

Machine Id
WESTERN STAR R724
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0081823	PC0082818	PC0082859
Sample Date		Client Info		21 Feb 2024	12 Dec 2023	15 Sep 2023
Machine Age	kms	Client Info		720050	696036	665394
Oil Age	kms	Client Info		24014	30642	35898
Filter Age	kms	Client Info		24014	30642	35898
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	19	27	40
Chromium	ppm	ASTM D5185(m)	>6	<1	1	1
Nickel	ppm	ASTM D5185(m)	>3	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>50	9	8	5
Lead	ppm	ASTM D5185(m)	>10	0	<1	<1
Copper	ppm	ASTM D5185(m)	>50	6	6	5
Tin	ppm	ASTM D5185(m)	>6	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	VLITE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	VLITE	---

CONTAMINATION

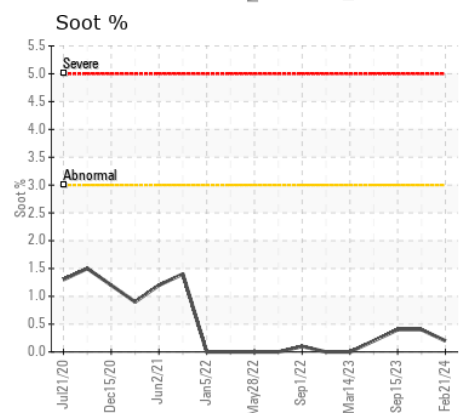
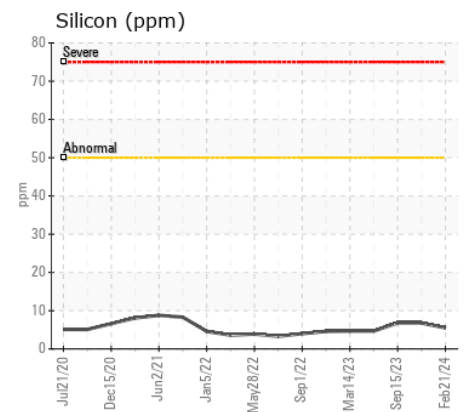
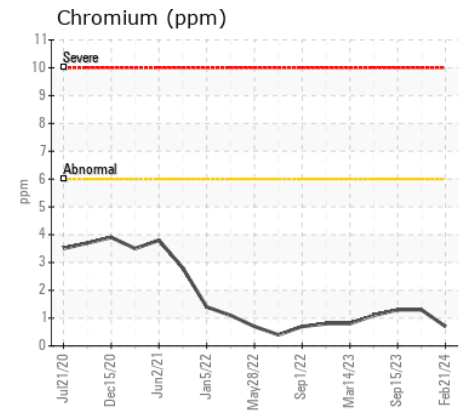
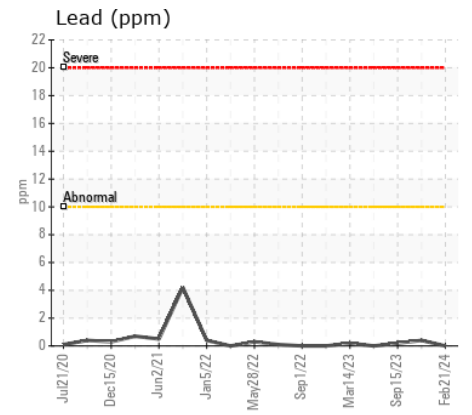
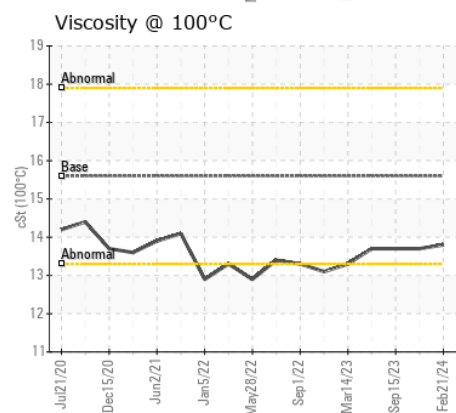
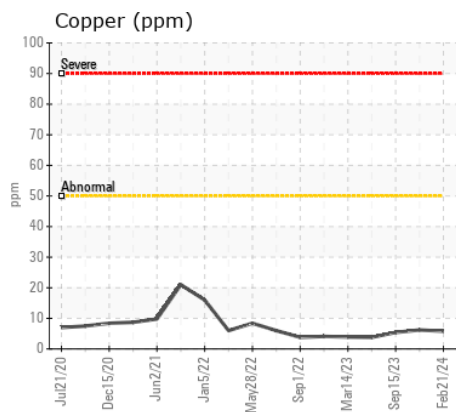
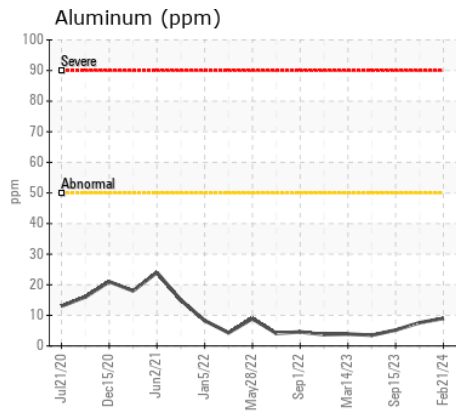
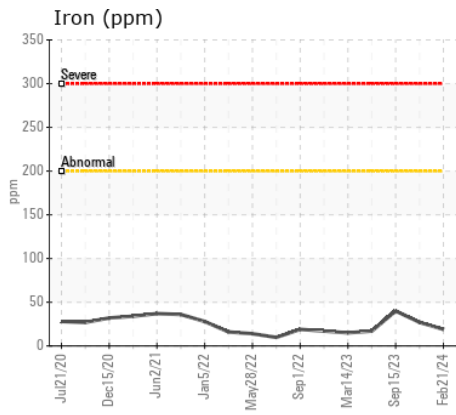
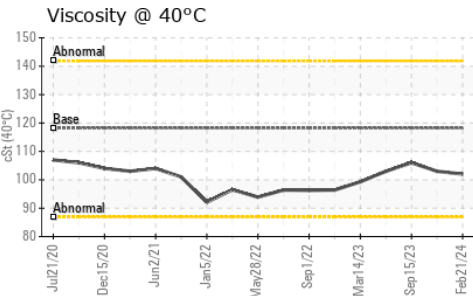
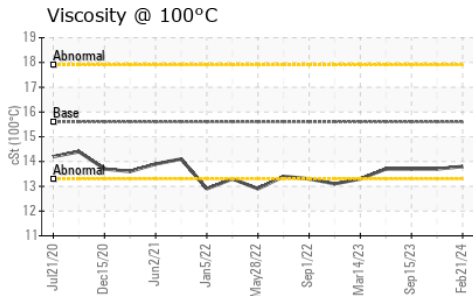
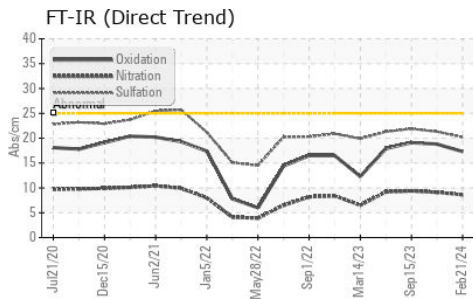
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>50	6	7	7
Potassium	ppm	ASTM D5185(m)	>20	<1	1	<1
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.2	0.4	0.4
Nitration	Abs/cm	ASTM D7624*	>20	8.6	9.1	9.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.2	21.3	21.9
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	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		1	2	2
Boron	ppm	ASTM D5185(m)	0	1	3	3
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	61	64	64
Manganese	ppm	ASTM D5185(m)	0	<1	0	0
Magnesium	ppm	ASTM D5185(m)	1010	982	999	1014
Calcium	ppm	ASTM D5185(m)	1070	1090	1122	1110
Phosphorus	ppm	ASTM D5185(m)	1150	958	994	1002
Zinc	ppm	ASTM D5185(m)	1270	1188	1253	1240
Sulfur	ppm	ASTM D5185(m)	2060	2097	2254	2060
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.3	18.8	19.1
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	102	103	106
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	13.8	13.7	13.7
Viscosity Index (VI)	Scale	ASTM D2270*	139	136	133	128



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0081823
Lab Number : 02636285
Unique Number : 5785447
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.*