



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 9470RT
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0741955	WC0741941	WC0668722
Sample Date		Client Info		01 Feb 2024	20 Dec 2022	28 Apr 2022
Machine Age	hrs	Client Info		5509	5350	5130
Oil Age	hrs	Client Info		159	224	125
Filter Age	hrs	Client Info		159	224	125
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>51	18	▲ 77	▲ 72
Chromium	ppm	ASTM D5185(m)	>11	<1	2	<1
Nickel	ppm	ASTM D5185(m)	>5	1	3	2
Titanium	ppm	ASTM D5185(m)		0	<1	0
Silver	ppm	ASTM D5185(m)	>3	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>31	5	22	14
Lead	ppm	ASTM D5185(m)	>26	3	5	4
Copper	ppm	ASTM D5185(m)	>26	42	32	21
Tin	ppm	ASTM D5185(m)	>4	<1	2	1
Vanadium	ppm	ASTM D5185(m)		0	<1	<1

CONTAMINATION

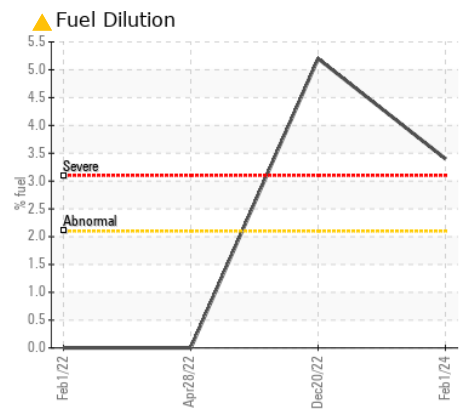
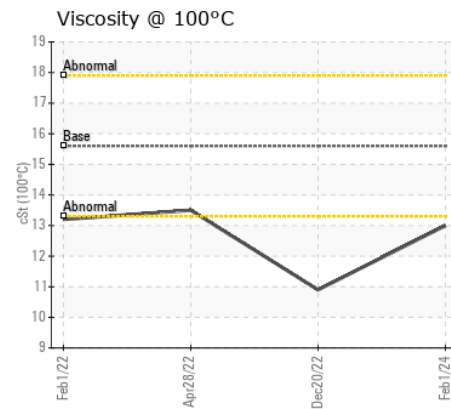
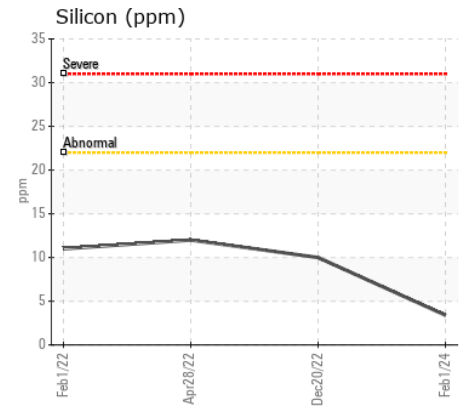
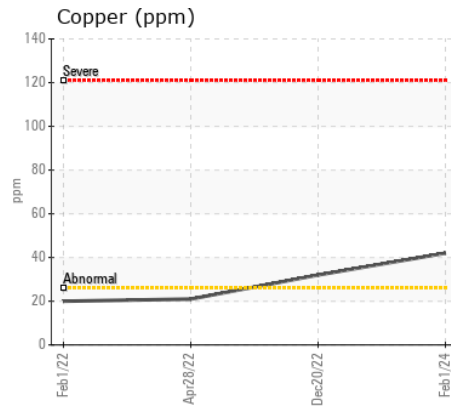
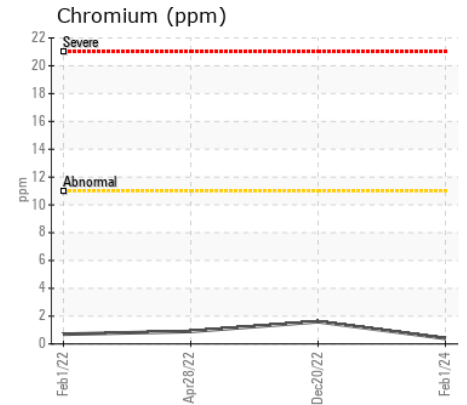
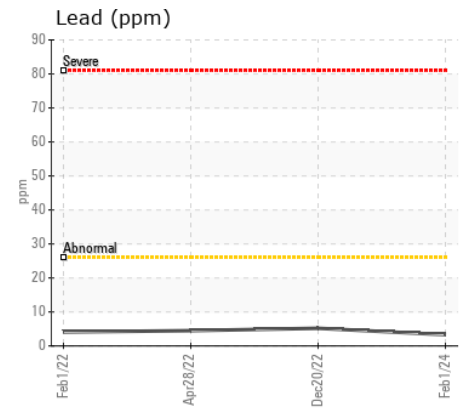
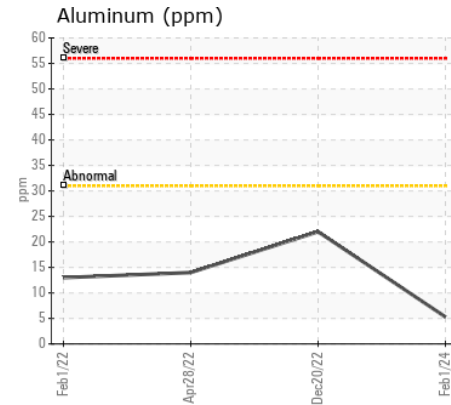
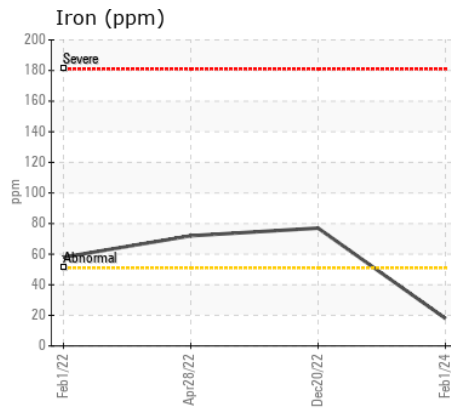
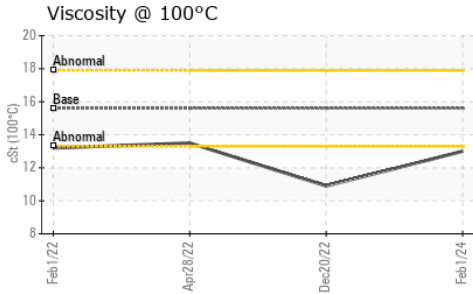
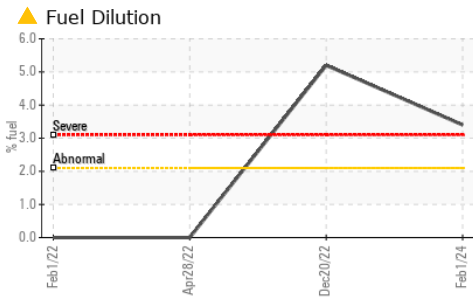
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>22	3	10	12
Potassium	ppm	ASTM D5185(m)	>20	6	32	26
Fuel	%	ASTM D7593*	>2.1	▲ 3.4	▲ 5.2	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	NEG
Soot %	%	ASTM D7844*	>3	0	0.2	0
Nitration	Abs/cm	ASTM D7624*	>20	6.2	10.9	8.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.3	24.0	22.5
Emulsified Water	scalar	Visual*	>0.21	NEG	.2%	NEG

FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)	>31	4	10	8
Boron	ppm	ASTM D5185(m)	0	10	124	220
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	72	241	246
Manganese	ppm	ASTM D5185(m)	0	0	1	1
Magnesium	ppm	ASTM D5185(m)	1010	920	818	867
Calcium	ppm	ASTM D5185(m)	1070	1039	1380	1344
Phosphorus	ppm	ASTM D5185(m)	1150	984	871	912
Zinc	ppm	ASTM D5185(m)	1270	1104	962	1016
Sulfur	ppm	ASTM D5185(m)	2060	2686	2496	2587
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.4	17.5	16.5
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	13.0	▲ 10.9	13.5



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0741955 **Received** : 08 Mar 2024
Lab Number : 02620772 **Tested** : 11 Mar 2024
Unique Number : 5737882 **Diagnosed** : 11 Mar 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: PercentFuel)

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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.