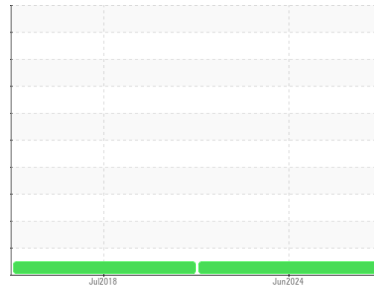


# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id

**410-801**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON SHP 15W40 (5 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### 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>PCA0121241</b>	LWI-R72547	---
Sample Date	Client Info		<b>07 Jun 2024</b>	16 Jul 2018	---
Machine Age	hrs	Client Info	<b>353</b>	178	---
Oil Age	hrs	Client Info	<b>0</b>	41	---
Oil Changed	Client Info		<b>Changed</b>	Changed	---
Sample Status			<b>NORMAL</b>	NORMAL	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>2.1	<b>&lt;1.0</b>	<1.0	---
Water	WC Method	>0.21	<b>NEG</b>	NEG	---
Glycol	WC Method		<b>NEG</b>	NEG	---

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>51	<b>26</b>	10	---
Chromium	ppm	ASTM D5185m	>11	<b>1</b>	0	---
Nickel	ppm	ASTM D5185m	>5	<b>1</b>	0	---
Titanium	ppm	ASTM D5185m		<b>1</b>	0	---
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	---
Aluminum	ppm	ASTM D5185m	>31	<b>3</b>	0	---
Lead	ppm	ASTM D5185m	>26	<b>&lt;1</b>	0	---
Copper	ppm	ASTM D5185m	>26	<b>2</b>	0	---
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	---
Antimony	ppm	ASTM D5185m		<b>---</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	0	<b>7</b>	75	---
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	60	<b>60</b>	2	---
Manganese	ppm	ASTM D5185m	0	<b>1</b>	0	---
Magnesium	ppm	ASTM D5185m	1010	<b>958</b>	16	---
Calcium	ppm	ASTM D5185m	1070	<b>1070</b>	2326	---
Phosphorus	ppm	ASTM D5185m	1150	<b>1011</b>	992	---
Zinc	ppm	ASTM D5185m	1270	<b>1239</b>	1106	---
Sulfur	ppm	ASTM D5185m	2060	<b>3031</b>	---	---
Lithium	ppm	ASTM D5185m		<b>---</b>	0	---

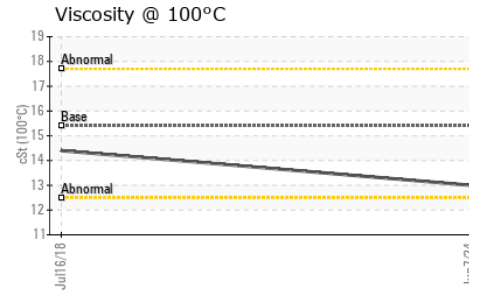
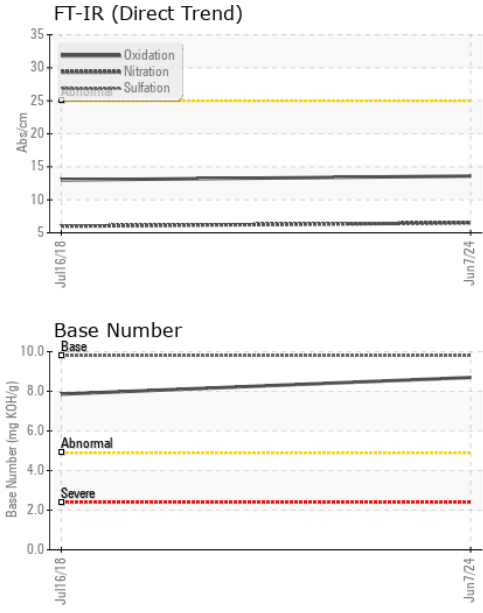
## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>22	<b>6</b>	4	---
Sodium	ppm	ASTM D5185m	>31	<b>2</b>	2	---
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	0	---

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.5</b>	6	---
Sulfation	Abs./1mm	*ASTM D7415	>30	<b>17.4</b>	---	---

# OIL ANALYSIS REPORT

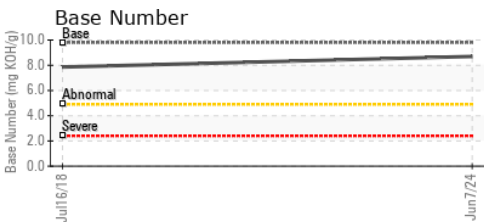
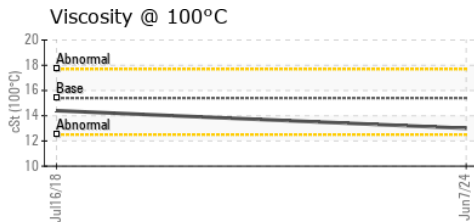
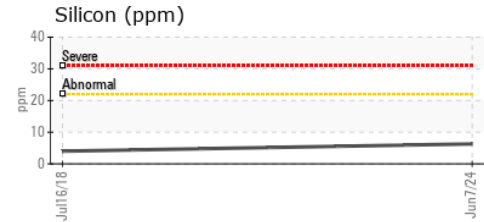
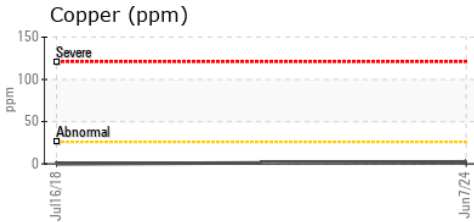
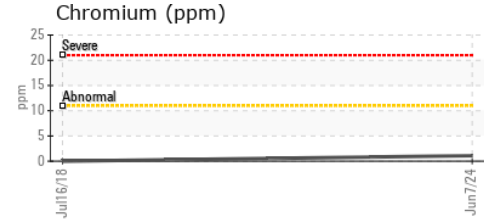
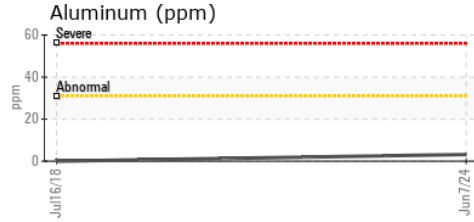
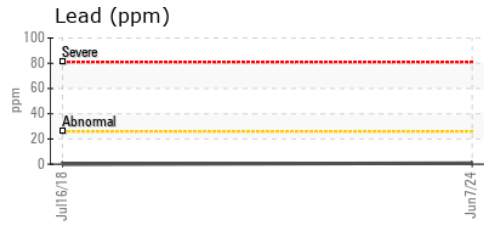
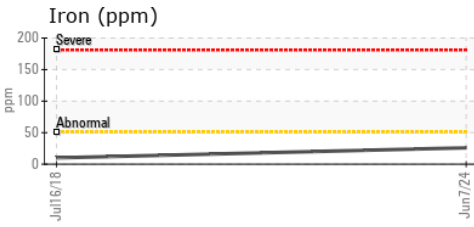


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	*ASTM D7414	>25	<b>13.6</b>	13	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.7</b>	7.86	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.21	<b>NEG</b>	---	---
Free Water	scalar	*Visual		<b>NEG</b>	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.0</b>	14.4	---

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0121241      **Received** : 08 Jul 2024  
**Lab Number** : 06229922      **Tested** : 09 Jul 2024  
**Unique Number** : 11113415      **Diagnosed** : 09 Jul 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**GE MARSHALL EXCAVATION**  
 1351 JOLIET RD  
 VALPARAISO, IN  
 US 46385  
 Contact: MARK STEFFEL  
 mark.steffel@gemarshall.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)