



Machine Id
HEX244696
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0110076	PCA0090482	---
Sample Date		Client Info		24 May 2024	22 Mar 2024	---
Machine Age	hrs	Client Info		575	147	---
Oil Age	hrs	Client Info		575	147	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				ABNORMAL	ATTENTION	---

WEAR

The copper level is abnormal. Moderate concentration of visible metal present. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	15	9	---
Chromium	ppm	ASTM D5185m	>10	0	0	---
Nickel	ppm	ASTM D5185m	>10	0	1	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>10	3	3	---
Lead	ppm	ASTM D5185m	>20	<1	2	---
Copper	ppm	ASTM D5185m	>15	▲ 109	55	---
Tin	ppm	ASTM D5185m	>10	2	2	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	▲ MODER	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

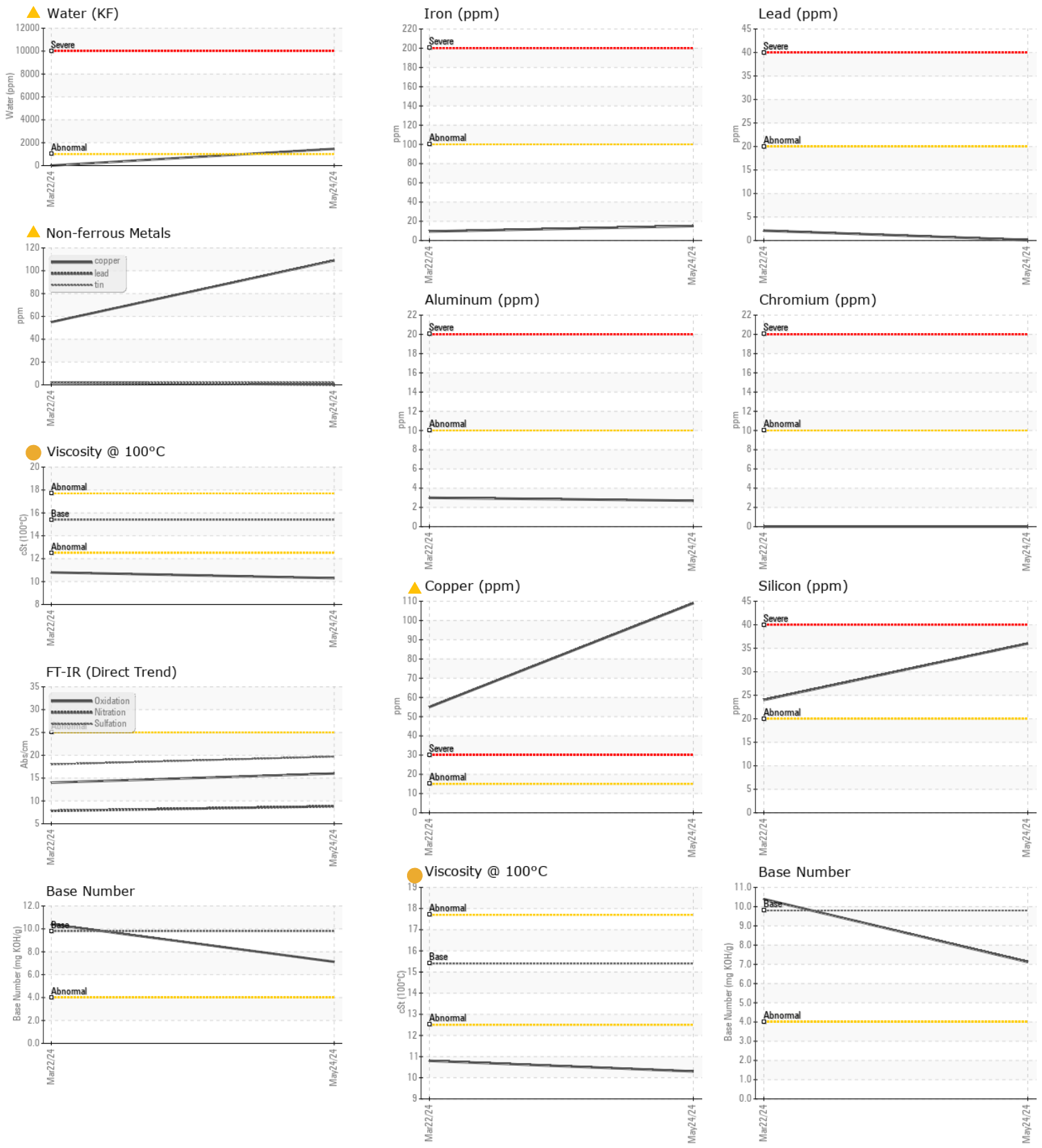
There is a light concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>20	36	24	---
Potassium	ppm	ASTM D5185m	>20	2	5	---
Fuel	%	ASTM D3524	>6.0	<1.0	0.4	---
Water	%	ASTM D6304	>0.1	▲ 0.146	---	---
ppm Water	ppm	ASTM D6304	>1000	▲ 1460	---	---
Glycol	%	*ASTM D2982		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.1	0	---
Nitration	Abs/cm	*ASTM D7624	>20	8.8	7.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.7	18.0	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	LIGHT	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	0.2%	NEG	---

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		3	4	---
Boron	ppm	ASTM D5185m	0	23	68	---
Barium	ppm	ASTM D5185m	0	<1	0	---
Molybdenum	ppm	ASTM D5185m	60	85	81	---
Manganese	ppm	ASTM D5185m	0	3	3	---
Magnesium	ppm	ASTM D5185m	1010	15	14	---
Calcium	ppm	ASTM D5185m	1070	2226	2157	---
Phosphorus	ppm	ASTM D5185m	1150	1014	1025	---
Zinc	ppm	ASTM D5185m	1270	1240	1154	---
Sulfur	ppm	ASTM D5185m	2060	3867	4520	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.0	14.0	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.12	10.39	---
Visc @ 100°C	cSt	ASTM D445	15.4	● 10.3	● 10.8	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0110076 **Received** : 30 May 2024
Lab Number : 06195625 **Tested** : 04 Jun 2024
Unique Number : 11057748 **Diagnosed** : 04 Jun 2024 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: FuelDilution, Glycol, KF, PercentFuel)

WIN Waste Innovations - Shop # - Taunton
 565 WINTHROP ST
 TAUNTON, MA
 US 02780
 Contact: Dave Wilson
 dwilson1@win-waste.com

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)

T:
F: