MOB II LUBE PLUS+

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Area
EXCAVATOR
Machine Id
JOHN DEERE 05-02010-060
Component
Diesel Engine
Fluid
PETRO CANADA 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

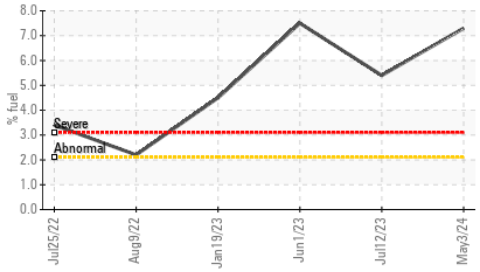
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

FLUID CONDITION

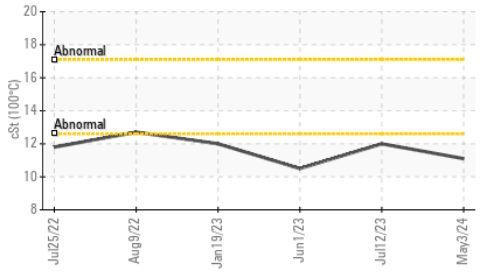
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LP0000006	WC0661796	WC0661789
Sample Date		Client Info		03 May 2024	12 Jul 2023	01 Jun 2023
Machine Age	hrs	Client Info		10709	9420	8376
Oil Age	hrs	Client Info		2571	1282	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	ABNORMAL	SEVERE
Iron	ppm	ASTM D5185m	>51	36	12	23
Chromium	ppm	ASTM D5185m	>11	0	0	<1
Nickel	ppm	ASTM D5185m	>5	0	0	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	2	2	3
Lead	ppm	ASTM D5185m	>26	21	4	6
Copper	ppm	ASTM D5185m	>26	9	6	9
Tin	ppm	ASTM D5185m	>4	3	1	3
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	6	6	6
Potassium	ppm	ASTM D5185m	>20	3	45	19
Fuel	%	ASTM D3524	>2.1	▲ 7.3	▲ 5.4	▲ 7.5
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	0.0
Soot %	%	*ASTM D7844	>3	0.6	0.4	0.5
Nitration	Abs/cm	*ASTM D7624	>20	11.3	8.4	10.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.2	19.7	21.9
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	>0.21	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		6	12	17
Boron	ppm	ASTM D5185m		3	2	10
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		61	62	77
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		887	890	887
Calcium	ppm	ASTM D5185m		1093	1100	1088
Phosphorus	ppm	ASTM D5185m		992	952	848
Zinc	ppm	ASTM D5185m		1200	1191	1096
Sulfur	ppm	ASTM D5185m		2973	3307	3266
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.5	15.5	17.4
Base Number (BN)	mg KOH/g	ASTM D2896		6.73	9.65	8.38
Visc @ 100°C	cSt	ASTM D445		▲ 11.1	▲ 12.0	▲ 10.5

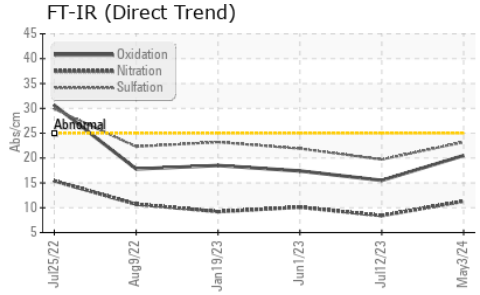
Fuel Dilution



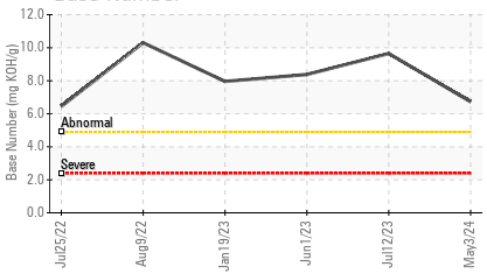
Viscosity @ 100°C



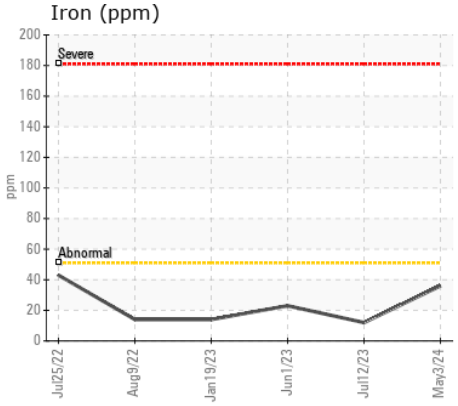
FT-IR (Direct Trend)



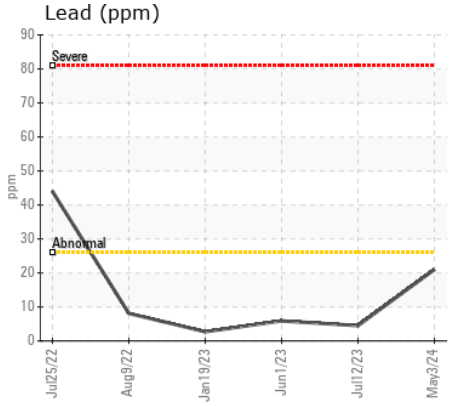
Base Number



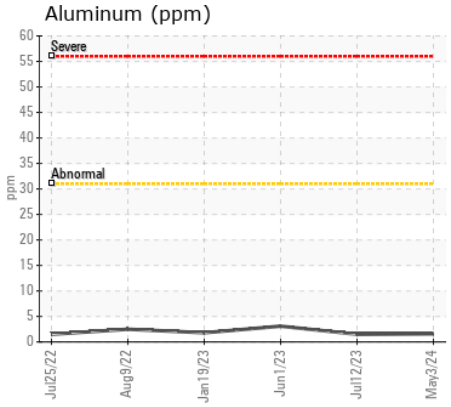
Iron (ppm)



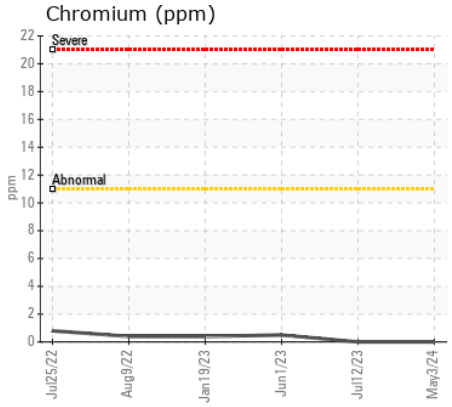
Lead (ppm)



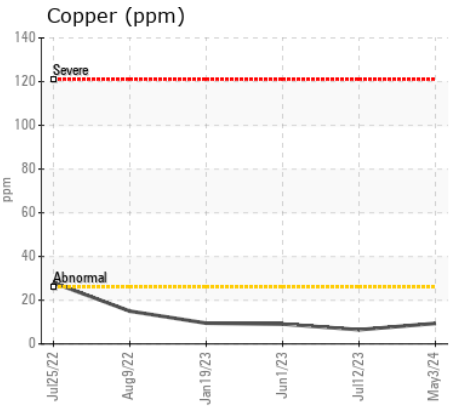
Aluminum (ppm)



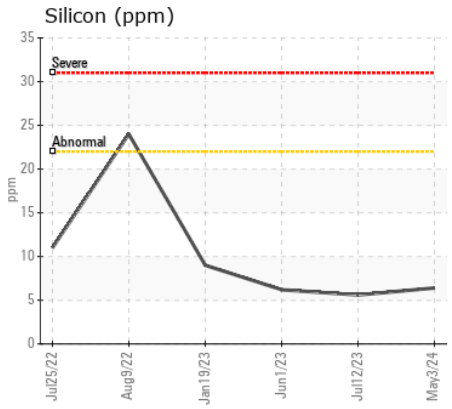
Chromium (ppm)



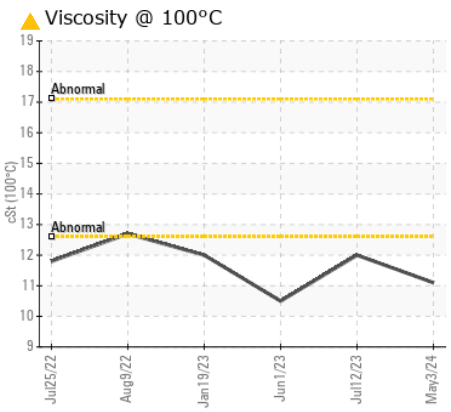
Copper (ppm)



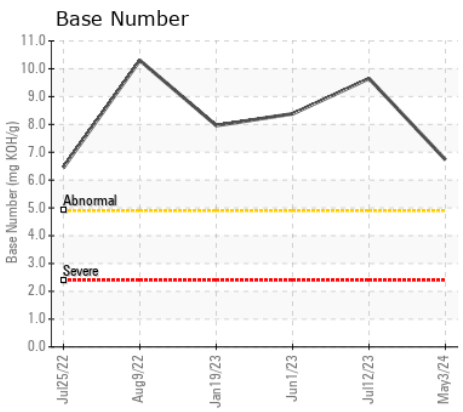
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LP0000006
Lab Number : 06176234
Unique Number : 11022287
Test Package : MOB 2 (Additional Tests: PercentFuel)

Received : 10 May 2024
Tested : 15 May 2024
Diagnosed : 15 May 2024 - Wes Davis

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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