



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
54000 series
 Machine Id
Navistar 54156
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (40 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0915462	WC0864028	WC0828174
Sample Date		Client Info		17 May 2024	10 Oct 2023	17 Jul 2023
Machine Age	kms	Client Info		65000	760620	1175595
Oil Age	kms	Client Info		29701	30676	30193
Filter Age	kms	Client Info		29701	30676	30193
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>90	31	15	17
Chromium	ppm	ASTM D5185(m)	>20	3	<1	1
Nickel	ppm	ASTM D5185(m)	>2	<1	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	38	2	3
Lead	ppm	ASTM D5185(m)	>40	1	3	4
Copper	ppm	ASTM D5185(m)	>330	4	<1	<1
Tin	ppm	ASTM D5185(m)	>15	1	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

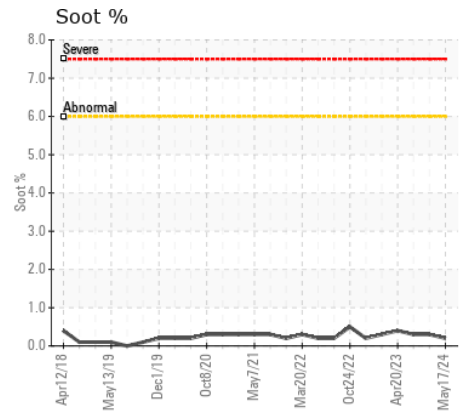
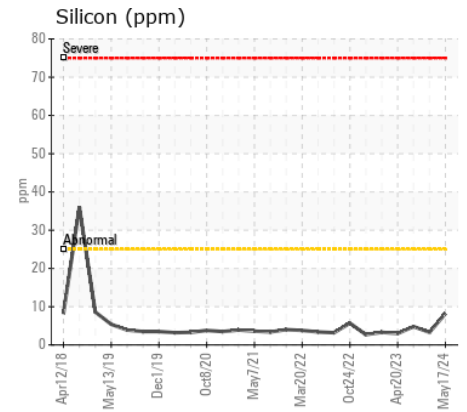
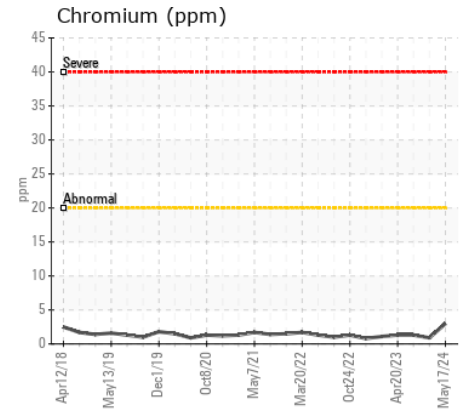
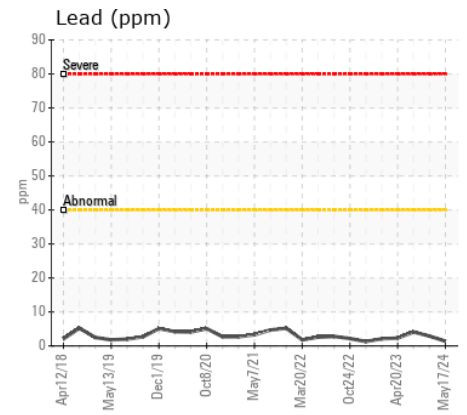
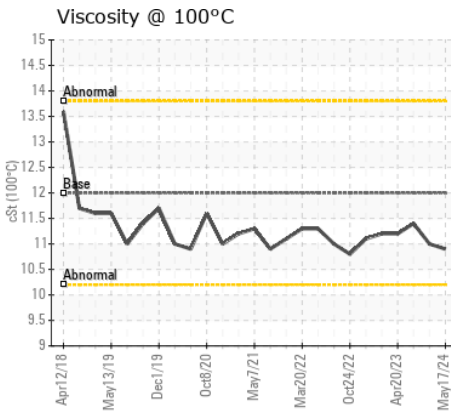
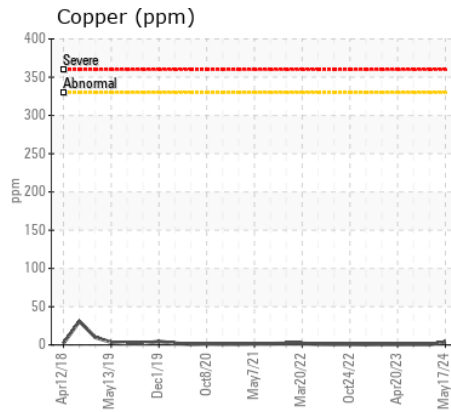
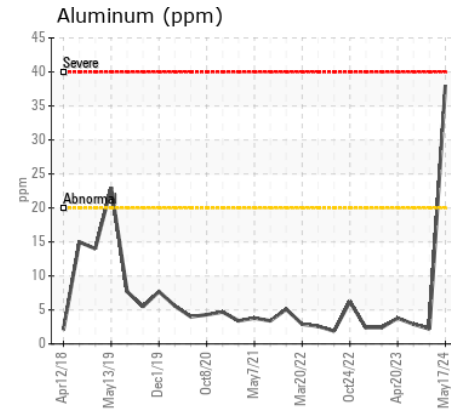
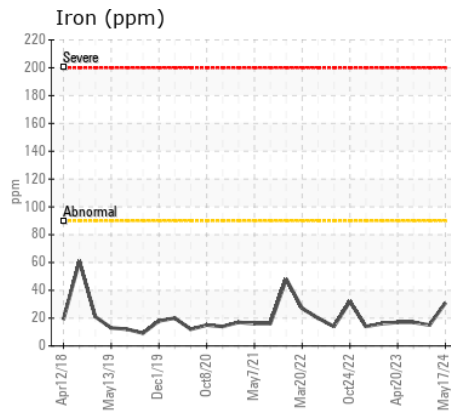
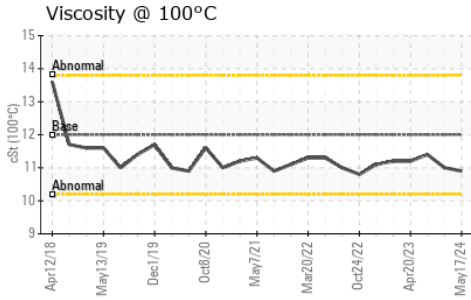
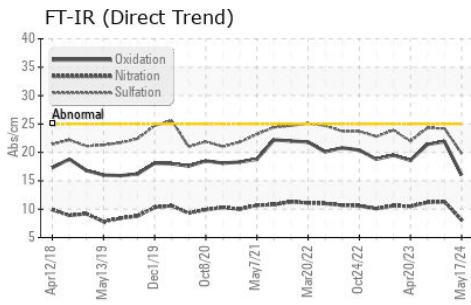
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	8	3	5
Potassium	ppm	ASTM D5185(m)	>20	89	2	2
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*	>6	0.2	0.3	0.3
Nitration	Abs/cm	ASTM D7624*	>20	8.1	11.3	11.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.8	24.2	24.3
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	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)		2	48	18
Boron	ppm	ASTM D5185(m)	2	8	4	2
Barium	ppm	ASTM D5185(m)	0	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	50	62	66	62
Manganese	ppm	ASTM D5185(m)	0	1	0	<1
Magnesium	ppm	ASTM D5185(m)	950	950	1010	1026
Calcium	ppm	ASTM D5185(m)	1050	1157	1155	1096
Phosphorus	ppm	ASTM D5185(m)	995	992	1012	1096
Zinc	ppm	ASTM D5185(m)	1180	1224	1277	1247
Sulfur	ppm	ASTM D5185(m)	2600	2396	2533	2481
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.0	21.9	21.4
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	10.9	11.0	11.4



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0915462 **Received** : 06 Jun 2024
Lab Number : 02640145 **Tested** : 06 Jun 2024
Unique Number : 5789307 **Diagnosed** : 06 Jun 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: Visual)

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.

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