



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**INTERNATIONAL 52966**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SAE 10W30 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0930266	---	---
Sample Date		Client Info		03 Jun 2024	---	---
Machine Age	mls	Client Info		48246	---	---
Oil Age	mls	Client Info		31709	---	---
Filter Age	mls	Client Info		31709	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>100	32	---	---
Chromium	ppm	ASTM D5185(m)	>20	2	---	---
Nickel	ppm	ASTM D5185(m)	>4	<1	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)	>3	<1	---	---
Aluminum	ppm	ASTM D5185(m)	>20	19	---	---
Lead	ppm	ASTM D5185(m)	>40	7	---	---
Copper	ppm	ASTM D5185(m)	>330	10	---	---
Tin	ppm	ASTM D5185(m)	>15	2	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	VLITE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

## CONTAMINATION

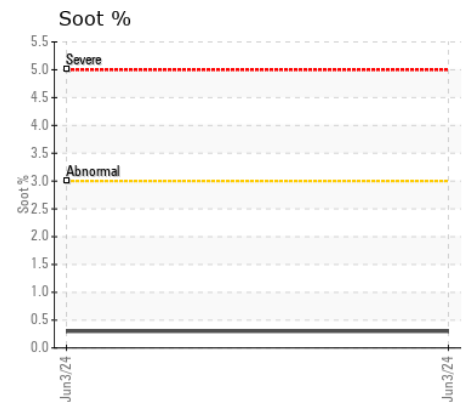
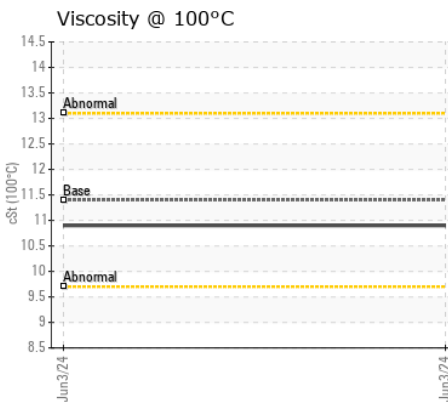
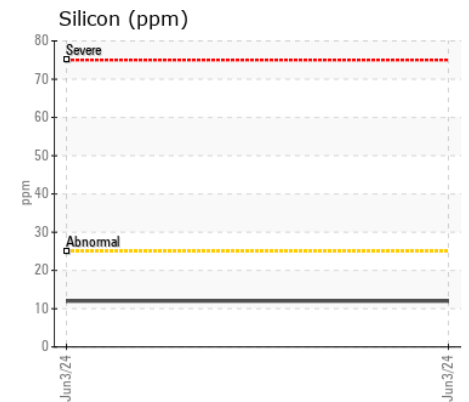
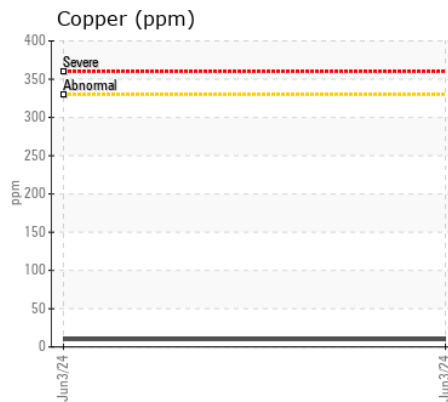
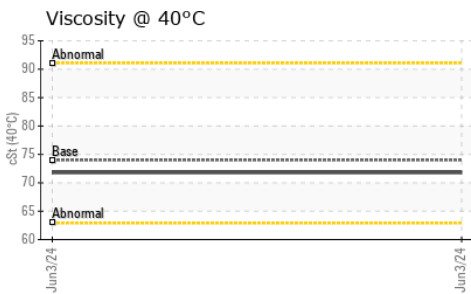
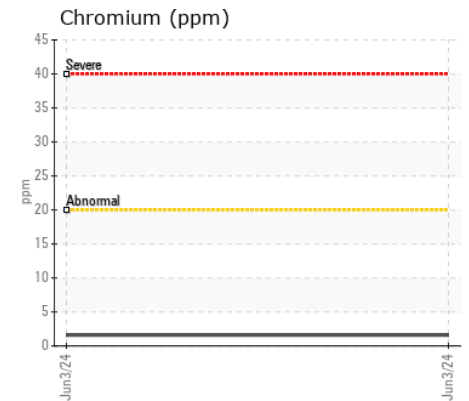
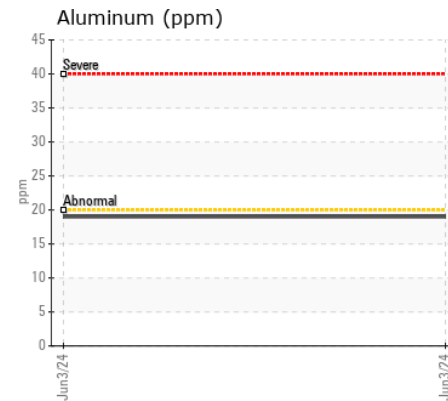
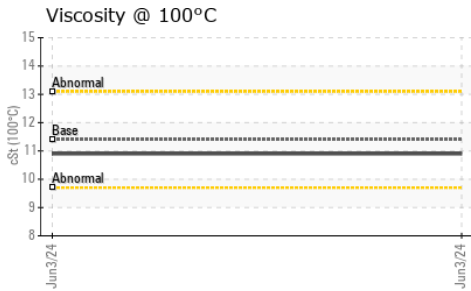
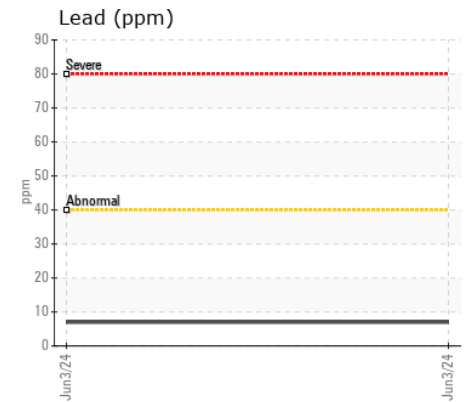
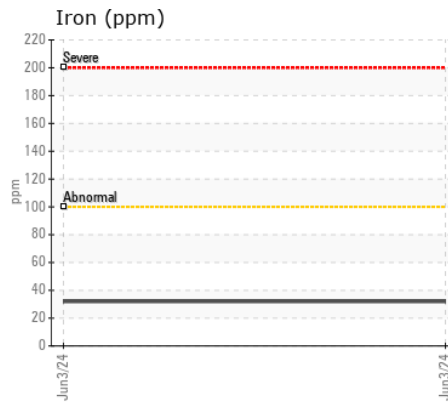
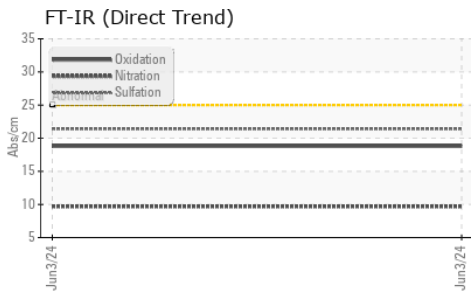
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	12	---	---
Potassium	ppm	ASTM D5185(m)	>20	48	---	---
Fuel		WC Method	>2.0	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*	>3	0.3	---	---
Nitration	Abs/cm	ASTM D7624*	>20	9.7	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.4	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---

## FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		2	---	---
Boron	ppm	ASTM D5185(m)	1	8	---	---
Barium	ppm	ASTM D5185(m)	1	<1	---	---
Molybdenum	ppm	ASTM D5185(m)	1	62	---	---
Manganese	ppm	ASTM D5185(m)	1	2	---	---
Magnesium	ppm	ASTM D5185(m)	10	933	---	---
Calcium	ppm	ASTM D5185(m)	2942	1184	---	---
Phosphorus	ppm	ASTM D5185(m)	1102	970	---	---
Zinc	ppm	ASTM D5185(m)	1351	1225	---	---
Sulfur	ppm	ASTM D5185(m)	3903	2320	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.8	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	74.0	71.8	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	11.4	10.9	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	146	141	---	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0930266 **Received** : 03 Jul 2024  
**Lab Number** : 02645175 **Tested** : 04 Jul 2024  
**Unique Number** : 5802714 **Diagnosed** : 04 Jul 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI, Visual )

**MANITOU LIN TRANSPORT**  
 161 MAIN STREET  
 THUNDER BAY, ON  
 CA P7B 6S5  
 Contact: Ivan Brady  
 ibrady@manitoulintransport.com  
 T: (807)345-6501  
 F: (807)345-6731

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.