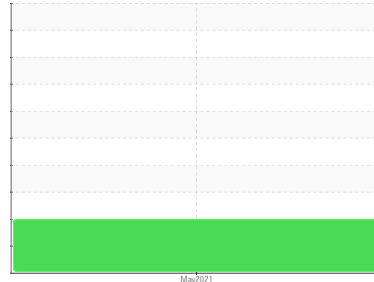


OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Area
Charlestown
Machine Id
313
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)

DIAGNOSIS

▲ Recommendation

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

▲ Wear

The copper level is abnormal. All other component wear rates are normal.

▲ Contamination

Sodium and/or potassium levels are high. Test for glycol is negative.

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			PCA0023117	---	---
Sample Date	Client Info			11 May 2021	---	---
Machine Age	hrs	Client Info		0	---	---
Oil Age	hrs	Client Info		368363	---	---
Oil Changed	Client Info			N/A	---	---
Sample Status				ABNORMAL	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method		>3.0	<1.0	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	28	---	---
Chromium	ppm	ASTM D5185m	>20	2	---	---
Nickel	ppm	ASTM D5185m	>2	<1	---	---
Titanium	ppm	ASTM D5185m	>2	<1	---	---
Silver	ppm	ASTM D5185m	>2	<1	---	---
Aluminum	ppm	ASTM D5185m	>30	13	---	---
Lead	ppm	ASTM D5185m	>30	<1	---	---
Copper	ppm	ASTM D5185m	>30	▲ 51	---	---
Tin	ppm	ASTM D5185m	>15	<1	---	---
Antimony	ppm	ASTM D5185m		<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
Cadmium	ppm	ASTM D5185m		0	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	6	---	---
Barium	ppm	ASTM D5185m	0	0	---	---
Molybdenum	ppm	ASTM D5185m	50	64	---	---
Manganese	ppm	ASTM D5185m	0	<1	---	---
Magnesium	ppm	ASTM D5185m	950	899	---	---
Calcium	ppm	ASTM D5185m	1050	1041	---	---
Phosphorus	ppm	ASTM D5185m	995	904	---	---
Zinc	ppm	ASTM D5185m	1180	1228	---	---
Sulfur	ppm	ASTM D5185m	2600	2121	---	---

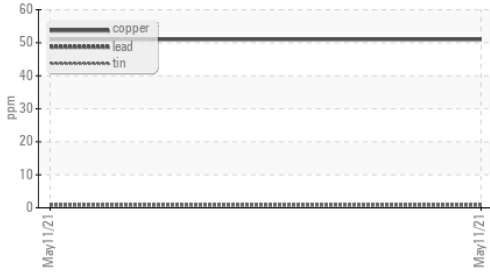
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	4	---	---
Sodium	ppm	ASTM D5185m		48	---	---
Potassium	ppm	ASTM D5185m	>20	▲ 82	---	---
Glycol	%	*ASTM D2982		NEG	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.8	---	---
Nitration	Abs/cm	*ASTM D7624	>20	10.3	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.5	---	---

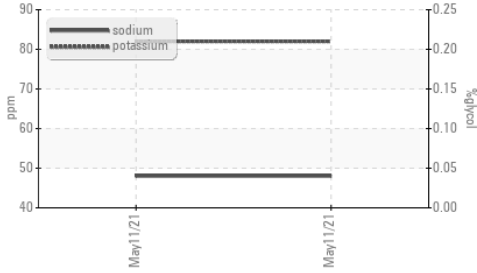
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	18	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		8.11	---	---

OIL ANALYSIS REPORT

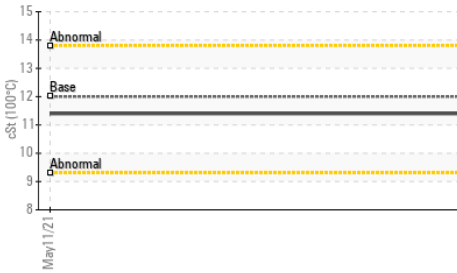
▲ Non-ferrous Metals



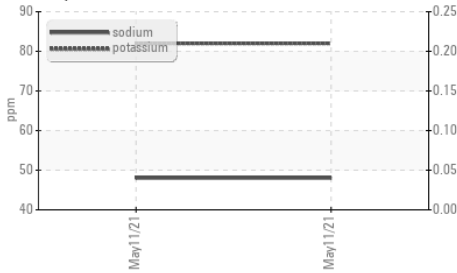
Glycol Contamination



Viscosity @ 100°C



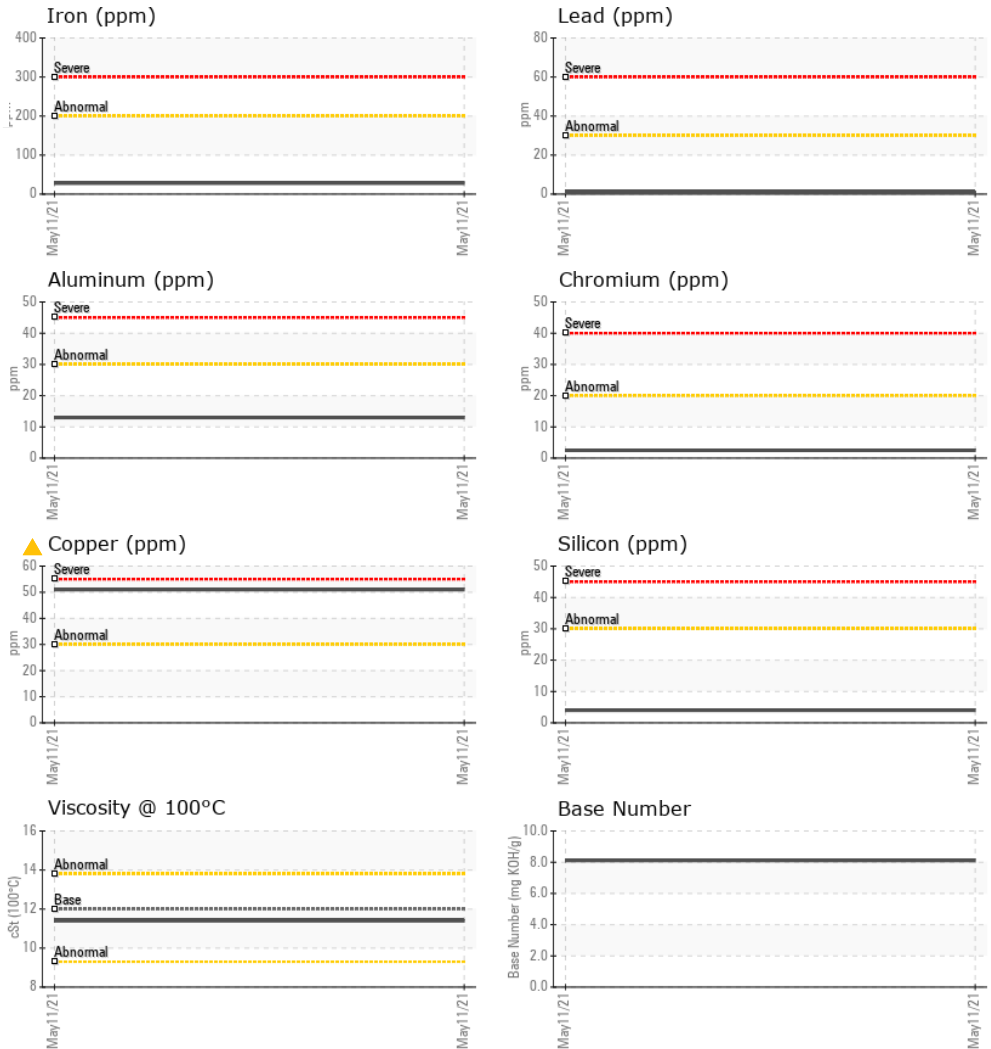
Glycol Contamination



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	---	---
Precipitate	scalar	*Visual	NONE	---	---
Silt	scalar	*Visual	NONE	---	---
Debris	scalar	*Visual	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	---	---
Appearance	scalar	*Visual	NORML	---	---
Odor	scalar	*Visual	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	---	---
Free Water	scalar	*Visual	NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.4	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0023117 **Received** : 15 Jun 2021
Lab Number : 05279924 **Diagnosed** : 17 Jun 2021
Unique Number : 9543857 **Diagnostician** : Jonathan Hester
Test Package : MOB 2 (Additional Tests: Glycol)

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 US 02129
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 BWINTERS@DIVERSIFIEDAUTO.COM
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 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)