CONST

James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
JOHN DEERE 310E 1DW310EXPNF713863
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (32 QTS)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

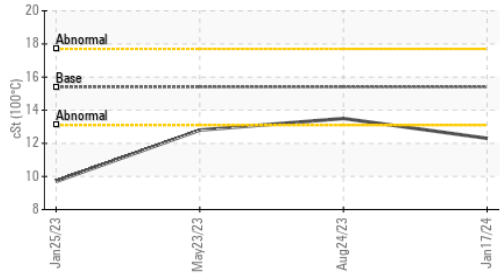
Fuel content negligible. There is no indication of any contamination in the oil.

FLUID CONDITION

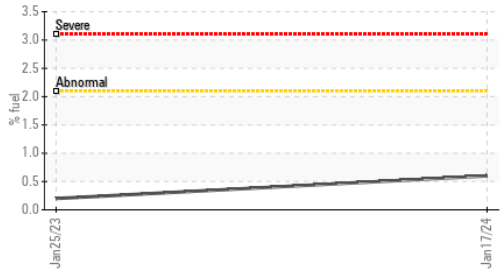
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0199116	JR0183876	JR0173175
Sample Date		Client Info		17 Jan 2024	24 Aug 2023	23 May 2023
Machine Age	hrs	Client Info		1969	1447	944
Oil Age	hrs	Client Info		522	503	488
Filter Age	hrs	Client Info		522	503	488
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>51	18	21	24
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	11	6	14
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	5	5	3
Lead	ppm	ASTM D5185m	>26	<1	0	<1
Copper	ppm	ASTM D5185m	>26	2	4	12
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	8	7	8
Potassium	ppm	ASTM D5185m	>20	3	<1	2
Fuel	%	ASTM D3524	>2.1	0.6	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.0	7.9	8.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.4	20.2	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	>31	2	2	6
Boron	ppm	ASTM D5185m		192	256	225
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		198	266	242
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m		692	877	854
Calcium	ppm	ASTM D5185m		1942	1568	1456
Phosphorus	ppm	ASTM D5185m		1024	970	908
Zinc	ppm	ASTM D5185m		1198	1176	1123
Sulfur	ppm	ASTM D5185m		3384	3955	3711
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.4	14.5	16.0
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.8	8.3	8.5
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.3	13.5	12.8

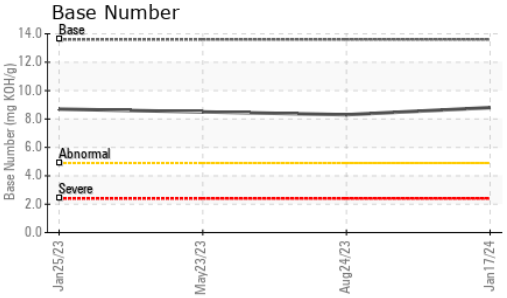
Viscosity @ 100°C



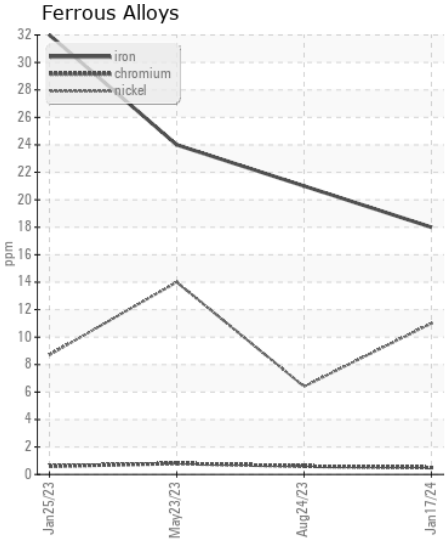
Fuel Dilution



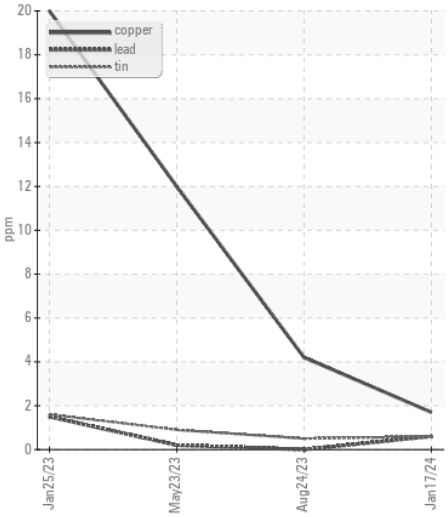
Base Number



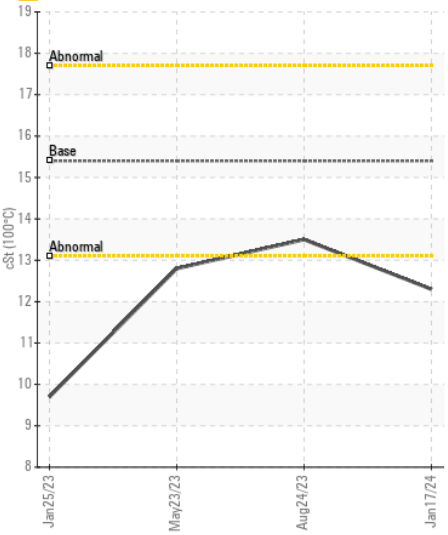
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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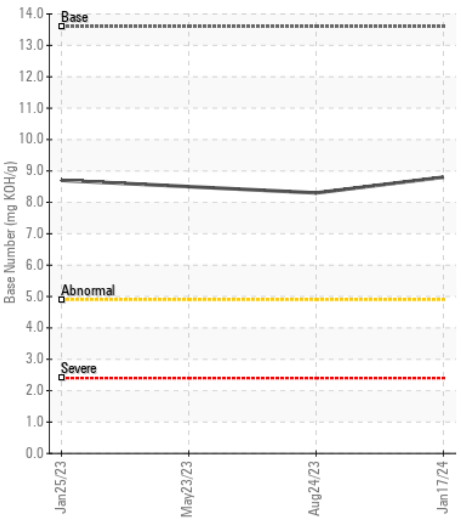

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0199116 **Recieved** : 18 Jan 2024
Lab Number : 06064982 **Diagnosed** : 24 Jan 2024
Unique Number : 10836364 **Diagnostician** : Angela Borella
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, 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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