CONST

James River Equipment

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

[W44834]

Machine Id

WIRTGEN W2101 1520-1187

Component

Rear Diesel Engine

Fluid

JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

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

WEAR

The nickel level is abnormal. All other component wear rates are normal.

CONTAMINATION

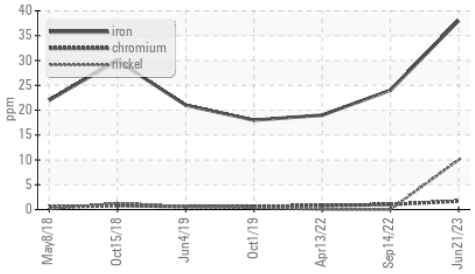
There is no indication of any contamination in the oil.

FLUID CONDITION

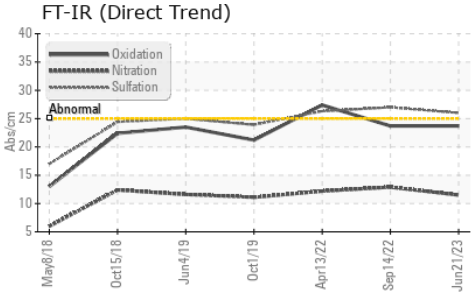
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0164910	JR0125740	JR0105901
Sample Date		Client Info		21 Jun 2023	14 Sep 2022	13 Apr 2022
Machine Age	hrs	Client Info		6733	5919	5300
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	ATTENTION
Iron	ppm	ASTM D5185m	>100	38	24	19
Chromium	ppm	ASTM D5185m	>20	2	1	<1
Nickel	ppm	ASTM D5185m	>4	▲ 10	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	2	6	4
Lead	ppm	ASTM D5185m	>40	<1	2	1
Copper	ppm	ASTM D5185m	>330	3	3	3
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	12	11	8
Potassium	ppm	ASTM D5185m	>20	10	13	5
Fuel		WC Method	>5	<1.0	<1.0	▲ 2.6
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.2	0.4
Nitration	Abs/cm	*ASTM D7624	>20	11.5	12.9	12.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.0	27.0	26.3
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		23	2	2
Boron	ppm	ASTM D5185m		93	59	4
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		228	211	57
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		822	806	952
Calcium	ppm	ASTM D5185m		1438	1399	1376
Phosphorus	ppm	ASTM D5185m		781	850	1116
Zinc	ppm	ASTM D5185m		979	1090	1266
Sulfur	ppm	ASTM D5185m		3302	3146	3064
Oxidation	Abs/.1mm	*ASTM D7414	>25	23.7	23.7	27.4
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.3	8.0	7.5
Visc @ 100°C	cSt	ASTM D445	15.4	13.4	13.6	● 12.2

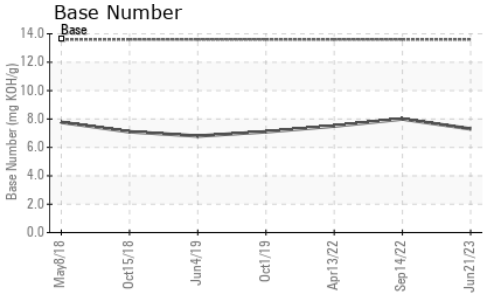
Ferrous Alloys



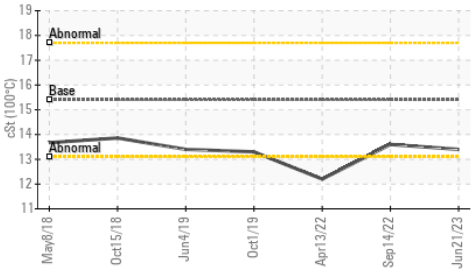
FT-IR (Direct Trend)



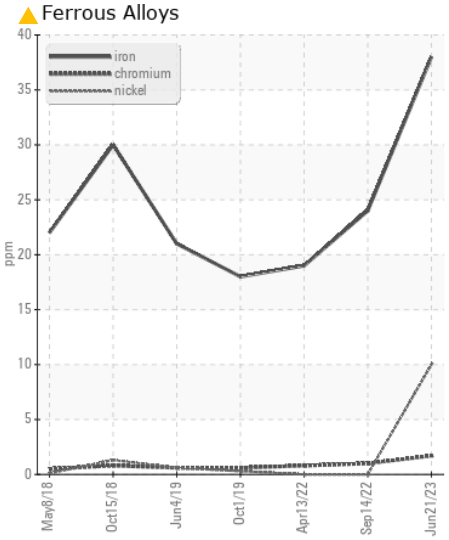
Base Number



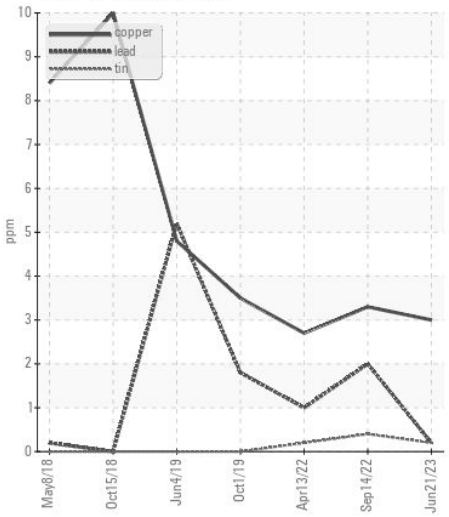
Viscosity @ 100°C



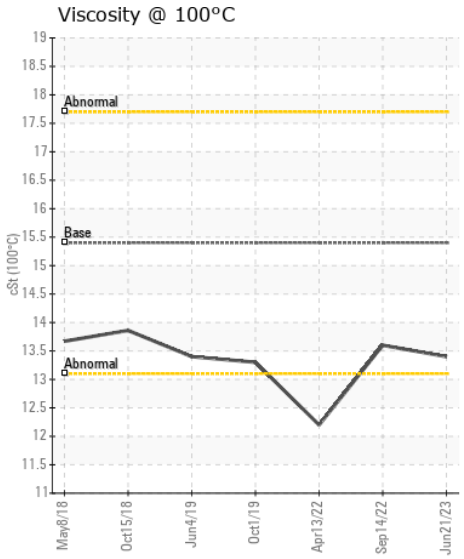
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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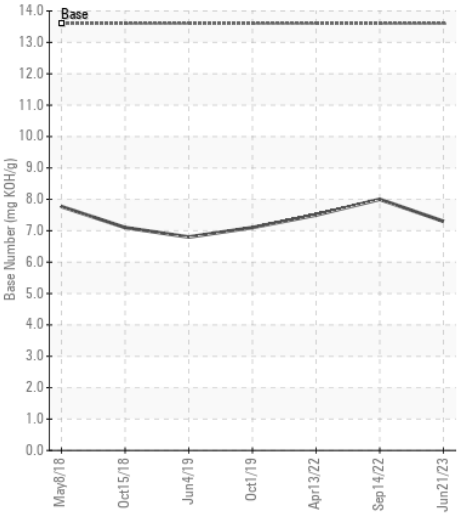

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0164910
Lab Number : 05881782
Unique Number : 10532265
Test Package : CONST (Additional Tests: TBN)

Received : 23 Jun 2023
Tested : 23 Jun 2023
Diagnosed : 27 Jun 2023 - Angela Borella

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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