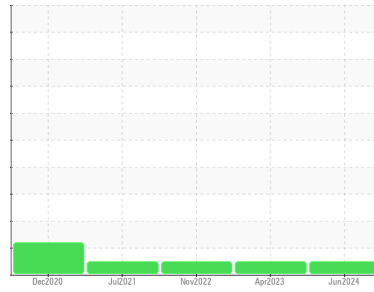


# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**DT671**  
Component  
**Diesel Engine**  
Fluid

**PETRO CANADA DURON SHP 10W30 (39 mls)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

#### 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			<b>PCA0120545</b>	PCA0074056	PCA0080429
Sample Date	Client Info			<b>24 Jun 2024</b>	06 Apr 2023	29 Nov 2022
Machine Age	mls	Client Info		<b>193944</b>	151483	139118
Oil Age	mls	Client Info		<b>42461</b>	12365	35085
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2		<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	<b>25</b>	8	27
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>17</b>	6	9
Lead	ppm	ASTM D5185m	>45	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>85	<b>&lt;1</b>	<1	2
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Antimony	ppm	ASTM D5185m		<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	<b>6</b>	8	1
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m	50	<b>66</b>	60	65
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	950	<b>1021</b>	976	963
Calcium	ppm	ASTM D5185m	1050	<b>1172</b>	1130	1220
Phosphorus	ppm	ASTM D5185m	995	<b>1110</b>	1050	1079
Zinc	ppm	ASTM D5185m	1180	<b>1397</b>	1306	1306
Sulfur	ppm	ASTM D5185m	2600	<b>3332</b>	3652	2737

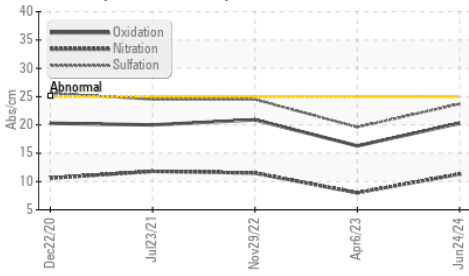
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	<b>6</b>	4	5
Sodium	ppm	ASTM D5185m		<b>1</b>	1	0
Potassium	ppm	ASTM D5185m	>20	<b>23</b>	8	24
Glycol	%	*ASTM D2982		<b>NEG</b>	NEG	NEG

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.7</b>	0.3	0.8
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.3</b>	8.0	11.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.7</b>	19.6	24.5

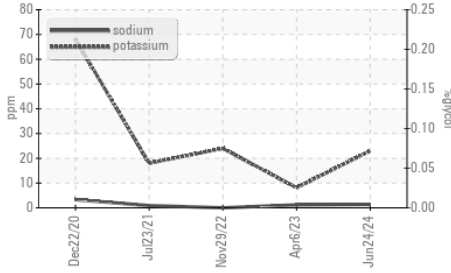
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.3</b>	16.3	20.9
Base Number (BN)	mg KOH/g	ASTM D2896		<b>5.6</b>	7.9	5.2

# OIL ANALYSIS REPORT

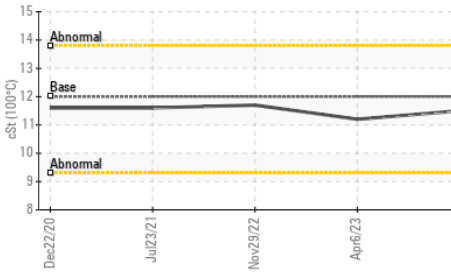
FT-IR (Direct Trend)



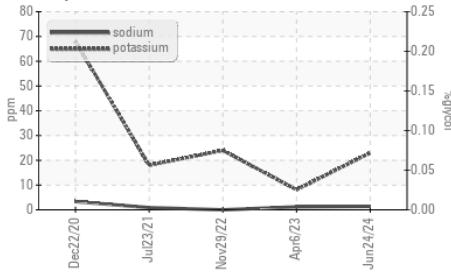
Glycol Contamination



Viscosity @ 100°C



Glycol Contamination

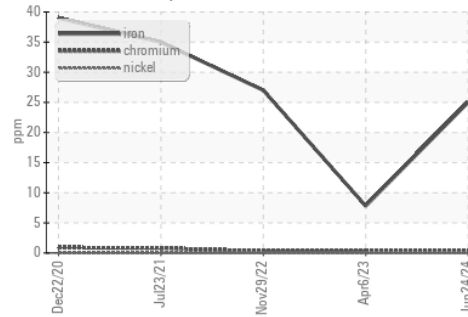


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

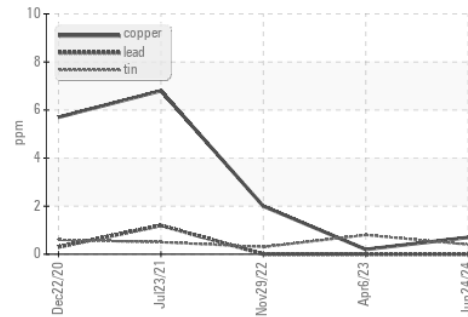
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.5	11.2

## GRAPHS

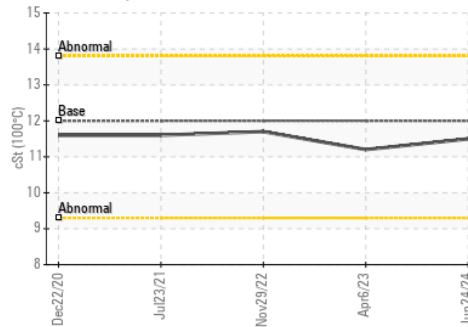
Ferrous Alloys



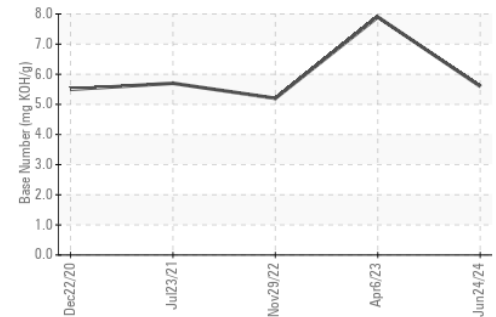
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0120545  
**Lab Number** : 06223121  
**Unique Number** : 11101318  
**Test Package** : FLEET ( Additional Tests: Glycol )

**Received** : 28 Jun 2024  
**Tested** : 03 Jul 2024  
**Diagnosed** : 03 Jul 2024 - Jonathan Hester

**NW WHITE & CO - GREER DIVISION**  
 1060 ROGERS BRIDGE RD  
 DUNCAN, SC  
 US 29334

Contact: Matt Quinlan  
 mquinlan@nwwhite.com  
 T: (864)905-8506

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)