James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Machine Id
11WR0133
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- QTS)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

WEAR

All component wear rates are normal.

CONTAMINATION

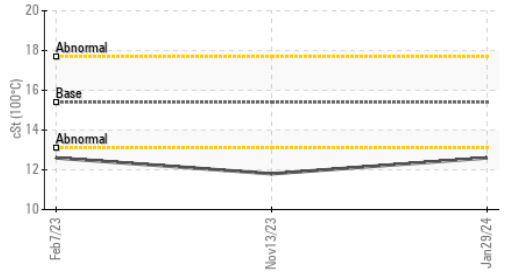
Light fuel dilution occurring.

FLUID CONDITION

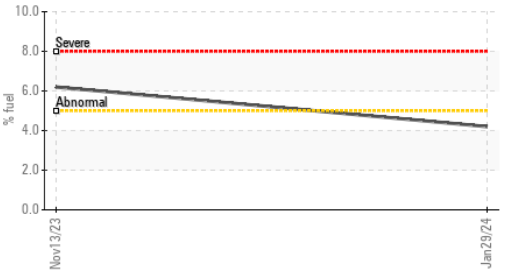
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**JR0179928**	JR0179534	JR0147392
Sample Date		Client Info		**29 Jan 2024**	13 Nov 2023	07 Feb 2023
Machine Age	hrs	Client Info		**1530**	1262	753
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**	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	**19**	19	23
Chromium	ppm	ASTM D5185m	>20	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>4	**<1**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m	>3	**<1**	0	0
Aluminum	ppm	ASTM D5185m	>20	**5**	6	4
Lead	ppm	ASTM D5185m	>40	**7**	4	6
Copper	ppm	ASTM D5185m	>330	**2**	3	4
Tin	ppm	ASTM D5185m	>15	**<1**	<1	<1
Vanadium	ppm	ASTM D5185m		**<1**	<1	<1
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	**8**	10	11
Potassium	ppm	ASTM D5185m	>20	**6**	9	9
Fuel	%	ASTM D3524	>5	▲ **4.2**	▲ 6.2	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG
Soot %	%	*ASTM D7844	>3	**0.3**	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	**11.6**	10.6	11.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	**25.5**	24.6	25.3
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		**3**	4	2
Boron	ppm	ASTM D5185m		**51**	112	56
Barium	ppm	ASTM D5185m		**0**	<1	0
Molybdenum	ppm	ASTM D5185m		**190**	234	200
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**633**	765	687
Calcium	ppm	ASTM D5185m		**1533**	1420	1517
Phosphorus	ppm	ASTM D5185m		**930**	796	868
Zinc	ppm	ASTM D5185m		**1083**	1025	1074
Sulfur	ppm	ASTM D5185m		**3107**	2884	3423
Oxidation	Abs/.1mm	*ASTM D7414	>25	**21.9**	21.3	21.3
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	**6.3**	7.3	6.3
Visc @ 100°C	cSt	ASTM D445	15.4	▲ **12.6**	▲ 11.8	12.6

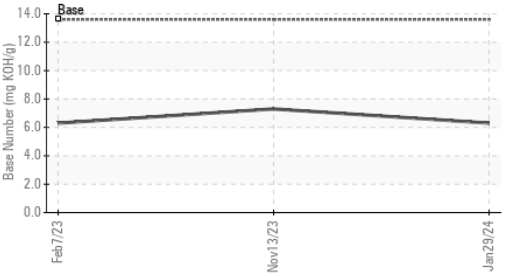
Viscosity @ 100°C



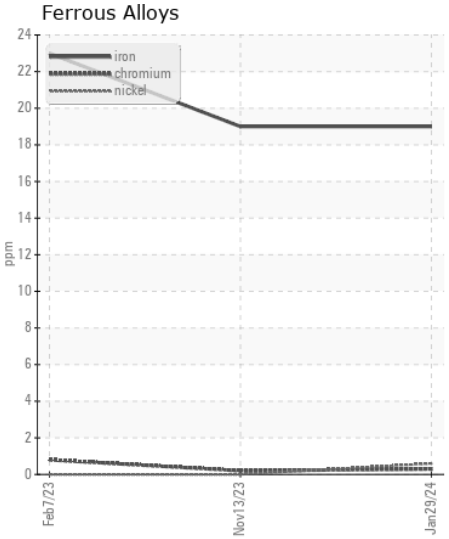
Fuel Dilution



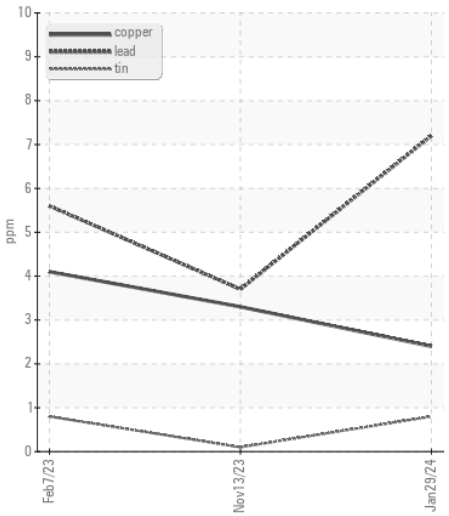
Base Number



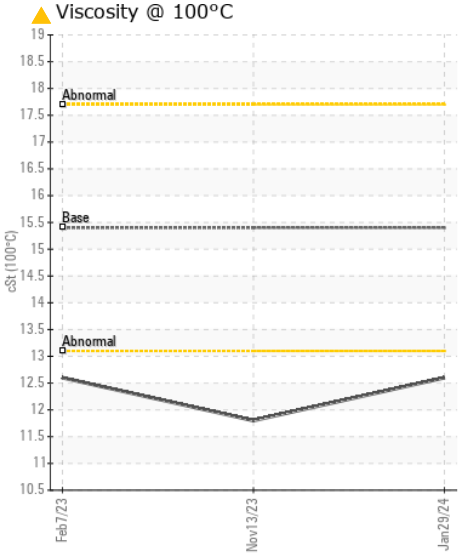
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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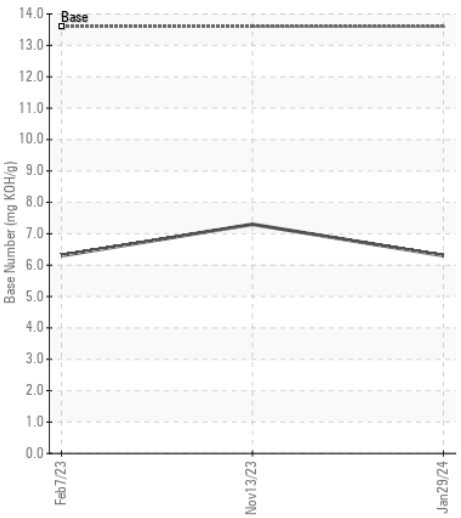

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0179928 **Recieved** : 31 Jan 2024
Lab Number : 06075498 **Diagnosed** : 02 Feb 2024
Unique Number : 10857589 **Diagnostician** : Wes Davis
Test Package : CONST (Additional Tests: 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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