James River Equipment

OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION

Machine Id
FORD F550 V100
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- QTS)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

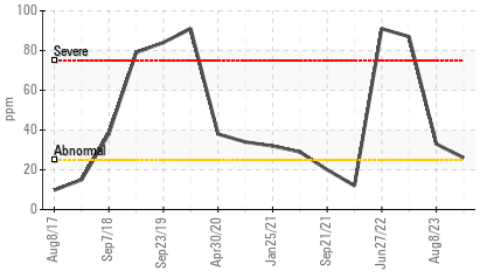
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. Light fuel dilution occurring.

FLUID CONDITION

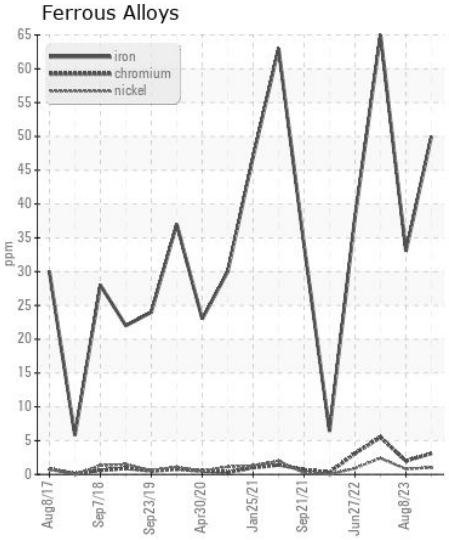
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0206194	JR0171763	JR0156086
Sample Date		Client Info		11 Apr 2024	08 Aug 2023	23 Jan 2023
Machine Age	mls	Client Info		295091	287939	282840
Oil Age	mls	Client Info		7157	21652	11562
Filter Age	mls	Client Info		7157	0	5416
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	SEVERE
Iron	ppm	ASTM D5185m	>100	50	33	65
Chromium	ppm	ASTM D5185m	>20	3	2	6
Nickel	ppm	ASTM D5185m	>2	1	<1	2
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	12	8	15
Lead	ppm	ASTM D5185m	>40	8	1	20
Copper	ppm	ASTM D5185m	>330	4	5	22
Tin	ppm	ASTM D5185m	>15	1	2	7
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	26	33	87
Potassium	ppm	ASTM D5185m	>20	4	3	5
Fuel	%	ASTM D3524	>5	3.1	3.1	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	9.4	7.9	7.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.7	20.9	25.4
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		14	29	15
Boron	ppm	ASTM D5185m		191	220	40
Barium	ppm	ASTM D5185m		0	0	<1
Molybdenum	ppm	ASTM D5185m		246	230	115
Manganese	ppm	ASTM D5185m		0	1	2
Magnesium	ppm	ASTM D5185m		765	778	364
Calcium	ppm	ASTM D5185m		1423	1387	898
Phosphorus	ppm	ASTM D5185m		926	995	1506
Zinc	ppm	ASTM D5185m		1066	1189	1893
Sulfur	ppm	ASTM D5185m		2950	3711	4468
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.1	14.8	16.6
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.9	8.0	5.9
Visc @ 100°C	cSt	ASTM D445	15.4	11.8	12.2	11.0

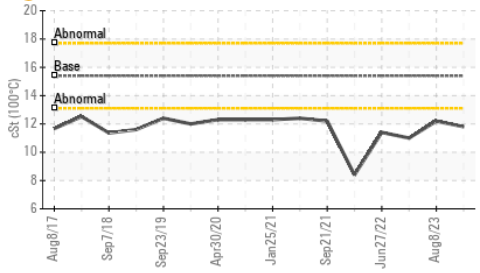
Silicon (ppm)



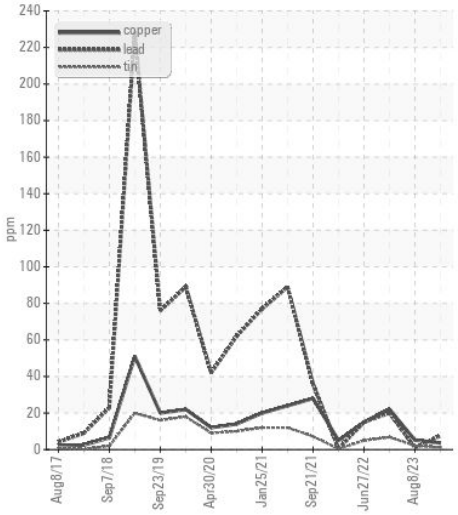
Ferrous Alloys



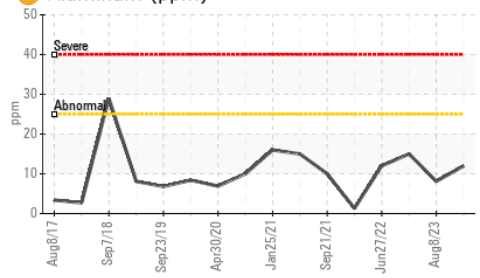
Viscosity @ 100°C



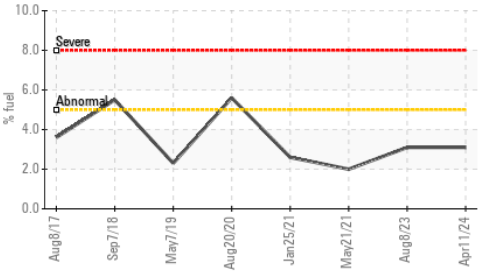
Non-ferrous Metals



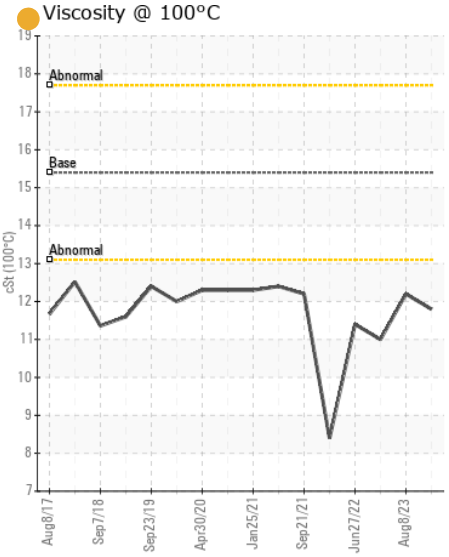
Aluminum (ppm)



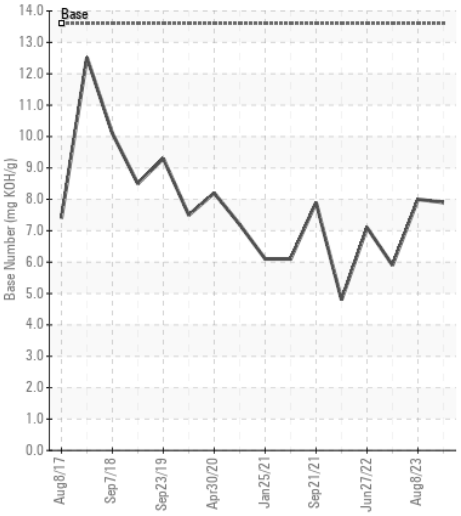
Fuel Dilution



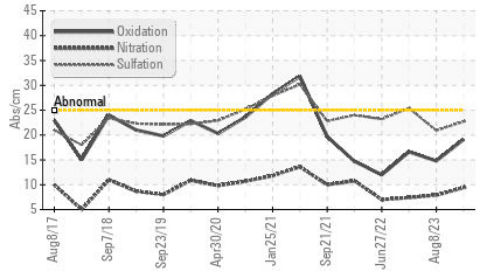
Viscosity @ 100°C



Base Number



FT-IR (Direct Trend)



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0206194 **Received** : 17 Apr 2024
Lab Number : 06151760 **Tested** : 22 Apr 2024
Unique Number : 10981838 **Diagnosed** : 22 Apr 2024 - Jonathan Hester
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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