CONST

James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	MARGINAL

Area
[W52632 ADVANSIX]
Machine Id
JOHN DEERE 824K 1DW824KXTHF680767
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

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

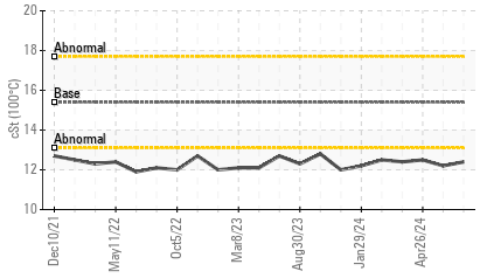
There is no indication of any contamination in the oil.

FLUID CONDITION

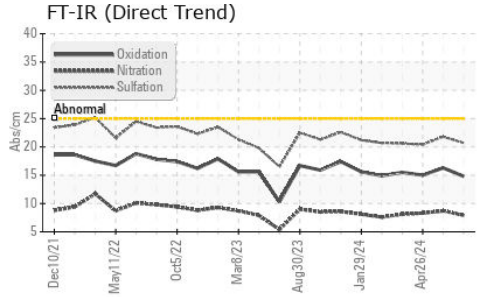
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0212028	JR0212210	JR0211507
Sample Date		Client Info		24 Jun 2024	29 May 2024	26 Apr 2024
Machine Age	hrs	Client Info		12044	11678	11156
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				MARGINAL	MARGINAL	NORMAL
Iron	ppm	ASTM D5185m	>51	6	5	9
Chromium	ppm	ASTM D5185m	>11	<1	0	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>31	4	5	8
Lead	ppm	ASTM D5185m	>26	1	1	3
Copper	ppm	ASTM D5185m	>26	2	<1	2
Tin	ppm	ASTM D5185m	>4	<1	<1	1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	7	6	11
Potassium	ppm	ASTM D5185m	>20	3	2	5
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	0.1	0.3	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.9	8.7	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.7	21.8	20.4
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	>0.21	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m	>31	2	5	6
Boron	ppm	ASTM D5185m		228	214	308
Barium	ppm	ASTM D5185m		2	0	0
Molybdenum	ppm	ASTM D5185m		221	201	289
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		687	647	816
Calcium	ppm	ASTM D5185m		1426	1398	2388
Phosphorus	ppm	ASTM D5185m		835	875	1370
Zinc	ppm	ASTM D5185m		1058	991	1612
Sulfur	ppm	ASTM D5185m		3081	3397	5229
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.8	16.3	15.0
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.3	7.8	7.5
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.4	▲ 12.2	12.5

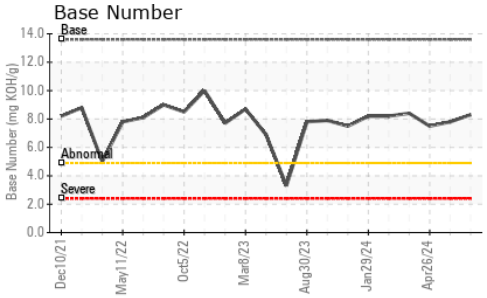
Viscosity @ 100°C



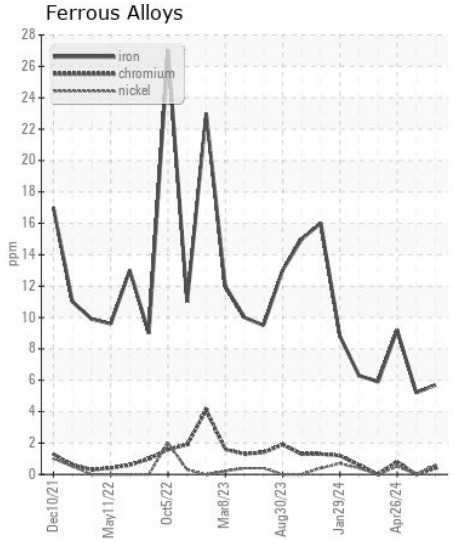
FT-IR (Direct Trend)



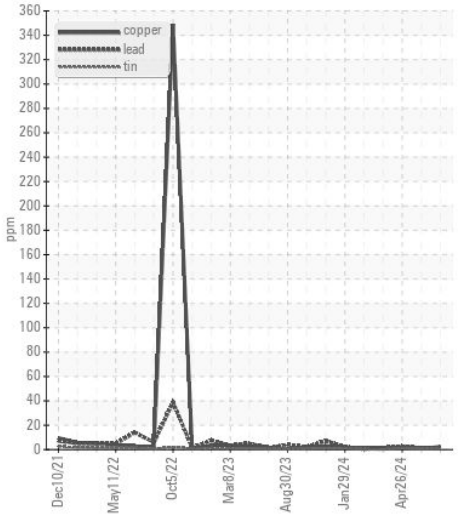
Base Number



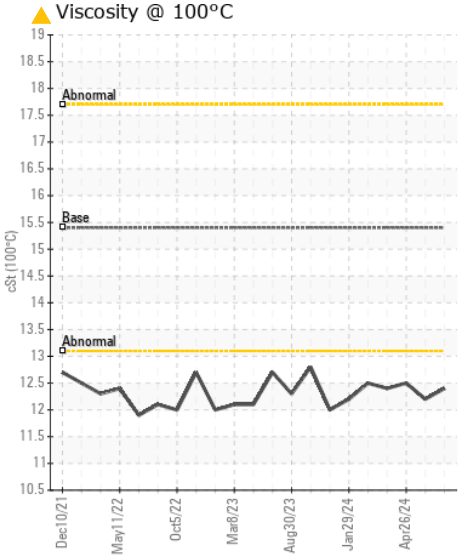
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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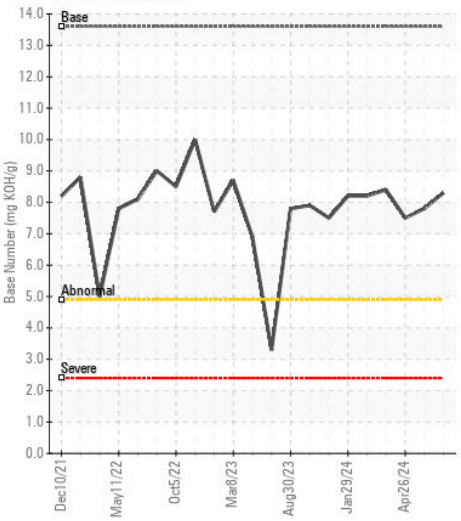

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0212028 **Received** : 25 Jun 2024
Lab Number : 06219500 **Tested** : 26 Jun 2024
Unique Number : 11097697 **Diagnosed** : 26 Jun 2024 - 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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