MOB

James River Equipment

OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Machine Id
NOT GIVEN JR0207338 - 8543 HRS (S/N NO INFO ON SIF/BOTTLE)
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. 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

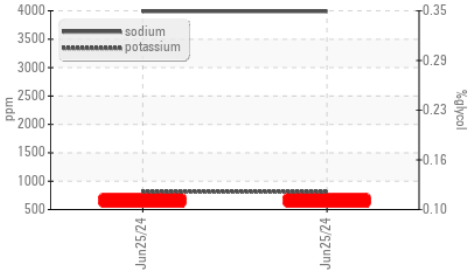
Sodium and/or potassium levels are high. There is a high concentration of glycol present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

FLUID CONDITION

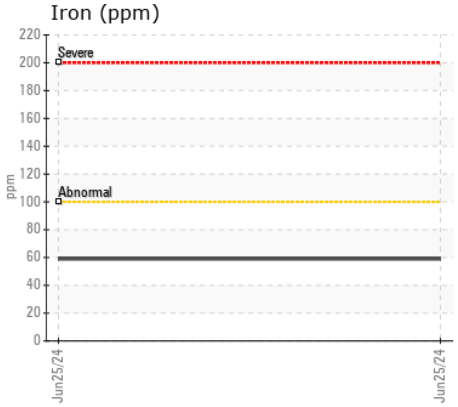
The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0207338	---	---
Sample Date		Client Info		25 Jun 2024	---	---
Machine Age	hrs	Client Info		8543	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				SEVERE	---	---
Iron	ppm	ASTM D5185m	>100	59	---	---
Chromium	ppm	ASTM D5185m	>20	6	---	---
Nickel	ppm	ASTM D5185m	>4	2	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>20	● 37	---	---
Lead	ppm	ASTM D5185m	>40	16	---	---
Copper	ppm	ASTM D5185m	>330	85	---	---
Tin	ppm	ASTM D5185m	>15	8	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185m	>25	▲ 75	---	---
Potassium	ppm	ASTM D5185m	>20	▲ 812	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol	%	*ASTM D2982		▲ 0.12	---	---
Soot %	%	*ASTM D7844	>3	0.3	---	---
Nitration	Abs/cm	*ASTM D7624	>20	22.8	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.5	---	---
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	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---
Sodium	ppm	ASTM D5185m		▲ 3989	---	---
Boron	ppm	ASTM D5185m		290	---	---
Barium	ppm	ASTM D5185m		4	---	---
Molybdenum	ppm	ASTM D5185m		1003	---	---
Manganese	ppm	ASTM D5185m		3	---	---
Magnesium	ppm	ASTM D5185m		762	---	---
Calcium	ppm	ASTM D5185m		1060	---	---
Phosphorus	ppm	ASTM D5185m		975	---	---
Zinc	ppm	ASTM D5185m		1065	---	---
Sulfur	ppm	ASTM D5185m		3257	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.6	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	51.6	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	15.9	---	---

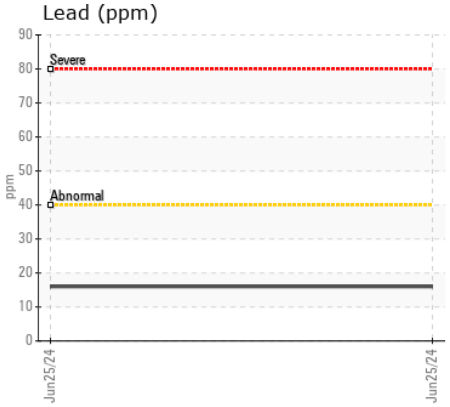
Glycol Contamination



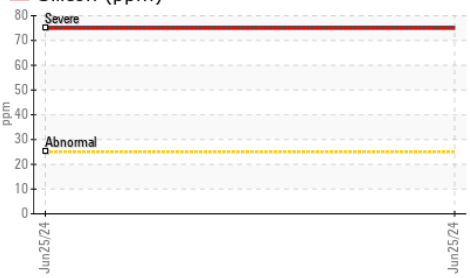
Iron (ppm)



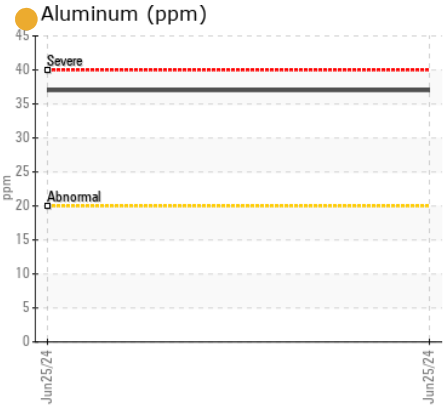
Lead (ppm)



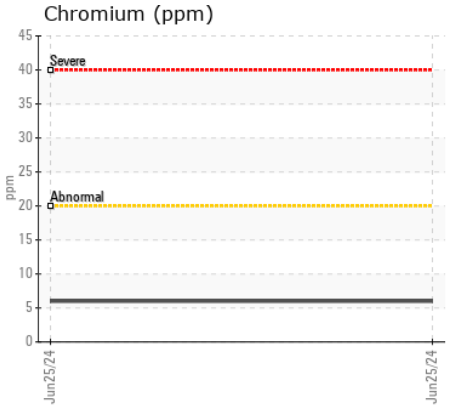
Silicon (ppm)



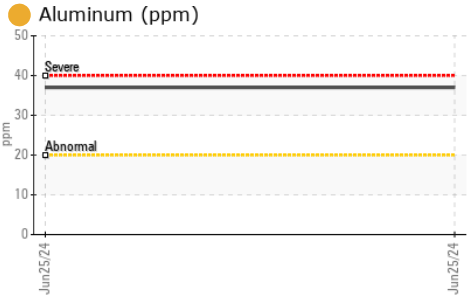
Aluminum (ppm)



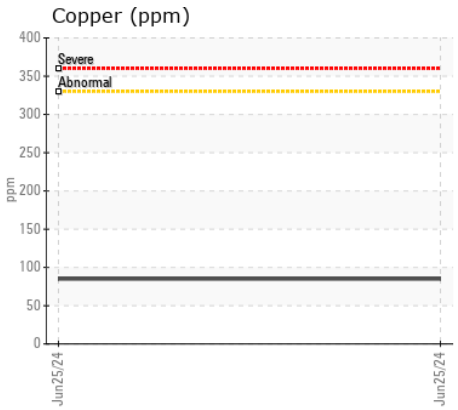
Chromium (ppm)



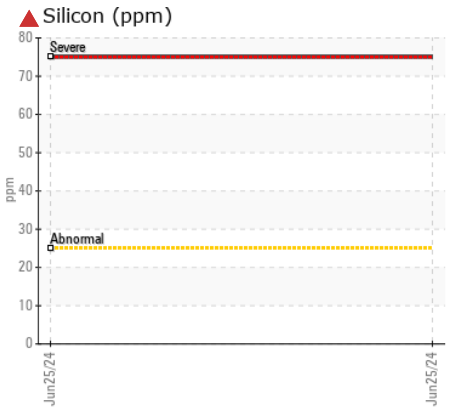
Aluminum (ppm)



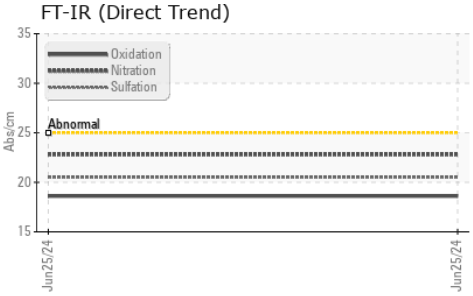
Copper (ppm)



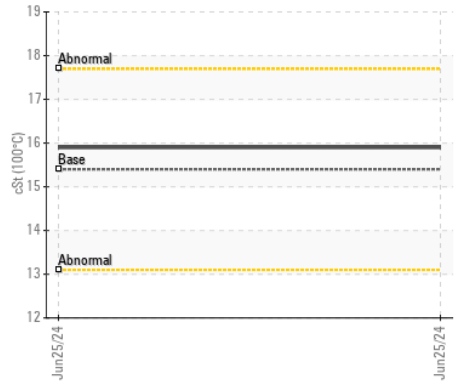
Silicon (ppm)



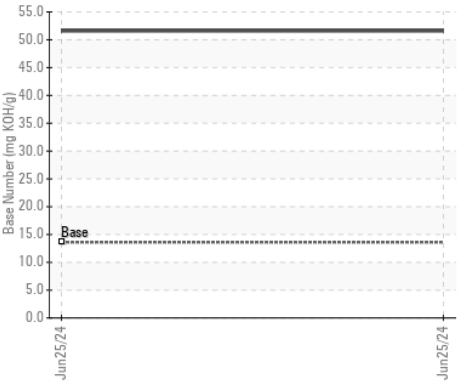
FT-IR (Direct Trend)



Viscosity @ 100°C



Base Number



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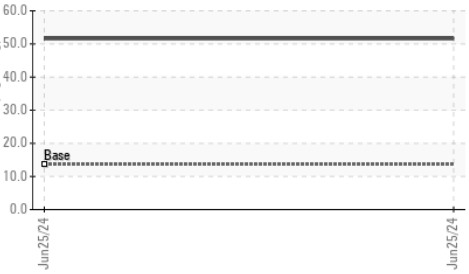

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0207338 **Received** : 26 Jun 2024
Lab Number : 06220829 **Tested** : 28 Jun 2024
Unique Number : 11099026 **Diagnosed** : 28 Jun 2024 - Jonathan Hester
Test Package : MOBCE (Additional Tests: Glycol, TBN)

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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