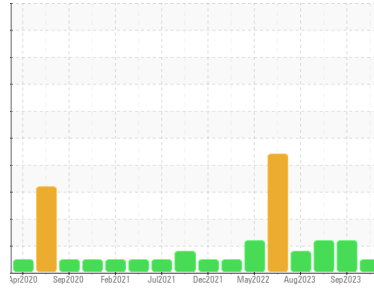


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
1205

Component
Diesel Engine

Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Test for glycol is negative. 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		PC0080282	PC0031537	PC0031705
Sample Date	Client Info		18 Dec 2023	19 Sep 2023	25 Aug 2023
Machine Age	kms	Client Info	732788	720438	715796
Oil Age	kms	Client Info	12130	13663	9201
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	ATTENTION	ATTENTION

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>75	14	36	63
Chromium	ppm	ASTM D5185(m)	>5	<1	2	2
Nickel	ppm	ASTM D5185(m)	>4	<1	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	<1	<1	<1
Aluminum	ppm	ASTM D5185(m)	>15	2	3	3
Lead	ppm	ASTM D5185(m)	>25	<1	<1	3
Copper	ppm	ASTM D5185(m)	>100	4	5	5
Tin	ppm	ASTM D5185(m)	>4	0	0	<1
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	3	15	17
Barium	ppm	ASTM D5185(m)	0	<1	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	66	82	81
Manganese	ppm	ASTM D5185(m)	0	2	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	1016	944	798
Calcium	ppm	ASTM D5185(m)	1070	1107	1241	1442
Phosphorus	ppm	ASTM D5185(m)	1150	1039	1010	1037
Zinc	ppm	ASTM D5185(m)	1270	1228	1242	1254
Sulfur	ppm	ASTM D5185(m)	2060	2650	2582	2603
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

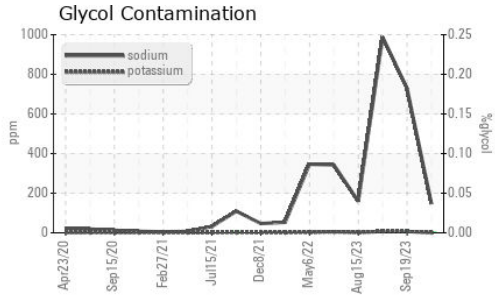
CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	23	22	24
Sodium	ppm	ASTM D5185(m)		147	▲ 729	▲ 988
Potassium	ppm	ASTM D5185(m)	>20	1	7	7
Glycol	%	ASTM D7922*		0.0	0.0	0.0

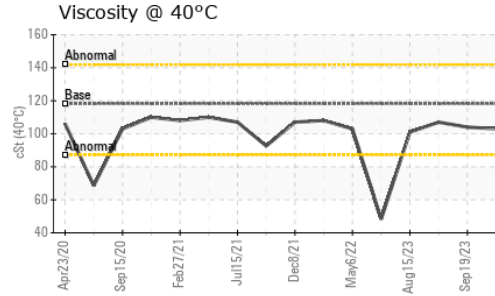
INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>6	0.5	0.2	3
Nitration	Abs/cm	ASTM D7624*	>20	6.9	6.7	15.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.9	22.6	32.9

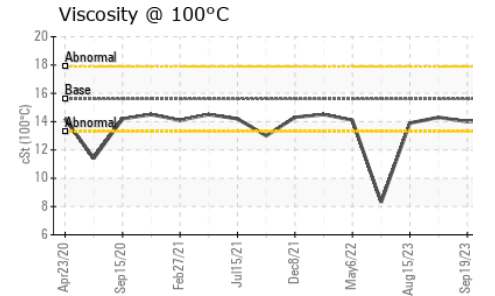
OIL ANALYSIS REPORT



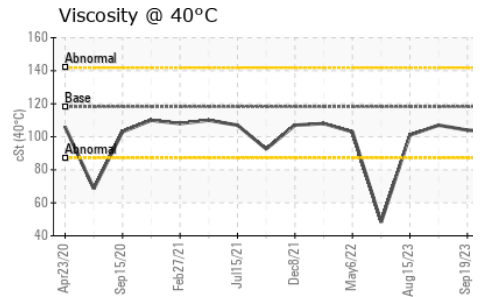
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	14.5	20.2	21.4
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	10.91	---	---



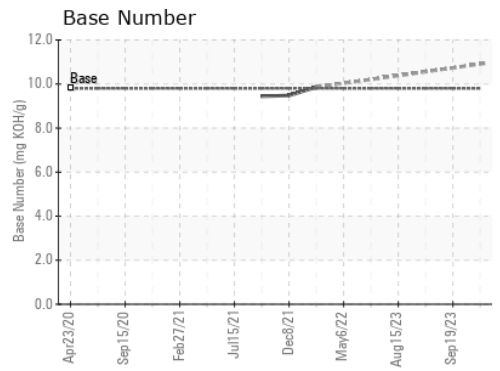
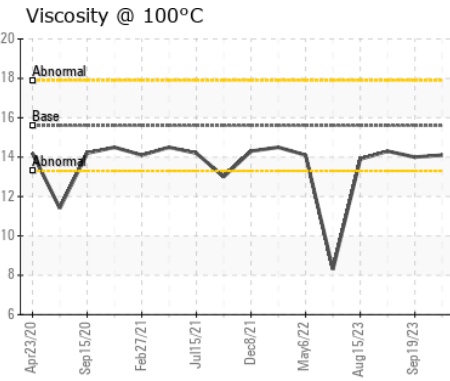
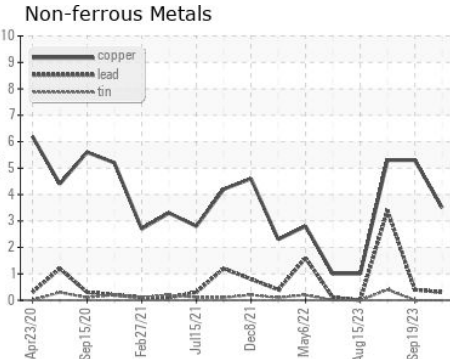
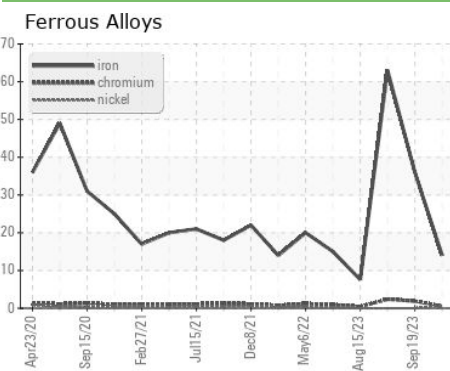
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	103	104	107
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	14.1	14.0	14.3
Viscosity Index (VI)	Scale	ASTM D2270*	139	139	136	136



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0080282 **Received** : 19 Dec 2023
Lab Number : **02604040** **Diagnosed** : 21 Dec 2023
Unique Number : 5697125 **Diagnostician** : Wes Davis
Test Package : IND 2 (Additional Tests: Glycol, KV40, VI)

Metrobus Transit
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 St. John's, NL
 CA A1B 0H6
 Contact: Danny Oliver
 danny.oliver@metrobus.com
 T: (709)570-2025
 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.