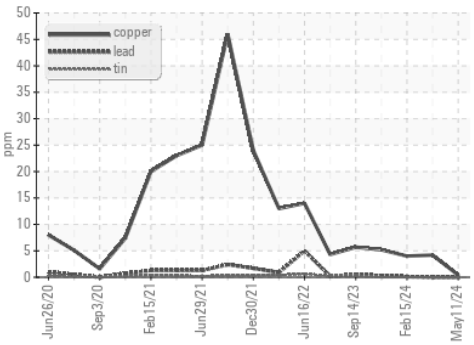
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	**112**	109	116
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	**14.9**	14.9	15.2
Viscosity Index (VI)	Scale	ASTM D2270*	139	**137**	141	136

GRAPHS

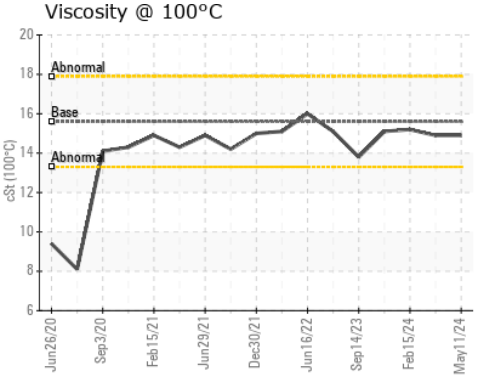
Ferrous Alloys



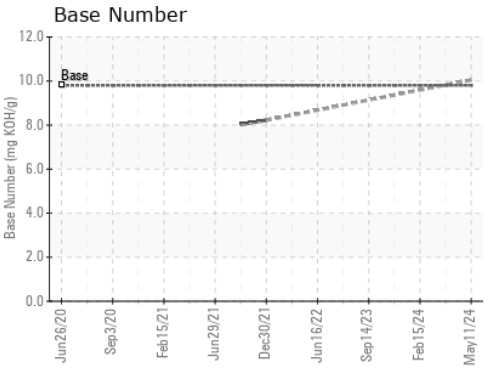
Non-ferrous Metals



Viscosity @ 100°C



Base Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0080625 **Received** : 29 May 2024
Lab Number : 02638324 **Tested** : 29 May 2024
Unique Number : 5787486 **Diagnosed** : 29 May 2024 - Wes Davis
Test Package : IND 2 (Additional Tests: KV40, VI)

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.

Metrobus Transit
25 Messenger Drive
St. John`s, NL
CA A1B 0H6
Contact: Danny Oliver
danny.oliver@metrobus.com
T: (709)570-2025
F:

Report Id: STJNEW [WCAMIS] 02638324 (Generated: 05/29/2024 16:39:40) Rev: 1

Submitted By: Dan Finlay