



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**EX-13**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON HP 15W40 (--- GAL)**

**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		<b>KFS0006090</b>	KFS0003896	---
Sample Date		Client Info		<b>09 May 2024</b>	22 Jun 2023	---
Machine Age	hrs	Client Info		<b>5889</b>	4865	---
Oil Age	hrs	Client Info		<b>1024</b>	0	---
Filter Age	hrs	Client Info		<b>1024</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>50</b>	23	---
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>6</b>	3	---
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	---
Copper	ppm	ASTM D5185m	>330	<b>2</b>	2	---
Tin	ppm	ASTM D5185m	>15	<b>1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

**CONTAMINATION**

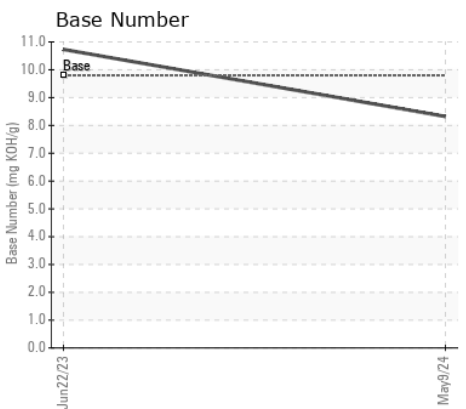
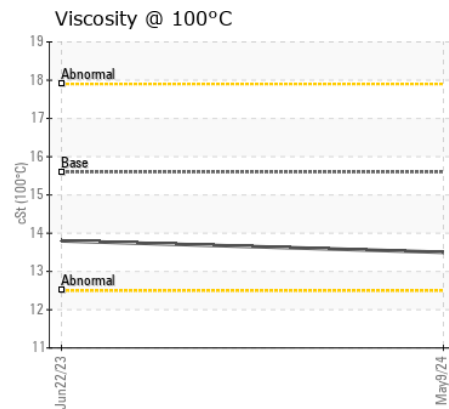
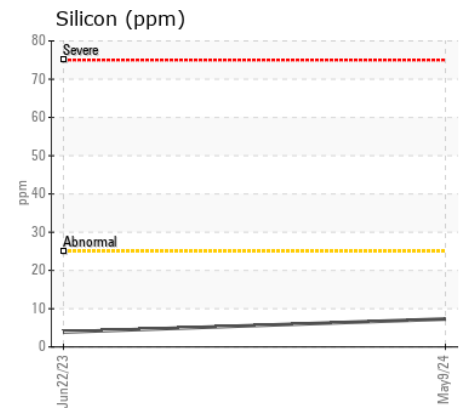
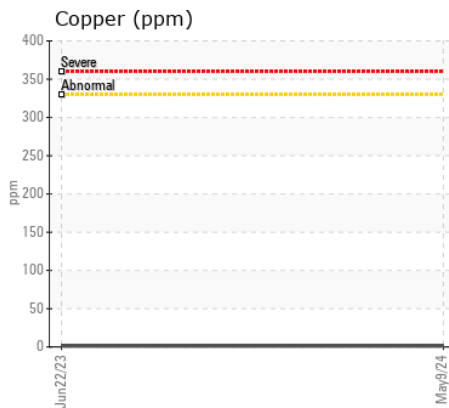
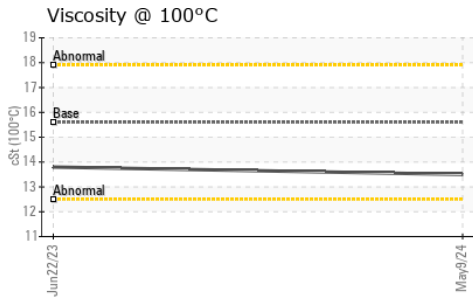
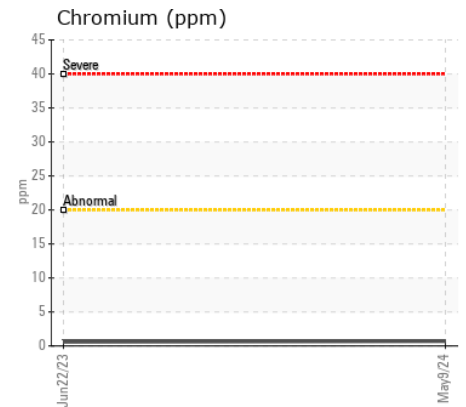
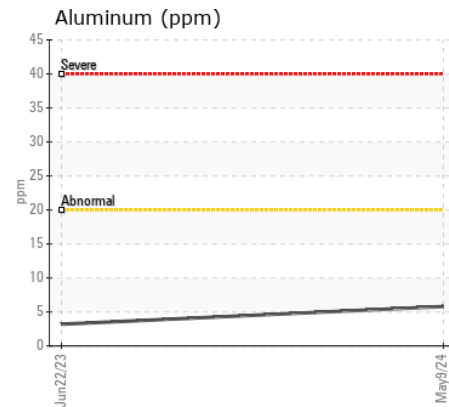
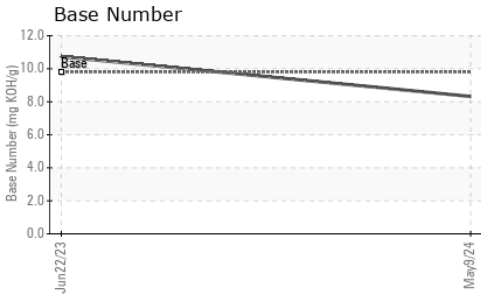
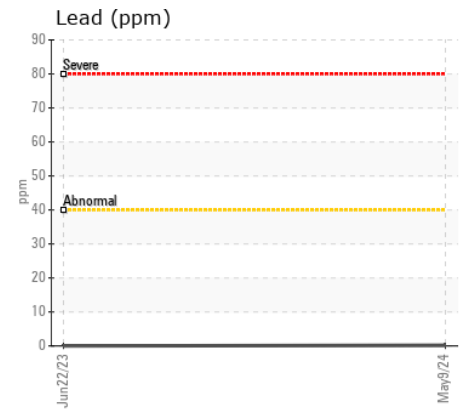
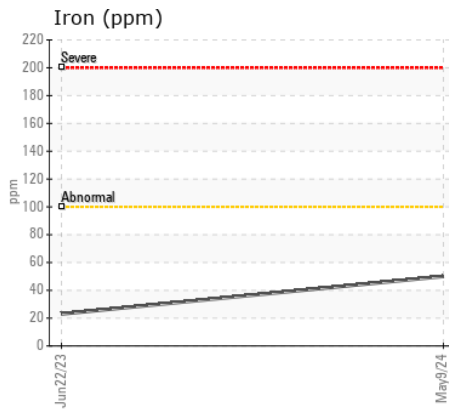
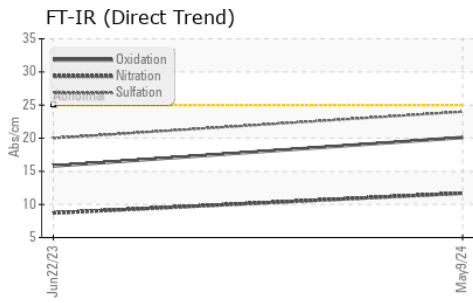
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>7</b>	4	---
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>3	<b>1.4</b>	0.7	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.7</b>	8.7	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.0</b>	20.0	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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		<b>6</b>	4	---
Boron	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Barium	ppm	ASTM D5185m		<b>1</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>65</b>	66	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m		<b>974</b>	1021	---
Calcium	ppm	ASTM D5185m		<b>1120</b>	1220	---
Phosphorus	ppm	ASTM D5185m		<b>1055</b>	1086	---
Zinc	ppm	ASTM D5185m		<b>1283</b>	1364	---
Sulfur	ppm	ASTM D5185m		<b>2913</b>	3760	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.1</b>	15.8	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.32</b>	10.73	---
Visc @ 100°C	cSt	ASTM D445	15.6	<b>13.5</b>	13.8	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KFS0006090  
**Lab Number** : 06177880  
**Unique Number** : 11029206  
**Test Package** : MOB 2

**Received** : 13 May 2024  
**Tested** : 14 May 2024  
**Diagnosed** : 14 May 2024 - Wes Davis

**HARNES LLLC**  
 855 N JAMES CAMPBELL BLVD  
 COLUMBIA, TN  
 US 38401  
 Contact: BEN HARNES  
 ben@slectharness.com  
 T: (615)733-4480  
 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)