James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
JOHN DEERE 844L 1DW844LXEKF697338
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (40 QTS)

RECOMMENDATION

Oil and 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

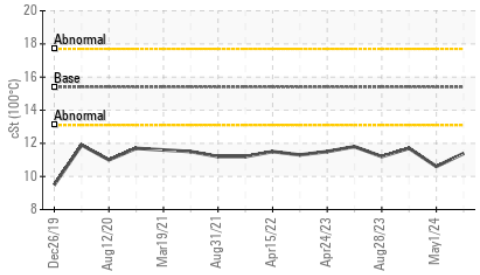
Fuel content negligible. There is no indication of any contamination in the oil.

FLUID CONDITION

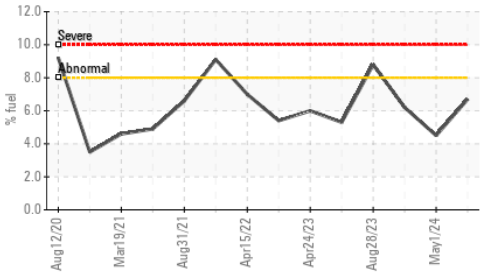
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0225304	JR0214744	JR0189900
Sample Date		Client Info		08 Jul 2024	01 May 2024	24 Oct 2023
Machine Age	hrs	Client Info		8488	7980	7483
Oil Age	hrs	Client Info		508	497	412
Filter Age	hrs	Client Info		0	0	412
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
PQ		ASTM D8184	>50	20	---	---
Iron	ppm	ASTM D5185m	>51	20	21	23
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	0	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	7	8	10
Lead	ppm	ASTM D5185m	>26	8	4	5
Copper	ppm	ASTM D5185m	>26	7	4	6
Tin	ppm	ASTM D5185m	>4	1	<1	1
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	>22	8	11	15
Potassium	ppm	ASTM D5185m	>20	2	<1	3
Fuel	%	ASTM D3524	>8.0	6.7	4.5	6.2
Water	%	ASTM D6304	>0.21	0.157	---	---
ppm Water	ppm	ASTM D6304	>2100	1570	---	---
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	9.4	8.9	9.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.4	23.3	23.3
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	>0.21	0.2%	NEG	NEG
Sodium	ppm	ASTM D5185m	>31	8	8	3
Boron	ppm	ASTM D5185m		108	117	138
Barium	ppm	ASTM D5185m		0	0	4
Molybdenum	ppm	ASTM D5185m		242	196	249
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		757	656	738
Calcium	ppm	ASTM D5185m		1479	1799	1337
Phosphorus	ppm	ASTM D5185m		880	861	765
Zinc	ppm	ASTM D5185m		989	998	983
Sulfur	ppm	ASTM D5185m		3814	3578	3283
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.2	18.0	18.3
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.3	7.3	7.7
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.39	▲ 10.6	▲ 11.7

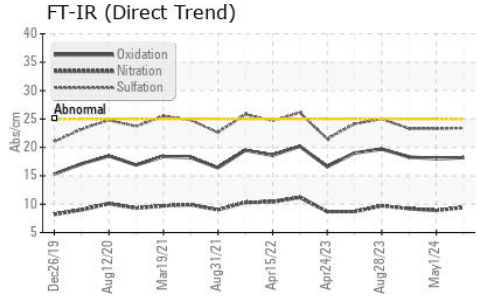
Viscosity @ 100°C



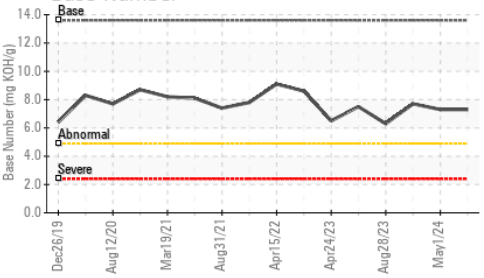
Fuel Dilution



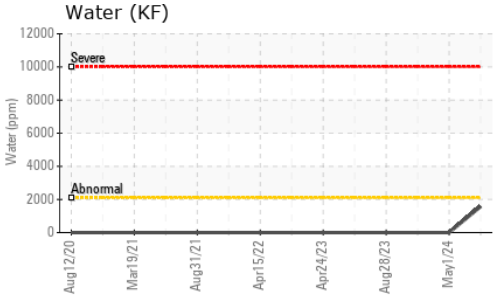
FT-IR (Direct Trend)



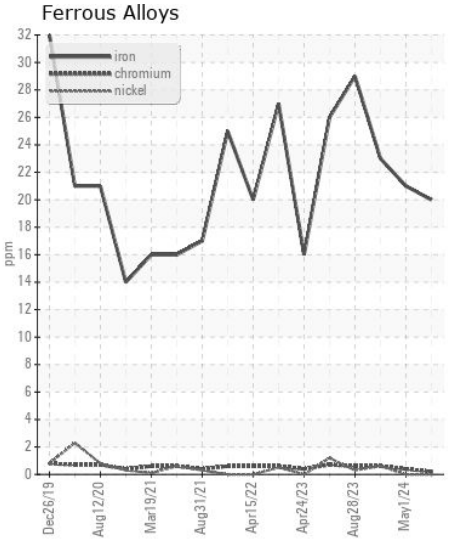
Base Number



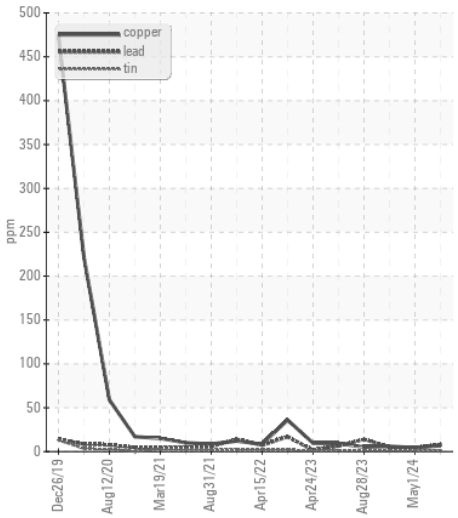
Water (KF)



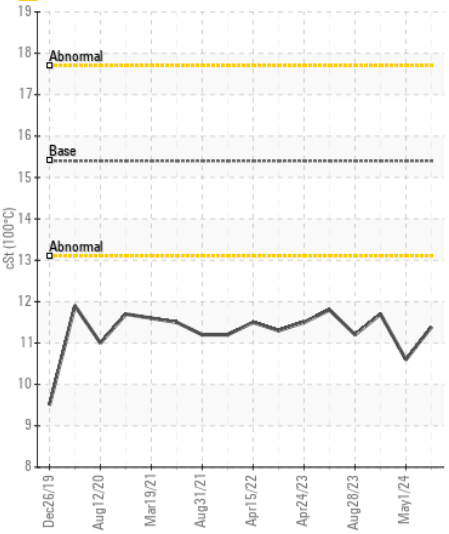
Ferrous Alloys



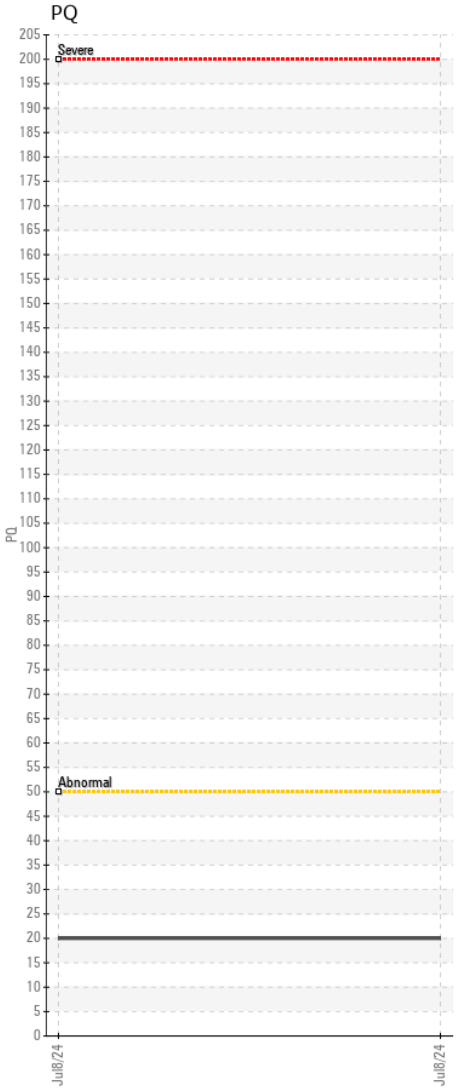
Non-ferrous Metals



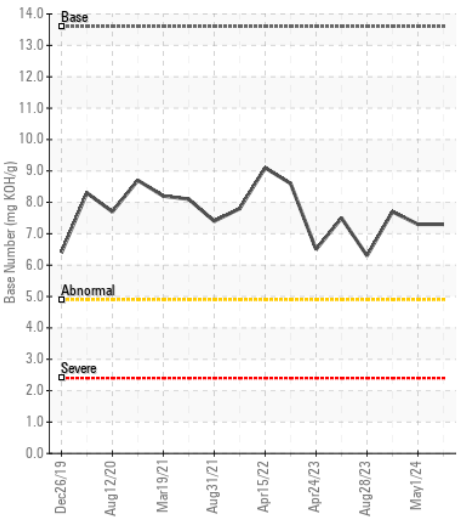
Viscosity @ 100°C



PQ



Base Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0225304
Lab Number : 06231781
Unique Number : 11115274
Test Package : CONST (Additional Tests: FUELDILUTION, Glycol, KF, KV40, PercentFuel, PQ, TBN)

Received : 09 Jul 2024
Tested : 16 Jul 2024
Diagnosed : 16 Jul 2024 - Jonathan Hester

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Certificate L2367

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)