



WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	SEVERE

Machine Id
729
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- QTS)

RECOMMENDATION

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0870212	WC0725865	WC0817197
Sample Date		Client Info		13 Jun 2024	29 Apr 2024	06 Feb 2024
Machine Age	hrs	Client Info		25899	25761	25618
Oil Age	hrs	Client Info		25899	25761	0
Filter Age	hrs	Client Info		25899	25761	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	SEVERE	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	0	4	3
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	2	1	<1
Lead	ppm	ASTM D5185m	>40	0	2	0
Copper	ppm	ASTM D5185m	>330	0	<1	0
Tin	ppm	ASTM D5185m	>15	0	2	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

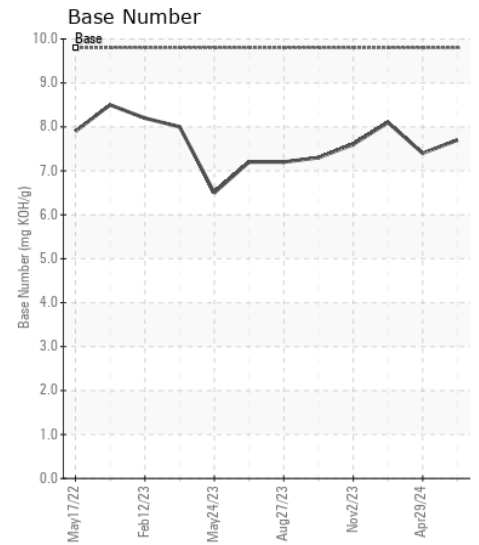
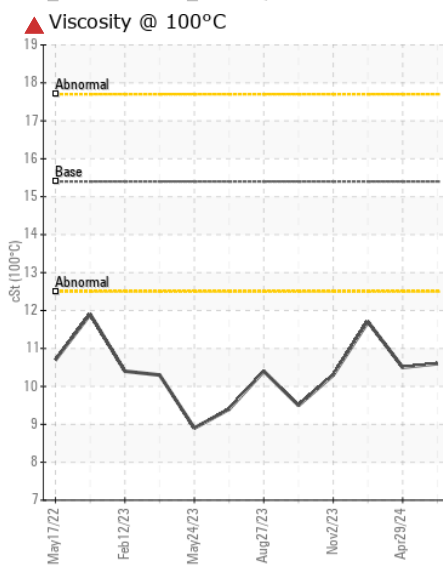
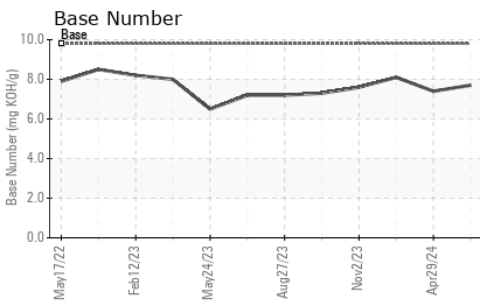
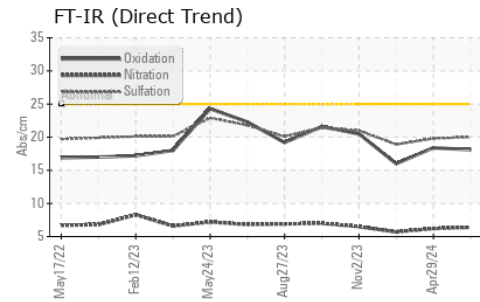
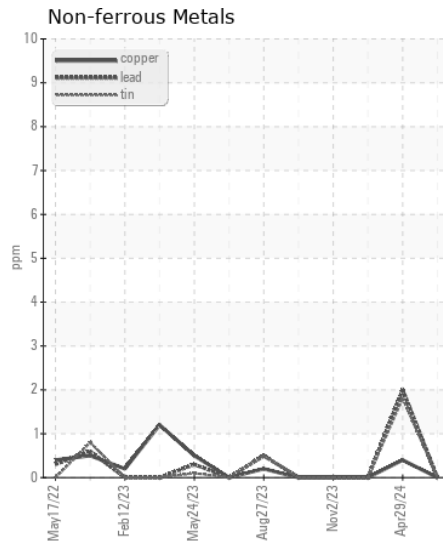
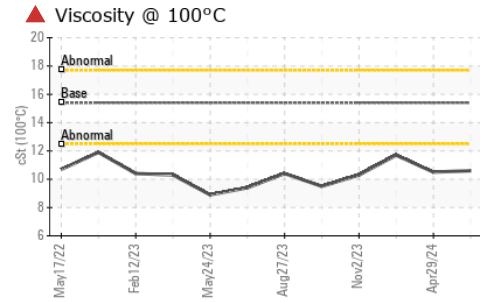
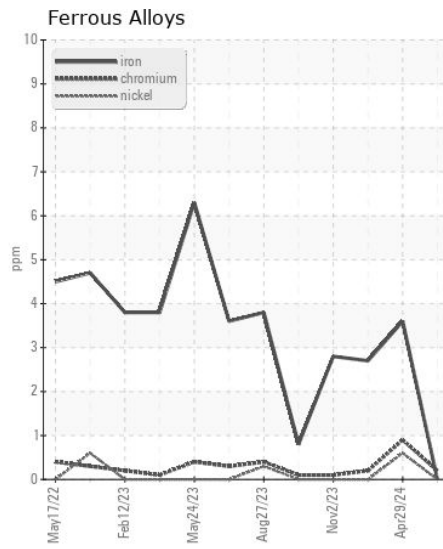
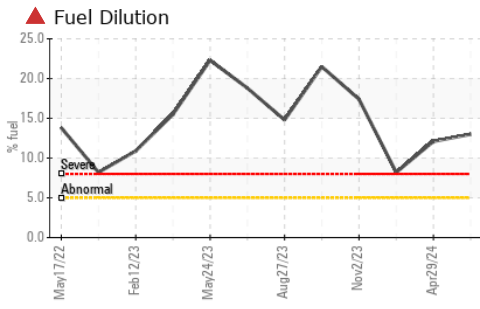
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185m	>25	2	3	2
Potassium	ppm	ASTM D5185m	>20	2	2	0
Fuel	%	ASTM D3524	>5	▲ 13.0	▲ 12.1	▲ 8.2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	6.4	6.2	5.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.0	19.8	18.9
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 BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		0	2	0
Boron	ppm	ASTM D5185m	0	2	3	5
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	50	47	56
Manganese	ppm	ASTM D5185m	0	0	<1	<1
Magnesium	ppm	ASTM D5185m	1010	817	899	851
Calcium	ppm	ASTM D5185m	1070	918	975	932
Phosphorus	ppm	ASTM D5185m	1150	825	1008	858
Zinc	ppm	ASTM D5185m	1270	1117	1161	1115
Sulfur	ppm	ASTM D5185m	2060	2646	3510	2881
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.1	18.4	16.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.7	7.4	8.1
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 10.6	▲ 10.5	▲ 11.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0870212

Lab Number : 06221005

Unique Number : 11099202

Test Package : FLEET (Additional Tests: PercentFuel)

Received : 26 Jun 2024

Tested : 01 Jul 2024

Diagnosed : 01 Jul 2024 - Wes Davis

AREA TRANSPORTATION AUTHORITY

44 TRANSPORTATION CENTER

JOHNSONBURG, PA

US 15845

Contact: DONALD KNEPP

dknepp@rideata.com

T: (814)371-0443

F:

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)