James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	ATTENTION

Area
[AMES CONSTRUCTION]
Machine Id
JOHN DEERE 460E 1DW460EBTMF710176
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

Check for low coolant level. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

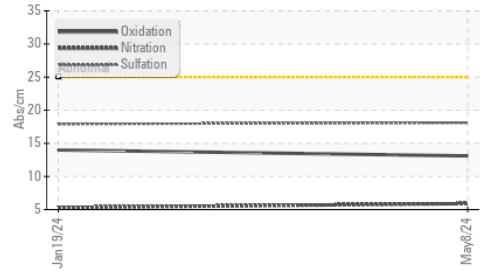
Sodium and/or potassium levels are high. Test for glycol is negative.

FLUID CONDITION

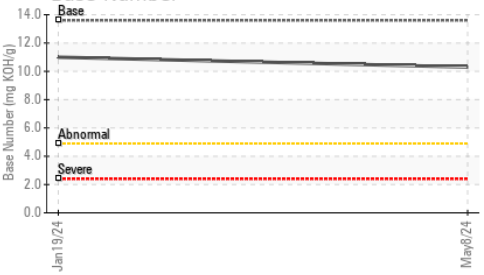
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0194745	JR0194311	---
Sample Date		Client Info		08 May 2024	19 Jan 2024	---
Machine Age	hrs	Client Info		0	6629	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Not Changd	Not Changd	---
Filter Changed		Client Info		Not Changd	Not Changd	---
Sample Status				ATTENTION	ATTENTION	---
Iron	ppm	ASTM D5185m	>51	3	<1	---
Chromium	ppm	ASTM D5185m	>11	0	<1	---
Nickel	ppm	ASTM D5185m	>5	<1	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>31	2	2	---
Lead	ppm	ASTM D5185m	>26	3	<1	---
Copper	ppm	ASTM D5185m	>26	4	2	---
Tin	ppm	ASTM D5185m	>4	<1	0	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>22	6	7	---
Potassium	ppm	ASTM D5185m	>20	77	76	---
Fuel	%	ASTM D3524	>2.1	<1.0	<1.0	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol	%	*ASTM D2982		NEG	0.0	---
Soot %	%	*ASTM D7844	>3	0.1	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	5.9	5.3	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.1	17.9	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.21	NEG	NEG	---
Sodium	ppm	ASTM D5185m	>31	199	201	---
Boron	ppm	ASTM D5185m		6	13	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		62	64	---
Manganese	ppm	ASTM D5185m		<1	0	---
Magnesium	ppm	ASTM D5185m		881	957	---
Calcium	ppm	ASTM D5185m		1103	991	---
Phosphorus	ppm	ASTM D5185m		1079	1043	---
Zinc	ppm	ASTM D5185m		1241	1225	---
Sulfur	ppm	ASTM D5185m		3708	3230	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.1	14.0	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	10.3	11.0	---
Visc @ 100°C	cSt	ASTM D445	15.4	12.8	14.4	---

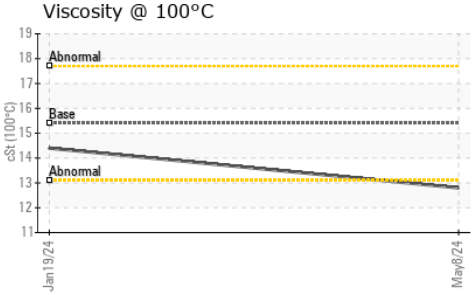
FT-IR (Direct Trend)



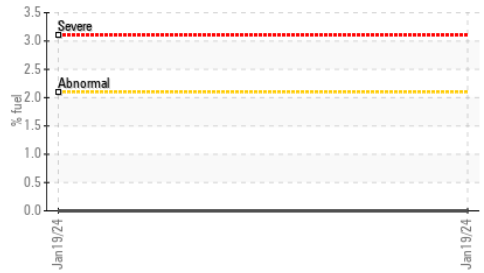
Base Number



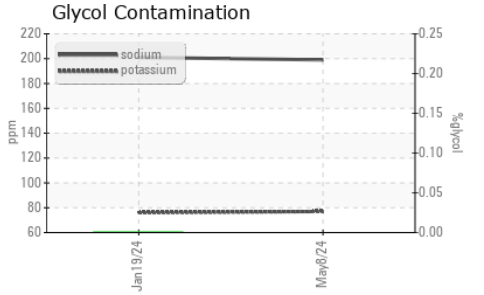
Viscosity @ 100°C



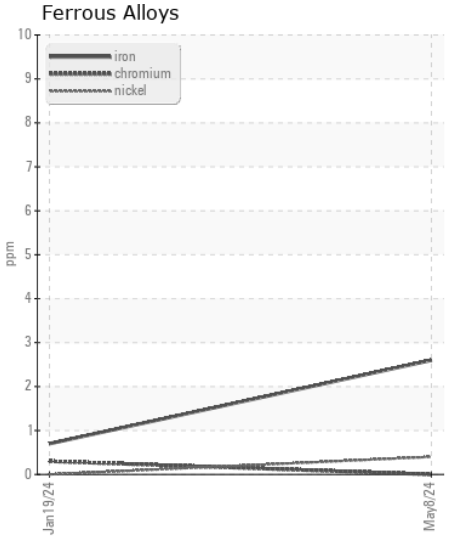
Fuel Dilution



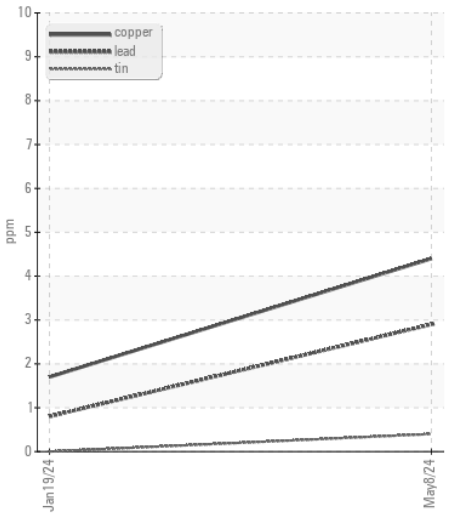
Glycol Contamination



Ferrous Alloys



Non-ferrous Metals



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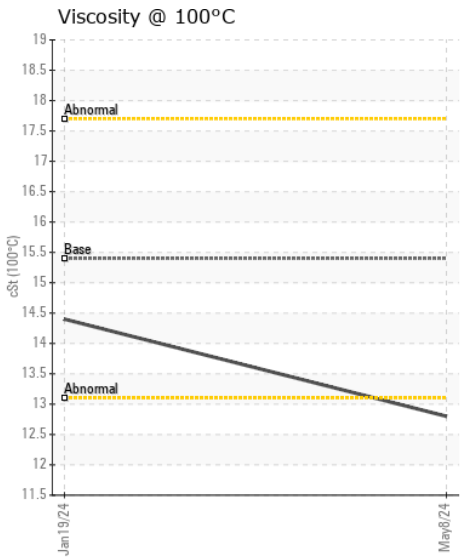
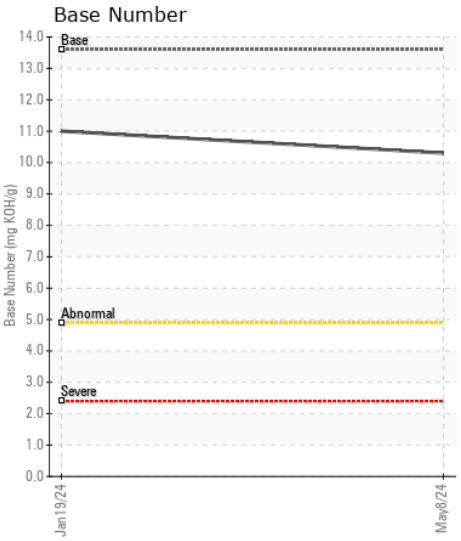


Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0194745 **Received** : 10 May 2024
Lab Number : 06175214 **Tested** : 15 May 2024
Unique Number : 11021267 **Diagnosed** : 15 May 2024 - Sean Felton
Test Package : CONST (Additional Tests: FuelDilution, 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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