James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 524K DW524KZ622788
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (5 GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted.

WEAR

All component wear rates are normal.

CONTAMINATION

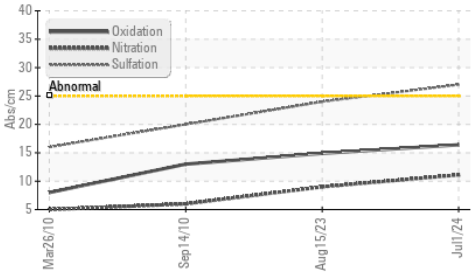
Light concentration of carbon/soot present in the oil.

FLUID CONDITION

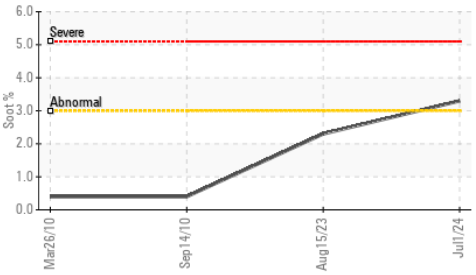
The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0221801	JR0170322	JRMC259353
Sample Date		Client Info		01 Jul 2024	15 Aug 2023	14 Sep 2010
Machine Age	hrs	Client Info		18257	17940	505
Oil Age	hrs	Client Info		17940	0	0
Filter Age	hrs	Client Info		17940	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>51	49	37	24
Chromium	ppm	ASTM D5185m	>11	<1	1	<1
Nickel	ppm	ASTM D5185m	>5	<1	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>31	6	4	6
Lead	ppm	ASTM D5185m	>26	0	1	<1
Copper	ppm	ASTM D5185m	>26	0	1	<1
Tin	ppm	ASTM D5185m	>4	0	<1	0
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	>22	8	7	4
Potassium	ppm	ASTM D5185m	>20	2	2	0
Fuel	%	ASTM D3524	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	▲ 3.3	2.3	0.4
Nitration	Abs/cm	*ASTM D7624	>20	11.1	9.0	6.
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.0	24.0	20.
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	>31	1	2	2
Boron	ppm	ASTM D5185m		254	276	222
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		261	218	214
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		909	748	710
Calcium	ppm	ASTM D5185m		1458	1637	1918
Phosphorus	ppm	ASTM D5185m		943	898	917
Zinc	ppm	ASTM D5185m		1146	1118	1192
Sulfur	ppm	ASTM D5185m		3534	3626	3266
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.4	14.9	13.
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.5	7.7	8.87
Visc @ 100°C	cSt	ASTM D445	15.4	15.9	15.9	14.56

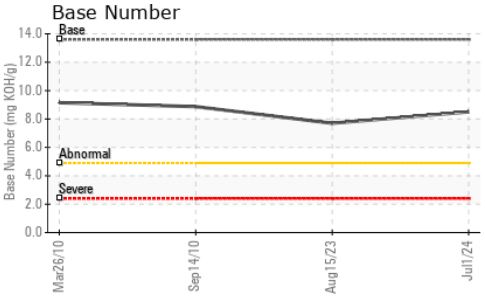
FT-IR (Direct Trend)



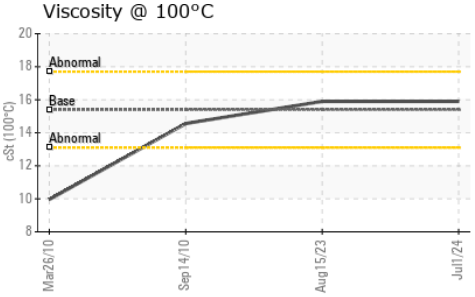
Soot %



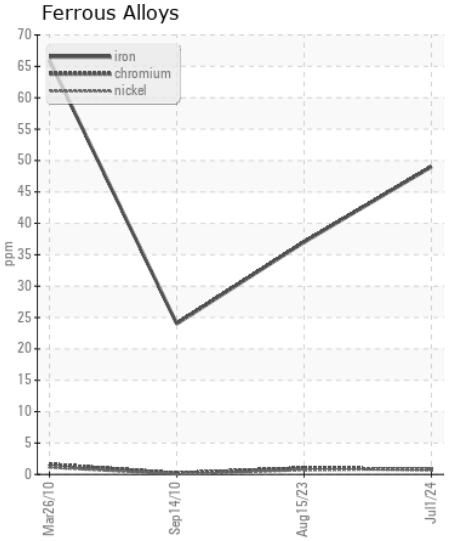
Base Number



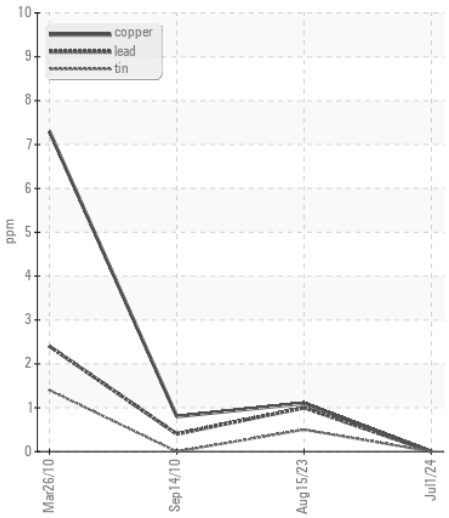
Viscosity @ 100°C



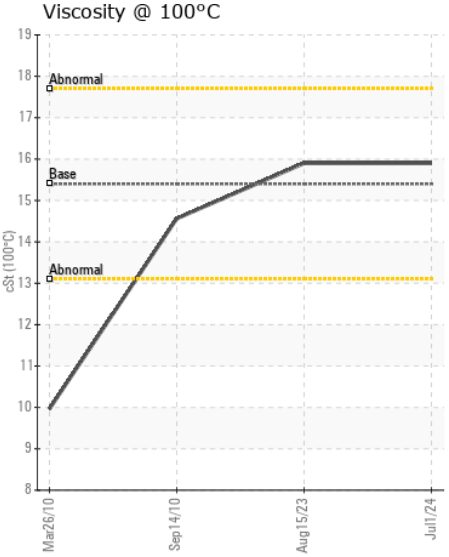
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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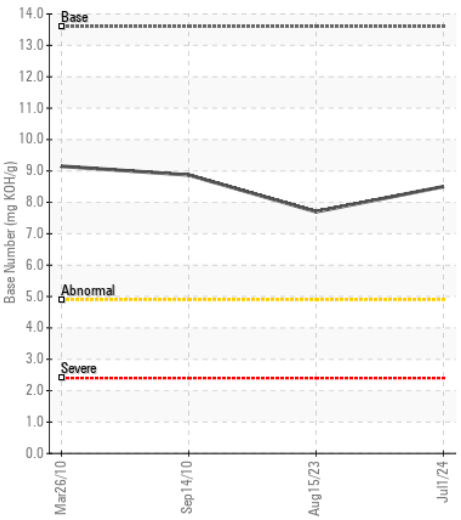

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0221801
Lab Number : 06228242
Unique Number : 11111735
Test Package : CONST (Additional Tests: FuelDilution, TBN)

Received : 05 Jul 2024
Tested : 08 Jul 2024
Diagnosed : 08 Jul 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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