MOB II WEAR CHECK

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
FORD 2249
Component
Front Diesel Engine
Fluid
PETRO CANADA 15W40 (18 QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

Piston and cylinder wear is indicated.

CONTAMINATION

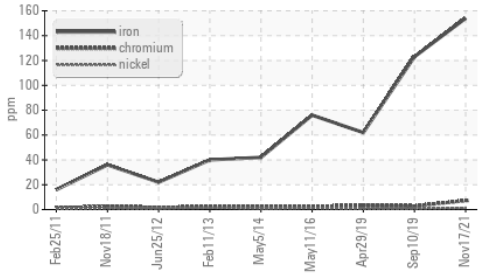
There is no indication of any contamination in the oil.

FLUID CONDITION

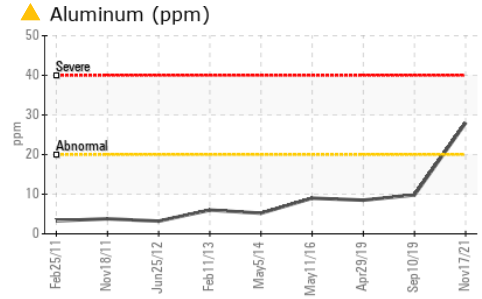
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RW0002462	RW0000216	RW0000078
Sample Date		Client Info		17 Nov 2021	10 Sep 2019	29 Apr 2019
Machine Age	mls	Client Info		217335	196689	181337
Oil Age	mls	Client Info		12000	15000	5000
Filter Age	mls	Client Info		12000	15000	5000
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185m	>90	▲ 154	▲ 123	62
Chromium	ppm	ASTM D5185m	>20	7	3	4
Nickel	ppm	ASTM D5185m	>2	1	<1	<1
Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	▲ 28	10	8
Lead	ppm	ASTM D5185m	>40	5	2	<1
Copper	ppm	ASTM D5185m	>330	4	3	2
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	10	4	4
Potassium	ppm	ASTM D5185m	>20	2	3	6
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water	%	ASTM D6304	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	3.1	3.4	1.2
Nitration	Abs/cm	*ASTM D7624	>20	15.7	14.7	11.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	32.4	28.4	24.3
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	4	3
Boron	ppm	ASTM D5185m		57	11	91
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		120	56	10
Manganese	ppm	ASTM D5185m		1	2	<1
Magnesium	ppm	ASTM D5185m		596	845	168
Calcium	ppm	ASTM D5185m		1504	1184	2178
Phosphorus	ppm	ASTM D5185m		805	865	946
Zinc	ppm	ASTM D5185m		898	1088	1023
Sulfur	ppm	ASTM D5185m		2068	2230	4101
Oxidation	Abs/.1mm	*ASTM D7414	>25	26.3	20.2	19.6
Base Number (BN)	mg KOH/g	ASTM D2896		4.73	7.63	6.17
Visc @ 100°C	cSt	ASTM D445		14.9	15.3	14.4

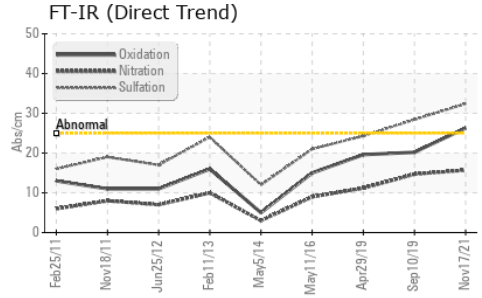
Ferrous Alloys



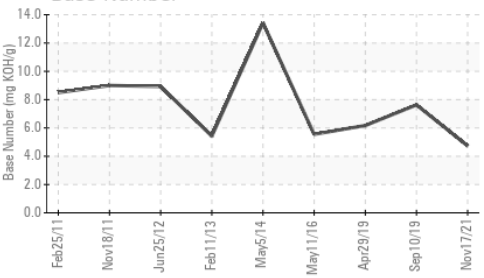
Aluminum (ppm)



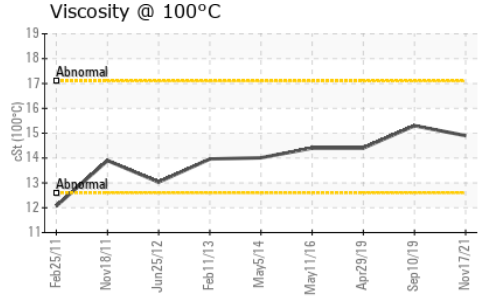
FT-IR (Direct Trend)



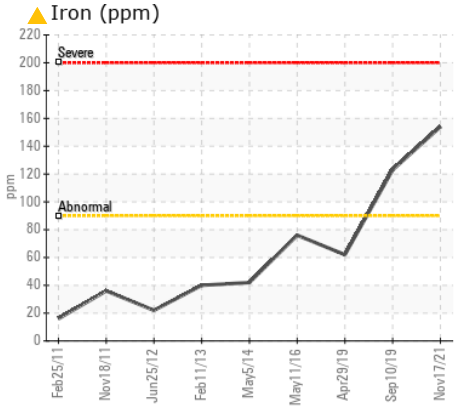
Base Number



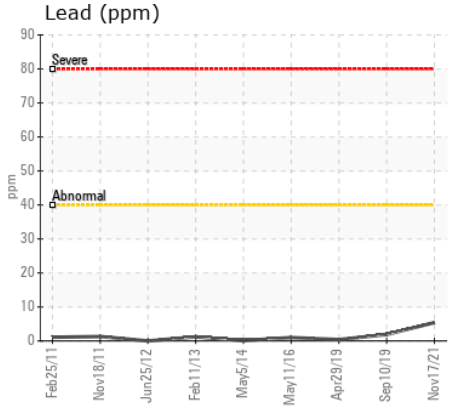
Viscosity @ 100°C



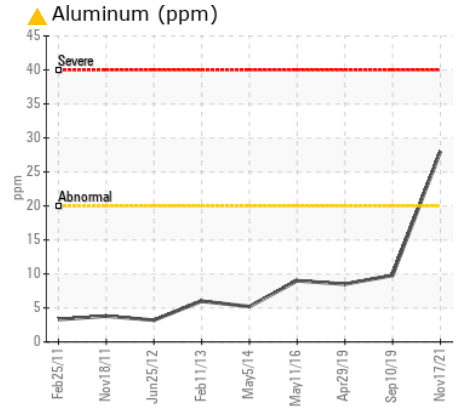
Iron (ppm)



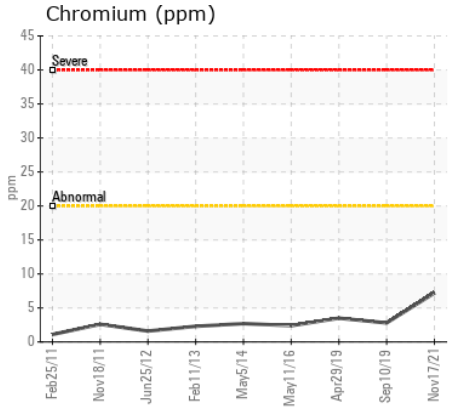
Lead (ppm)



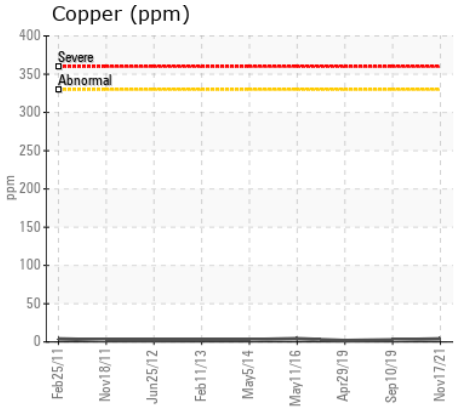
Aluminum (ppm)



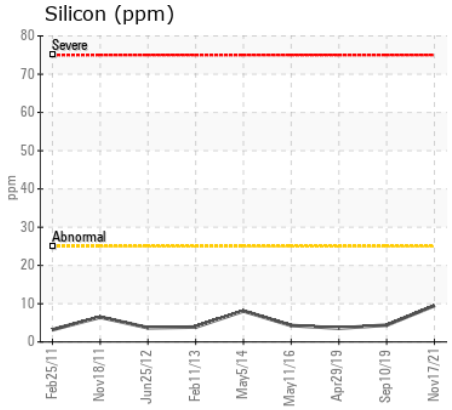
Chromium (ppm)



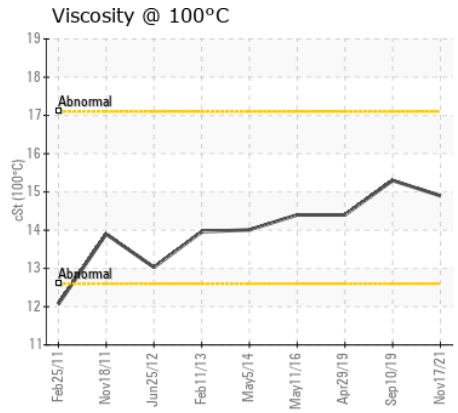
Copper (ppm)



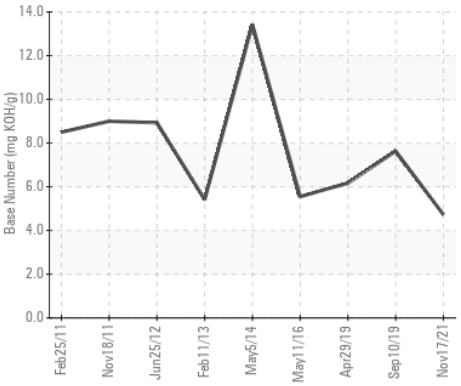
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RW0002462 **Received** : 06 Dec 2021
Lab Number : 05415743 **Tested** : 08 Dec 2021
Unique Number : 9764931 **Diagnosed** : 08 Dec 2021 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: KF)

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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