



WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	MARGINAL



Machine Id
TC203
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (9 hrs)

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		PCA0091034	PCA0085494	PCA0080014
Sample Date		Client Info		08 Mar 2023	13 Jan 2023	08 Nov 2022
Machine Age	hrs	Client Info		6620	6305	5969
Oil Age	hrs	Client Info		315	336	307
Filter Age	hrs	Client Info		315	336	307
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				MARGINAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	7	10	11
Chromium	ppm	ASTM D5185m	>6	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	<1	2
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>30	2	2	3
Lead	ppm	ASTM D5185m	>10	<1	<1	<1
Copper	ppm	ASTM D5185m	>150	3	3	2
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

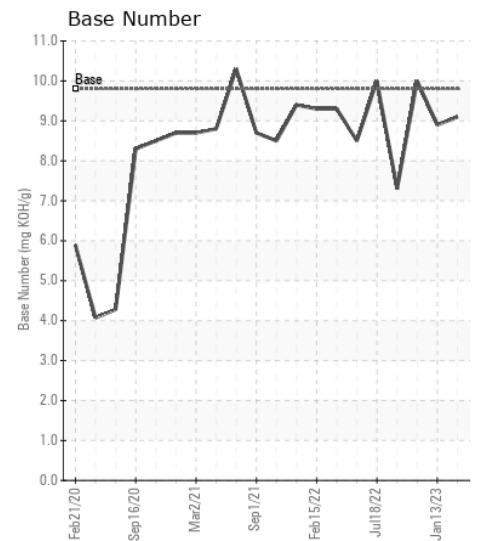
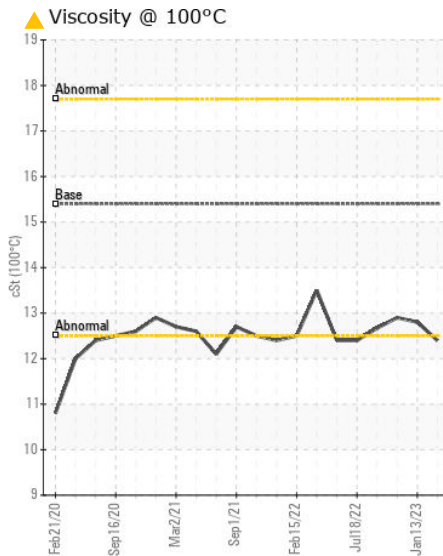
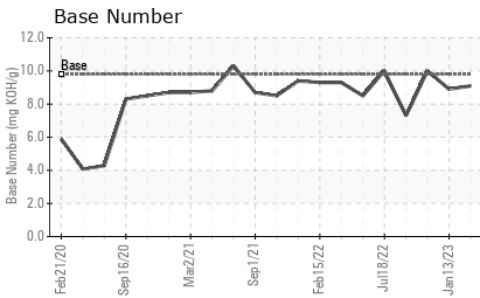
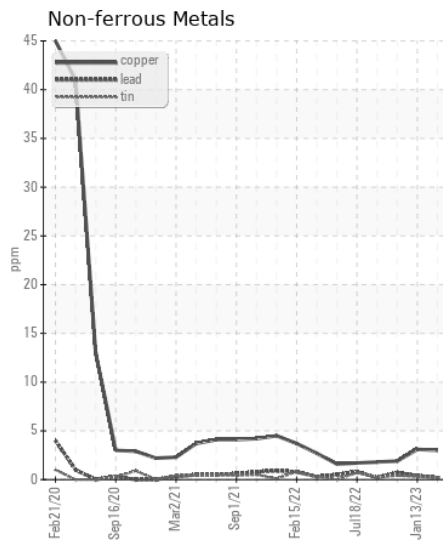
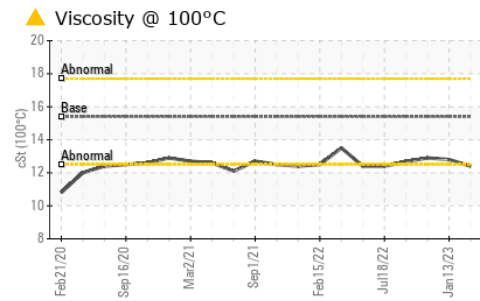
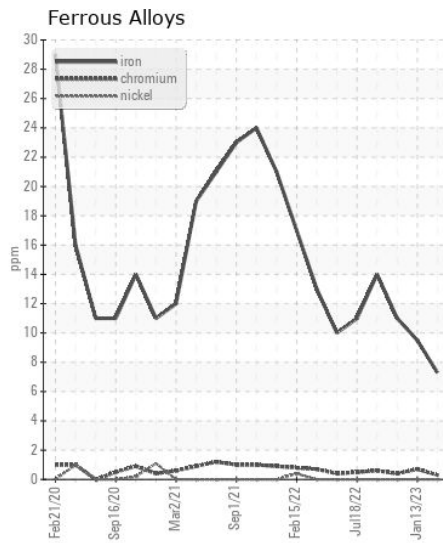
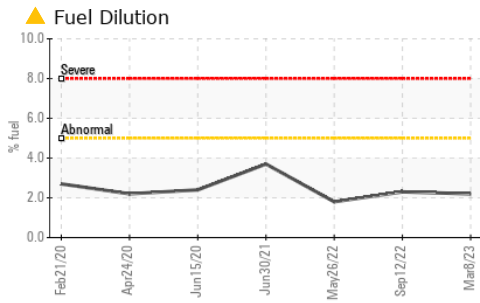
Light fuel dilution occurring.

Silicon	ppm	ASTM D5185m	>20	4	5	5
Potassium	ppm	ASTM D5185m	>20	<1	0	0
Fuel	%	ASTM D3524	>5	▲ 2.2	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	6.6	6.9	7.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.7	17.9	19.5
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	>0.2	NEG	NEG	NEG

FLUID CONDITION

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		0	1	1
Boron	ppm	ASTM D5185m	0	6	10	23
Barium	ppm	ASTM D5185m	0	2	0	0
Molybdenum	ppm	ASTM D5185m	60	62	57	54
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	886	904	857
Calcium	ppm	ASTM D5185m	1070	1114	1215	1139
Phosphorus	ppm	ASTM D5185m	1150	995	982	908
Zinc	ppm	ASTM D5185m	1270	1187	1167	1124
Sulfur	ppm	ASTM D5185m	2060	3069	3326	3312
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.3	13.9	14.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.1	8.9	10
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.4	12.8	12.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0091034 **Received** : 13 Mar 2023
Lab Number : 05789403 **Tested** : 16 Mar 2023
Unique Number : 10374074 **Diagnosed** : 16 Mar 2023 - Jonathan Hester
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

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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