



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**WESTERN STAR R743**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 10W30 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0081822	---	---
Sample Date		Client Info		07 May 2024	---	---
Machine Age	kms	Client Info		22331	---	---
Oil Age	kms	Client Info		22331	---	---
Filter Age	kms	Client Info		22331	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

## WEAR

Metal levels are typical for a components first oil change.

Iron	ppm	ASTM D5185(m)	>200	26	---	---
Chromium	ppm	ASTM D5185(m)	>20	<1	---	---
Nickel	ppm	ASTM D5185(m)	>2	2	---	---
Titanium	ppm	ASTM D5185(m)	>2	0	---	---
Silver	ppm	ASTM D5185(m)	>2	<1	---	---
Aluminum	ppm	ASTM D5185(m)	>30	6	---	---
Lead	ppm	ASTM D5185(m)	>30	10	---	---
Copper	ppm	ASTM D5185(m)	>30	414	---	---
Tin	ppm	ASTM D5185(m)	>15	13	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	VLITE	---	---

## CONTAMINATION

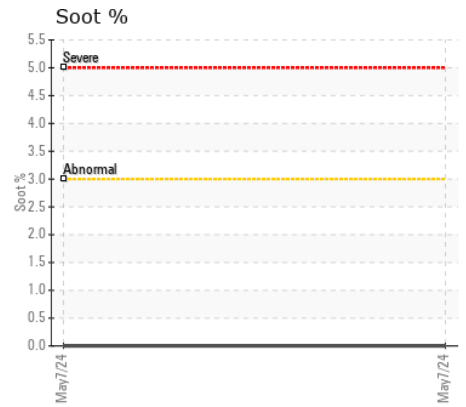
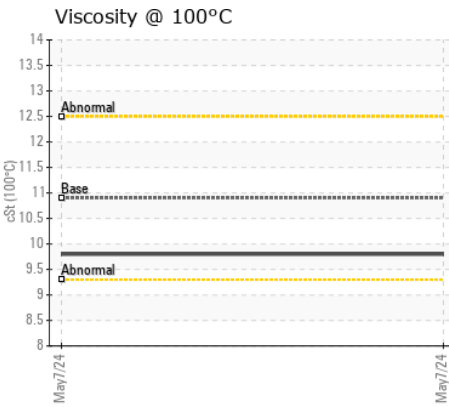
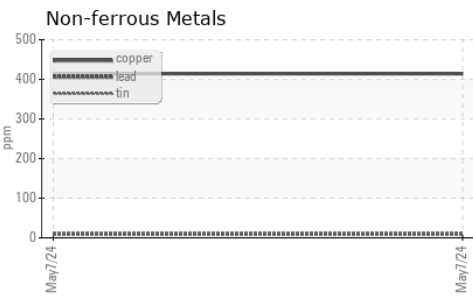
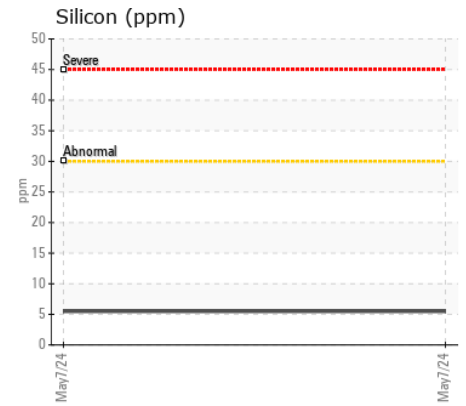
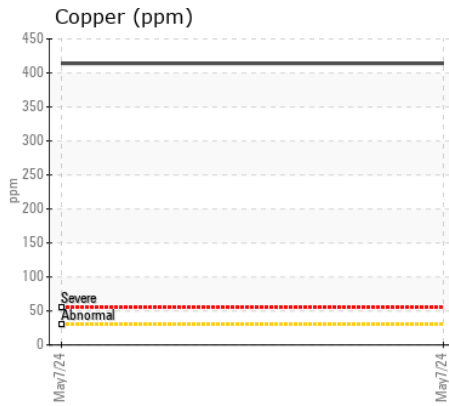
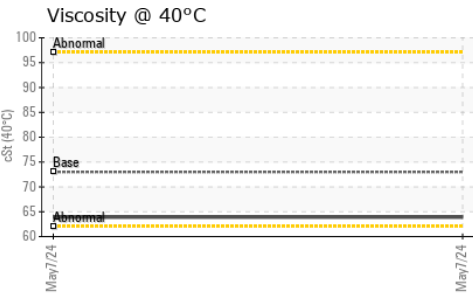
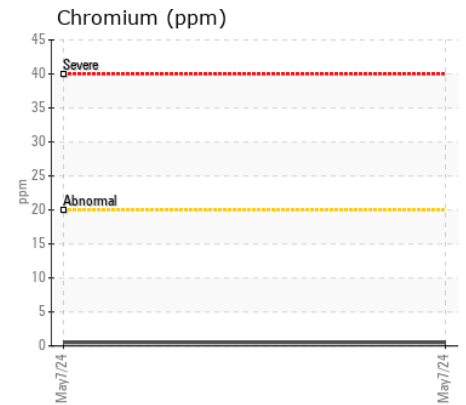
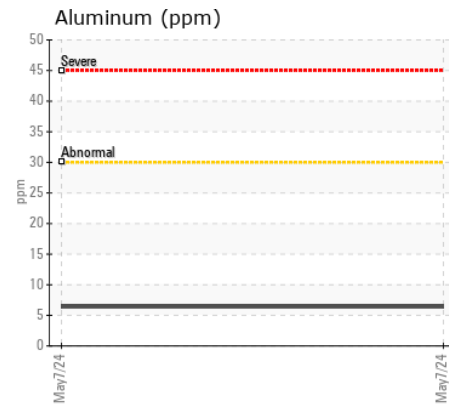
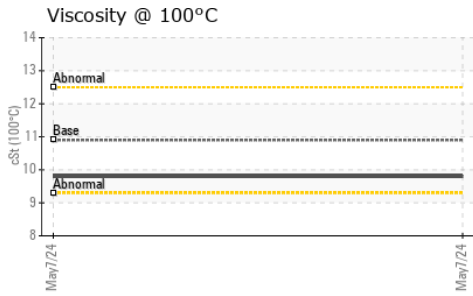
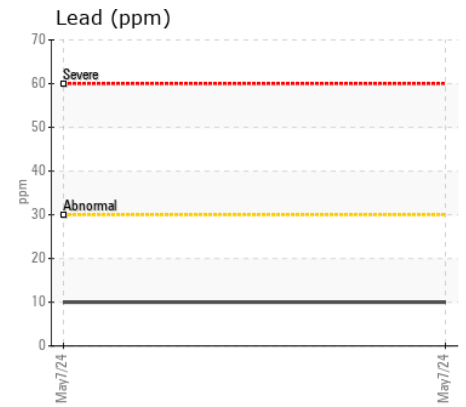
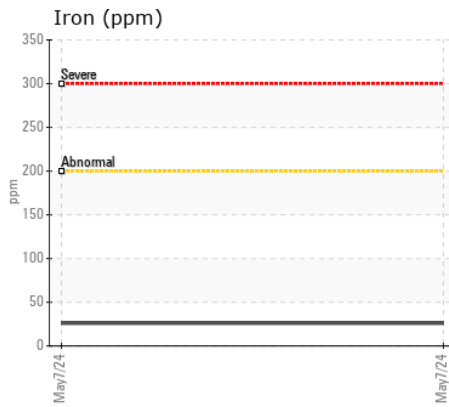
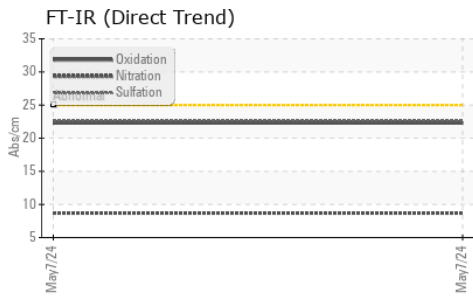
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>30	6	---	---
Potassium	ppm	ASTM D5185(m)	>20	14	---	---
Fuel		WC Method	>3.0	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*	>3	0	---	---
Nitration	Abs/cm	ASTM D7624*	>20	8.7	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.6	---	---
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)		4	---	---
Boron	ppm	ASTM D5185(m)	250	39	---	---
Barium	ppm	ASTM D5185(m)	10	<1	---	---
Molybdenum	ppm	ASTM D5185(m)	100	41	---	---
Manganese	ppm	ASTM D5185(m)		2	---	---
Magnesium	ppm	ASTM D5185(m)	450	542	---	---
Calcium	ppm	ASTM D5185(m)	3000	1688	---	---
Phosphorus	ppm	ASTM D5185(m)	1150	725	---	---
Zinc	ppm	ASTM D5185(m)	1350	863	---	---
Sulfur	ppm	ASTM D5185(m)	4250	1773	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	22.3	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	73	63.9	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	9.8	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	138	136	---	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0081822 **Received** : 17 May 2024  
**Lab Number** : 02636278 **Tested** : 17 May 2024  
**Unique Number** : 5785440 **Diagnosed** : 21 May 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI, Visual )

**RENEWABLE FOREST PRODUCTS**  
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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.