MOB 1 WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Machine Id
INTERNATIONAL 540
Component
Diesel Engine
Fluid
PETRO CANADA DURON-E XL 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

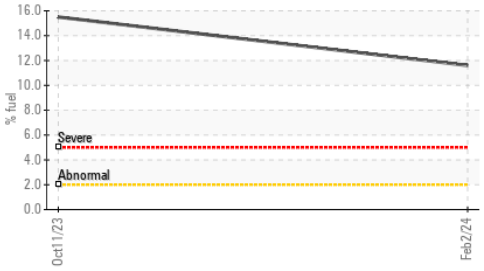
There is a high amount of fuel present in the oil.

FLUID CONDITION

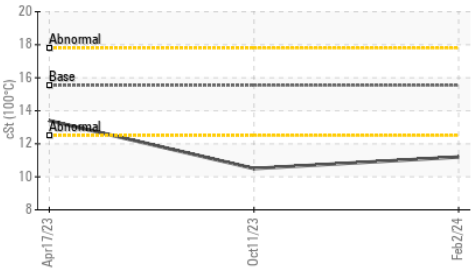
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**WC0878884**	WC0851022	WC0792793
Sample Date		Client Info		**02 Feb 2024**	11 Oct 2023	17 Apr 2023
Machine Age	mls	Client Info		**118794**	114548	110850
Oil Age	mls	Client Info		**5000**	5000	0
Filter Age	mls	Client Info		**5000**	5000	0
Oil Changed		Client Info		**N/A**	Changed	N/A
Filter Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**SEVERE**	SEVERE	NORMAL
Iron	ppm	ASTM D5185m	>100	**18**	30	8
Chromium	ppm	ASTM D5185m	>20	**<1**	<1	1
Nickel	ppm	ASTM D5185m	>4	**<1**	<1	<1
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**6**	6	1
Lead	ppm	ASTM D5185m	>40	**<1**	4	<1
Copper	ppm	ASTM D5185m	>330	**1**	2	<1
Tin	ppm	ASTM D5185m	>15	**1**	<1	<1
Vanadium	ppm	ASTM D5185m		**<1**	<1	1
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	**2**	4	6
Potassium	ppm	ASTM D5185m	>20	**0**	5	3
Fuel	%	ASTM D3524	>2.0	**11.6**	15.5	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG
Soot %	%	*ASTM D7844	>3	**0.5**	0.9	0.2
Nitration	Abs/cm	*ASTM D7624	>20	**9.1**	10.3	5.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	**19.5**	21.7	17.4
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	NEG
Sodium	ppm	ASTM D5185m		**1**	2	3
Boron	ppm	ASTM D5185m	1	**7**	9	20
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	60	**56**	52	57
Manganese	ppm	ASTM D5185m	0	**<1**	<1	2
Magnesium	ppm	ASTM D5185m	1010	**846**	741	823
Calcium	ppm	ASTM D5185m	1070	**923**	914	977
Phosphorus	ppm	ASTM D5185m	1150	**911**	848	870
Zinc	ppm	ASTM D5185m	1270	**1107**	1031	1106
Sulfur	ppm	ASTM D5185m	2060	**2758**	2544	3172
Oxidation	Abs/.1mm	*ASTM D7414	>25	**16.7**	20.3	13.3
Base Number (BN)	mg KOH/g	ASTM D2896	10.0	**7.8**	7.5	8.9
Visc @ 100°C	cSt	ASTM D445	15.54	**11.2**	10.5	13.4

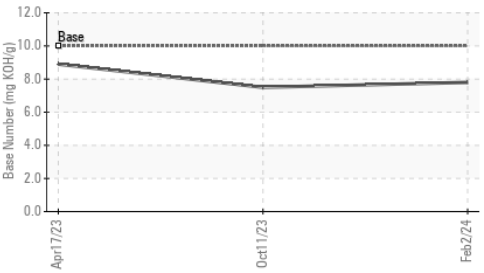
Fuel Dilution



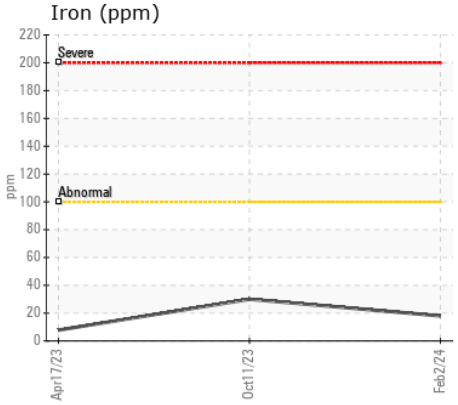
Viscosity @ 100°C



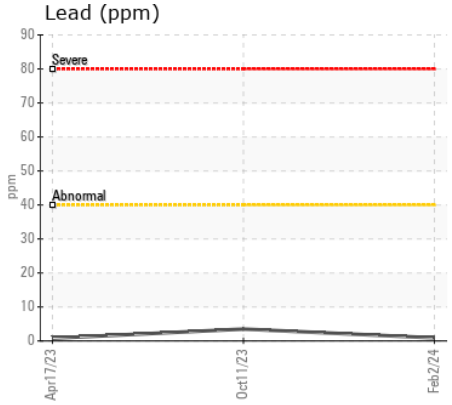
Base Number



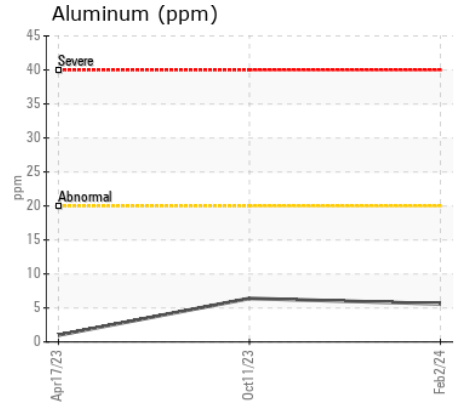
Iron (ppm)



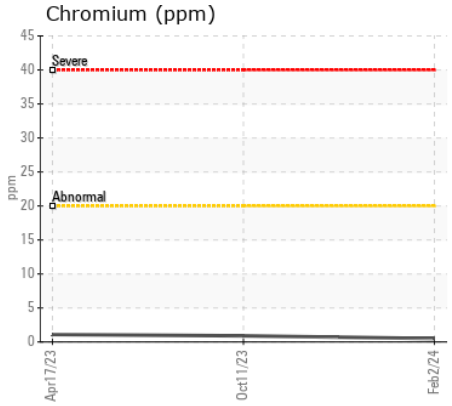
Lead (ppm)



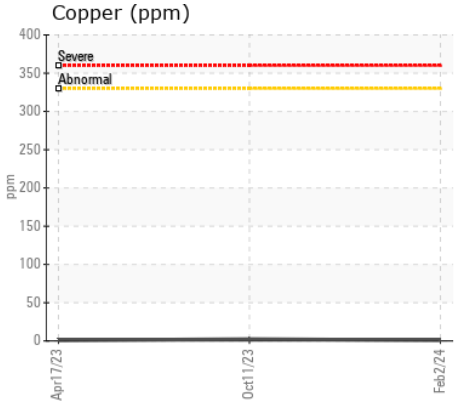
Aluminum (ppm)



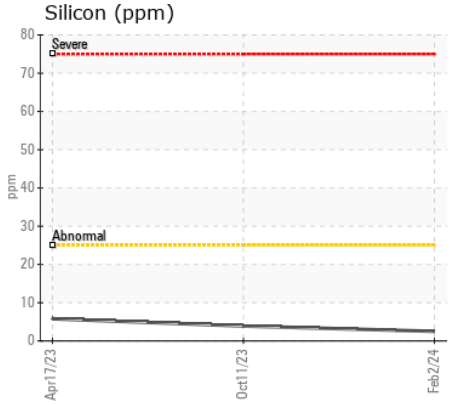
Chromium (ppm)



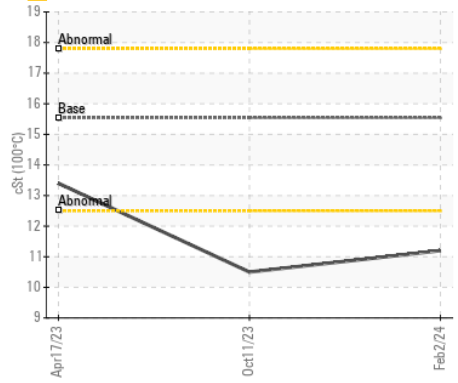
Copper (ppm)



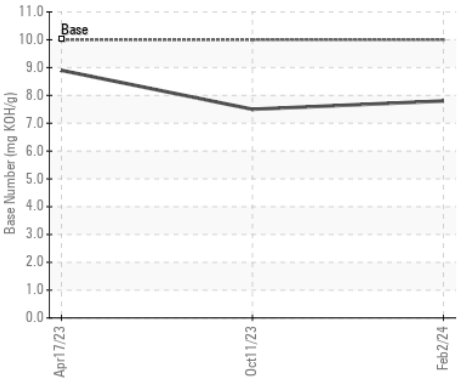
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0878884
Lab Number : 06084220
Unique Number : 10871665
Test Package : MOB 1 (Additional Tests: PercentFuel, TBN)

Received : 08 Feb 2024
Tested : 13 Feb 2024
Diagnosed : 13 Feb 2024 - Jonathan Hester

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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