MOB II

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Machine Id
KENWORTH 4047
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (--- LTR)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

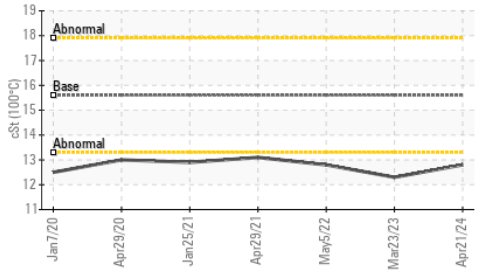
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Light fuel dilution occurring.

FLUID CONDITION

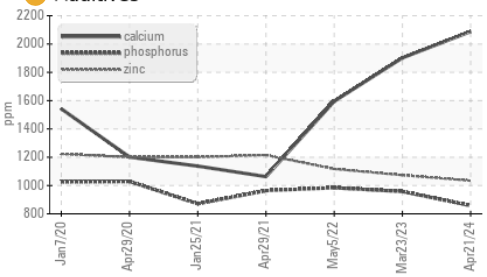
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**WC0895857**	WC0777326	WC0702348
Sample Date		Client Info		**21 Apr 2024**	23 Mar 2023	05 May 2022
Machine Age	kms	Client Info		**101095**	77344	59613
Oil Age	kms	Client Info		**23751**	18000	6000
Filter Age	kms	Client Info		**23751**	18000	6000
Oil Changed		Client Info		**Changed**	Changed	Changed
Filter Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**ABNORMAL**	ABNORMAL	ATTENTION
Iron	ppm	ASTM D5185(m)	>100	**49**	29	13
Chromium	ppm	ASTM D5185(m)	>20	**1**	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	**0**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	<1	0
Silver	ppm	ASTM D5185(m)	>3	**0**	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	**5**	6	3
Lead	ppm	ASTM D5185(m)	>40	**0**	<1	<1
Copper	ppm	ASTM D5185(m)	>330	**4**	4	2
Tin	ppm	ASTM D5185(m)	>15	**0**	<1	<1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Silicon	ppm	ASTM D5185(m)	>25	**7**	6	4
Potassium	ppm	ASTM D5185(m)	>20	**10**	13	6
Fuel	%	ASTM D7593*	>5	▲ **3.3**	▲ 2.8	▲ 2.5
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG
Soot %	%	ASTM D7844*	>3	**1**	0.5	0.1
Nitration	Abs/cm	ASTM D7624*	>20	**13.1**	10.6	8.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	**28.3**	24.7	20.5
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Sodium	ppm	ASTM D5185(m)		**3**	2	1
Boron	ppm	ASTM D5185(m)	0	**5**	8	14
Barium	ppm	ASTM D5185(m)	0	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	60	● **15**	32	33
Manganese	ppm	ASTM D5185(m)	0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	● **161**	● 375	● 428
Calcium	ppm	ASTM D5185(m)	1070	● **2088**	● 1902	● 1595
Phosphorus	ppm	ASTM D5185(m)	1150	**858**	958	984
Zinc	ppm	ASTM D5185(m)	1270	**1034**	1073	1117
Sulfur	ppm	ASTM D5185(m)	2060	**2725**	2839	2874
Oxidation	Abs/.1mm	ASTM D7414*	>25	**22.7**	18.4	14.2
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	**4.32**	4.52	7.17
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	▲ **12.8**	▲ 12.3	12.8

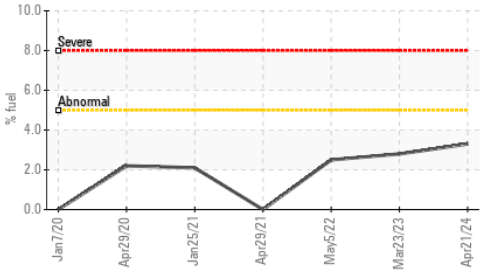
Viscosity @ 100°C



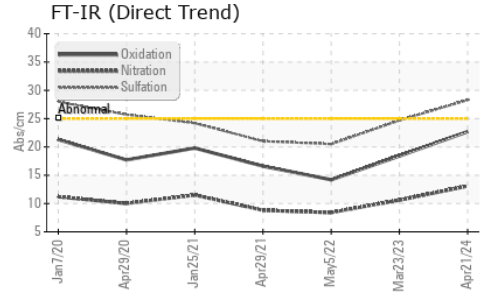
Additives



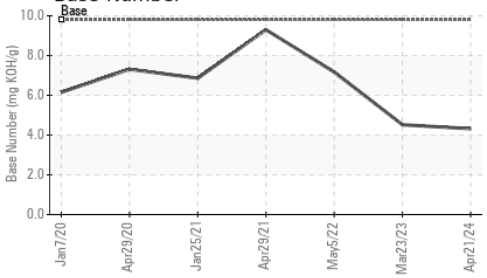
Fuel Dilution



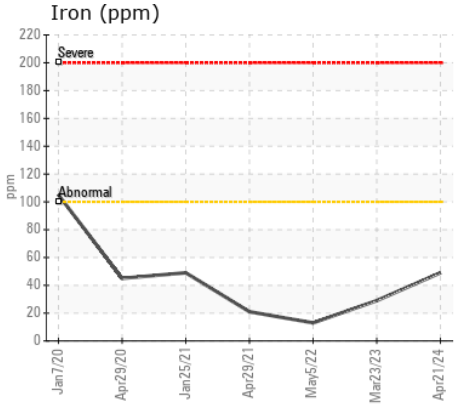
FT-IR (Direct Trend)



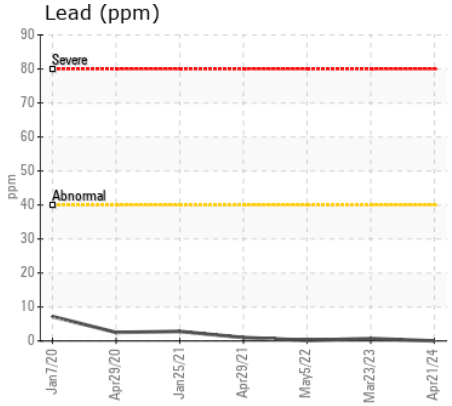
Base Number



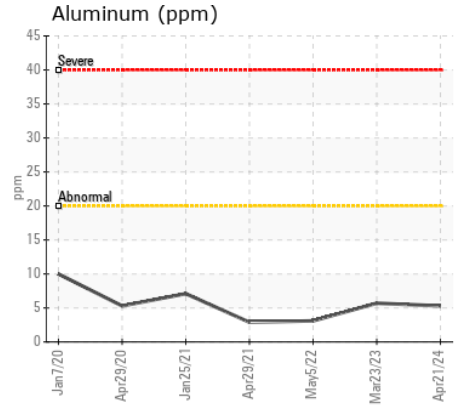
Iron (ppm)



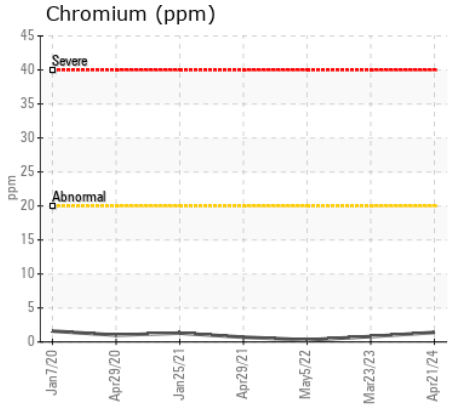
Lead (ppm)



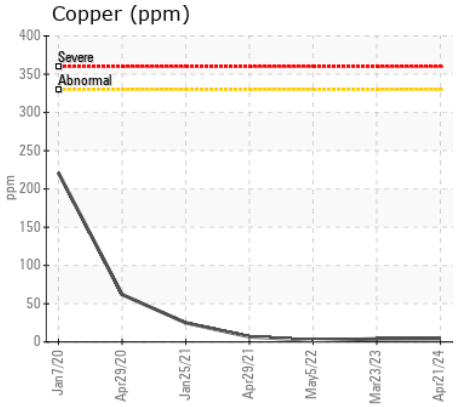
Aluminum (ppm)



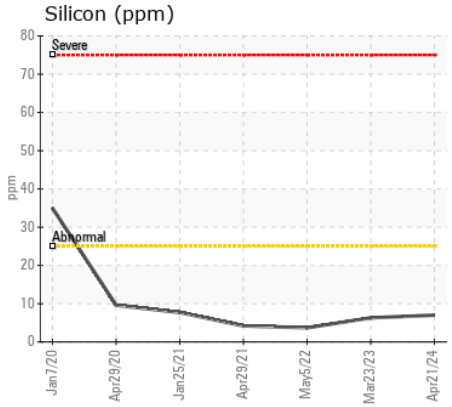
Chromium (ppm)



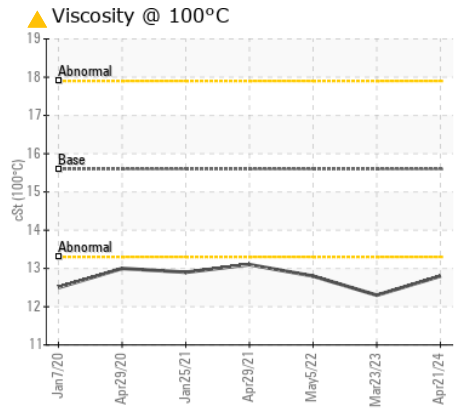
Copper (ppm)



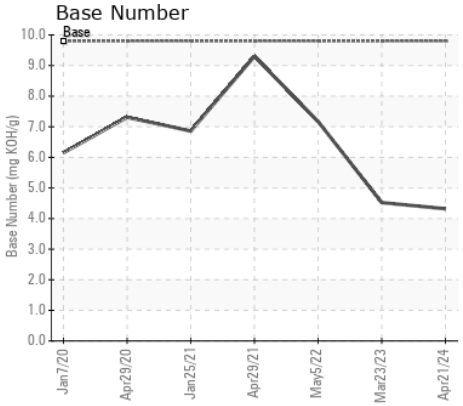
Silicon (ppm)



Viscosity @ 100°C



Base Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0895857 **Received** : 26 Apr 2024
Lab Number : 02631557 **Tested** : 29 Apr 2024
Unique Number : 5772710 **Diagnosed** : 29 Apr 2024 - Wes Davis
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

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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