

Machine Id
222673
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0057344	PCA0057258	---
Sample Date		Client Info		03 May 2024	14 Nov 2023	---
Machine Age	mls	Client Info		2951	44753	---
Oil Age	mls	Client Info		628	11814	---
Filter Age	mls	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	20	14	---
Chromium	ppm	ASTM D5185m	>20	<1	<1	---
Nickel	ppm	ASTM D5185m	>4	<1	0	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	1	0	---
Aluminum	ppm	ASTM D5185m	>20	15	10	---
Lead	ppm	ASTM D5185m	>40	<1	0	---
Copper	ppm	ASTM D5185m	>330	3	3	---
Tin	ppm	ASTM D5185m	>15	1	<1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

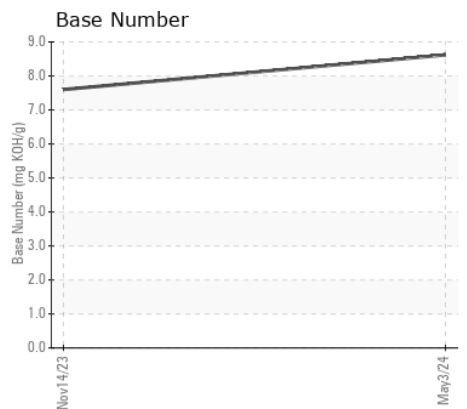
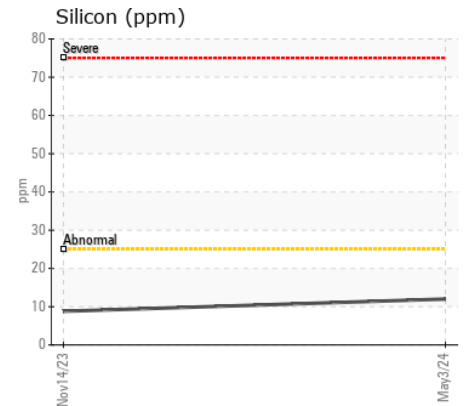
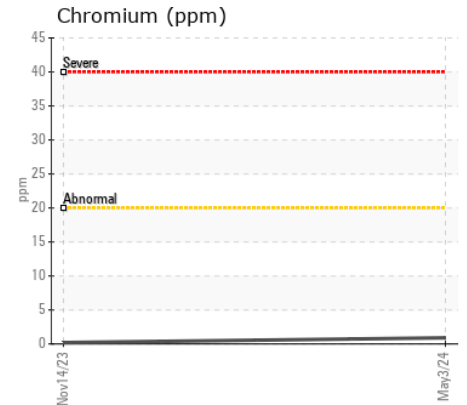
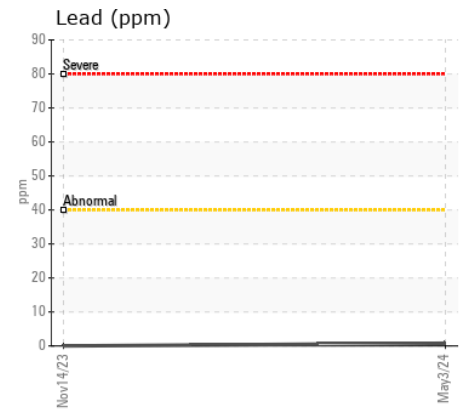
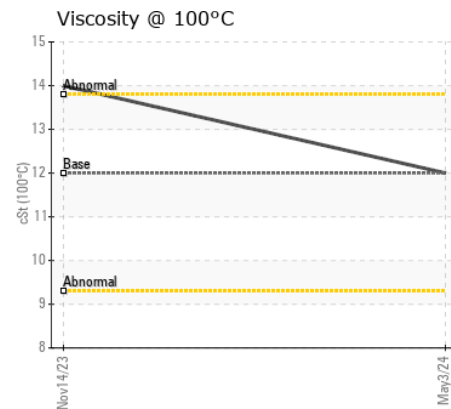
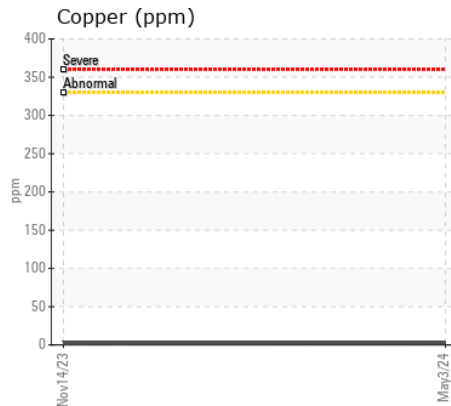
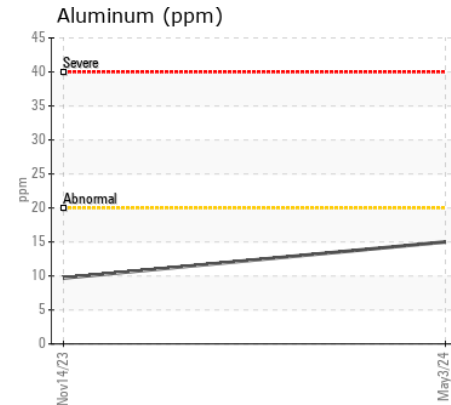
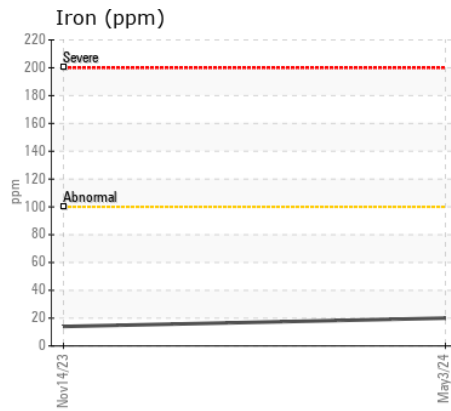
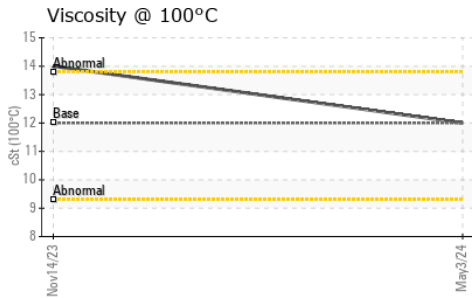
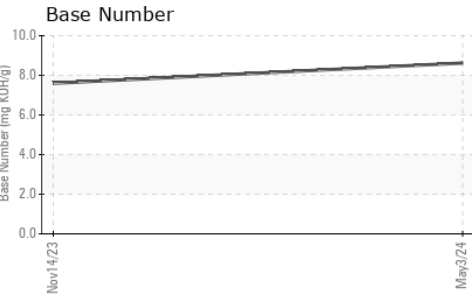
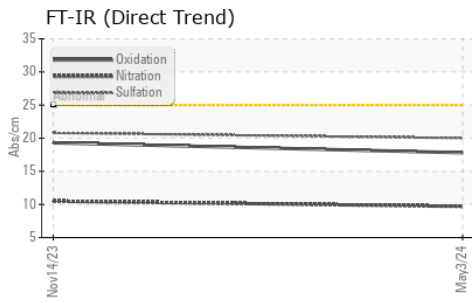
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	12	9	---
Potassium	ppm	ASTM D5185m	>20	41	24	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.3	0.2	---
Nitration	Abs/cm	*ASTM D7624	>20	9.7	10.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.0	20.8	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

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.

Sodium	ppm	ASTM D5185m		2	0	---
Boron	ppm	ASTM D5185m	2	5	17	---
Barium	ppm	ASTM D5185m	0	1	10	---
Molybdenum	ppm	ASTM D5185m	50	58	43	---
Manganese	ppm	ASTM D5185m	0	1	<1	---
Magnesium	ppm	ASTM D5185m	950	903	549	---
Calcium	ppm	ASTM D5185m	1050	1267	1445	---
Phosphorus	ppm	ASTM D5185m	995	1017	803	---
Zinc	ppm	ASTM D5185m	1180	1245	863	---
Sulfur	ppm	ASTM D5185m	2600	3358	2657	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.8	19.3	---
Base Number (BN)	mg KOH/g	ASTM D2896		8.62	7.60	---
Visc @ 100°C	cSt	ASTM D445	12.00	12.0	14.0	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0057344
Lab Number : 06190727
Unique Number : 11047479
Test Package : MOB 2

Received : 24 May 2024
Tested : 28 May 2024
Diagnosed : 28 May 2024 - Wes Davis

VALLEY PACIFIC PETROLEUM SERVICES
 152 FRANK WEST CIRCLE
 STOCKTON, CA
 US 95206
 Contact: MARCEY LIGHTFOOT
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 T: (209)461-3611
 F: (209)888-6196

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)