James River Equipment

OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 317G 1T0317GJHKJ352212
Component
Diesel Engine
Fluid
{not provided} (--- GAL)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil and perform a filter service on this component if not already done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

WEAR

The iron level has decreased, but is still severe. Cylinder, crank, or cam shaft wear is indicated.

CONTAMINATION

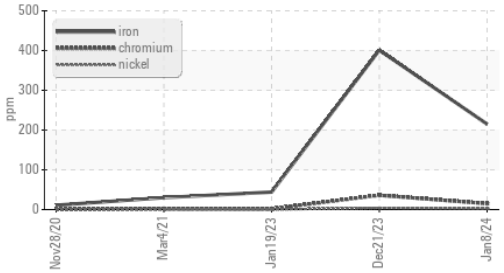
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

FLUID CONDITION

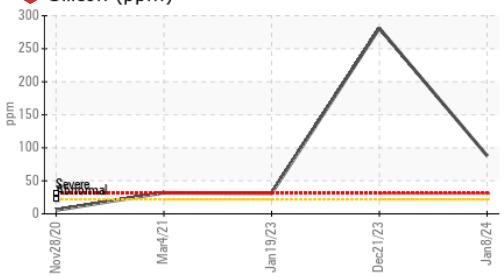
The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0194704	JR0194342	JR0138500
Sample Date		Client Info		08 Jan 2024	21 Dec 2023	19 Jan 2023
Machine Age	hrs	Client Info		1409	1406	1096
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	SEVERE	ABNORMAL
Iron	ppm	ASTM D5185m	>51	⬢ 215	⬢ 401	44
Chromium	ppm	ASTM D5185m	>11	▲ 15	⬢ 36	2
Nickel	ppm	ASTM D5185m	>5	2	4	<1
Titanium	ppm	ASTM D5185m		2	5	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	▲ 28	▲ 100	▲ 24
Lead	ppm	ASTM D5185m	>26	1	5	<1
Copper	ppm	ASTM D5185m	>26	10	▲ 42	10
Tin	ppm	ASTM D5185m	>4	2	▲ 5	0
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	⬢ 88	⬢ 281	▲ 31
Potassium	ppm	ASTM D5185m	>20	3	5	0
Fuel		WC Method	>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	0.2	0.8	0.7
Nitration	Abs/cm	*ASTM D7624	>20	6.5	10.3	10.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.0	25.7	24.7
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	0	5	<1
Boron	ppm	ASTM D5185m		261	183	152
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		235	241	242
Manganese	ppm	ASTM D5185m		3	5	<1
Magnesium	ppm	ASTM D5185m		777	863	780
Calcium	ppm	ASTM D5185m		1336	1456	1458
Phosphorus	ppm	ASTM D5185m		760	910	737
Zinc	ppm	ASTM D5185m		1029	1088	917
Sulfur	ppm	ASTM D5185m		2979	2945	3260
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.2	19.8	19.5
Base Number (BN)	mg KOH/g	ASTM D2896		9.5	8.3	8.4
Visc @ 100°C	cSt	ASTM D445		14.1	14.3	13.9

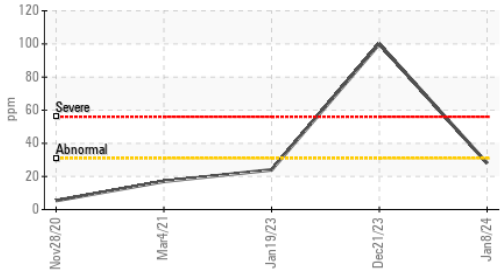
Ferrous Alloys



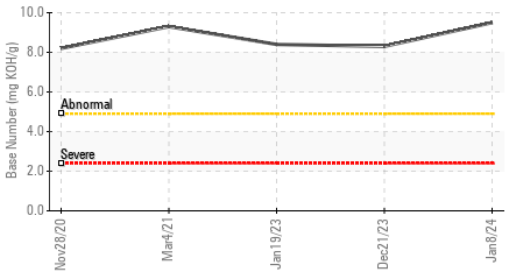
Silicon (ppm)



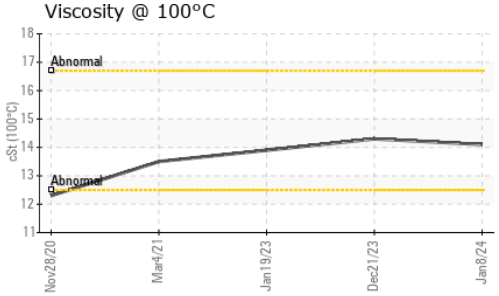
Aluminum (ppm)



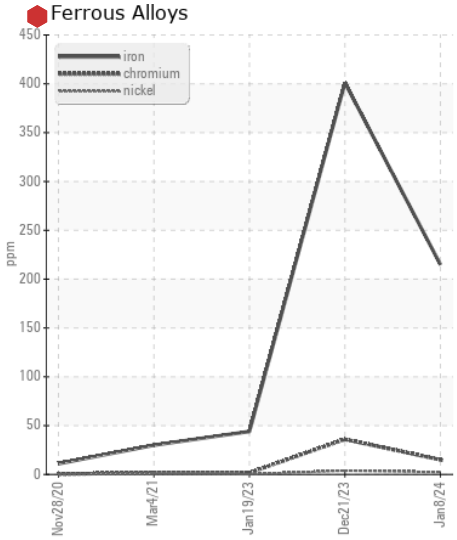
Base Number



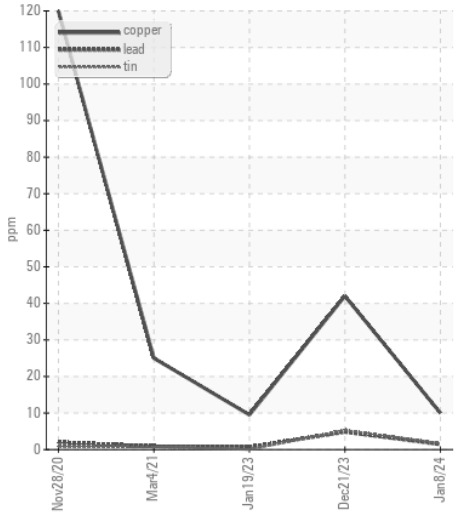
Viscosity @ 100°C



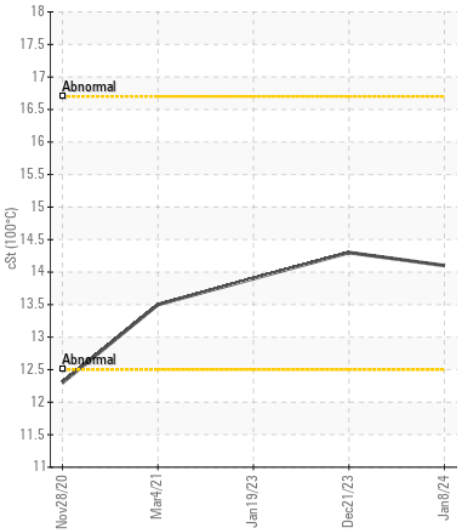
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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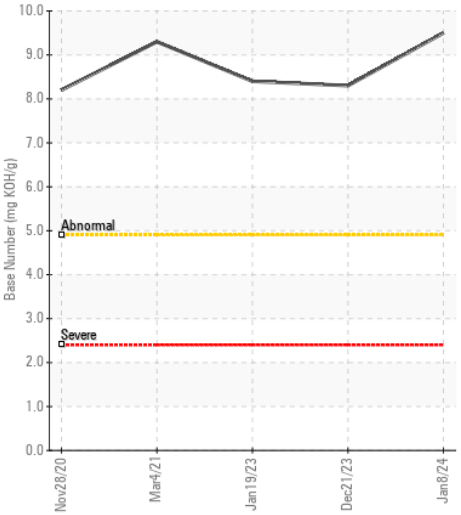

Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: JR0194704	**Recieved**	: 09 Jan 2024
Lab Number	: 06055182	**Diagnosed**	: 10 Jan 2024
Unique Number	: 10821131	**Diagnostician**	: Don Baldridge
Test Package	: CONST (Additional Tests: 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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