James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[MCKIM EXCAVATION]
Machine Id
JOHN DEERE 317G 1P0317GJHPJ436467
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

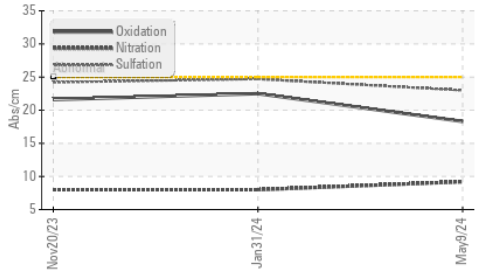
There is no indication of any contamination in the oil.

FLUID CONDITION

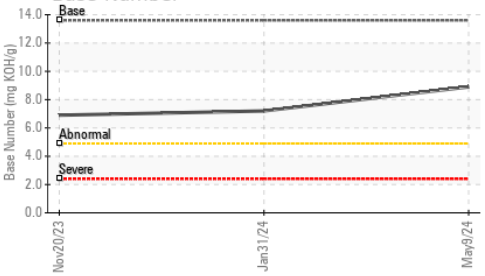
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0195592	JR0195580	JR0184702
Sample Date		Client Info		09 May 2024	31 Jan 2024	20 Nov 2023
Machine Age	hrs	Client Info		820	425	223
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				NORMAL	NORMAL	ATTENTION
Iron	ppm	ASTM D5185m	>51	20	16	23
Chromium	ppm	ASTM D5185m	>11	<1	0	0
Nickel	ppm	ASTM D5185m	>5	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	10	6	6
Lead	ppm	ASTM D5185m	>26	2	<1	2
Copper	ppm	ASTM D5185m	>26	6	8	38
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	20	15	37
Potassium	ppm	ASTM D5185m	>20	<1	1	3
Fuel		WC Method	>2.1	<1.0	<1.0	1.7
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.6	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	9.2	8.0	8.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.0	24.7	24.2
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	2	3
Boron	ppm	ASTM D5185m		276	252	199
Barium	ppm	ASTM D5185m		0	<1	0
Molybdenum	ppm	ASTM D5185m		257	240	241
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		826	809	589
Calcium	ppm	ASTM D5185m		1475	1470	1627
Phosphorus	ppm	ASTM D5185m		946	911	799
Zinc	ppm	ASTM D5185m		1057	1076	994
Sulfur	ppm	ASTM D5185m		3349	3190	3301
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.3	22.5	21.6
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.9	7.2	6.9
Visc @ 100°C	cSt	ASTM D445	15.4	12.9	12.9	12.3

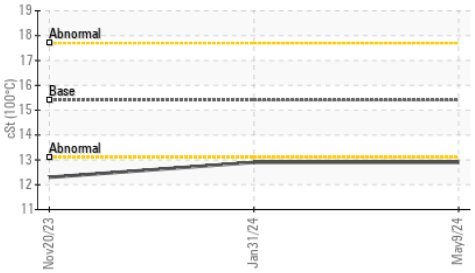
FT-IR (Direct Trend)



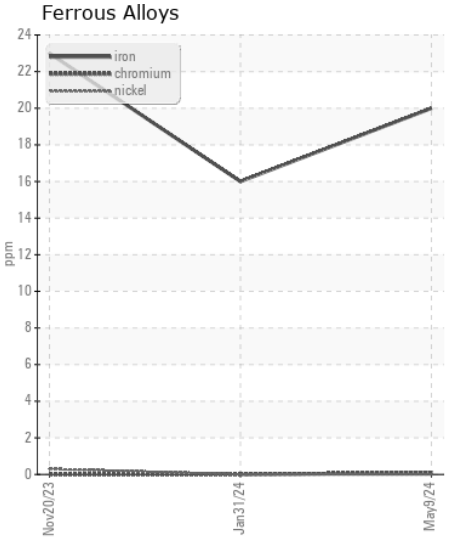
Base Number



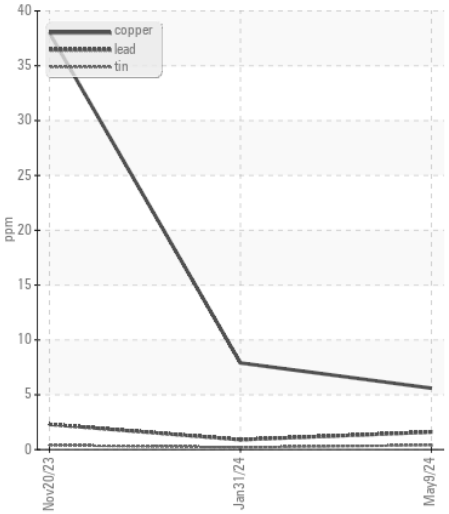
Viscosity @ 100°C



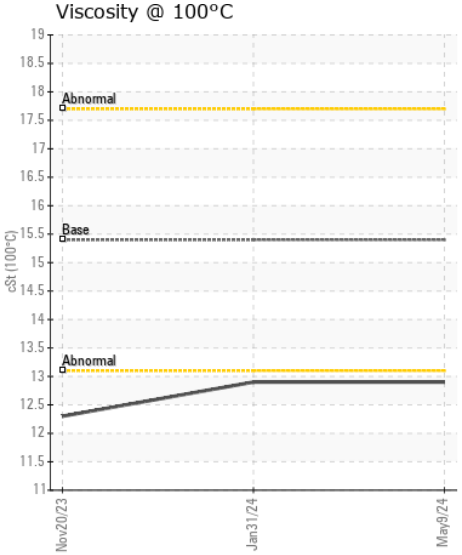
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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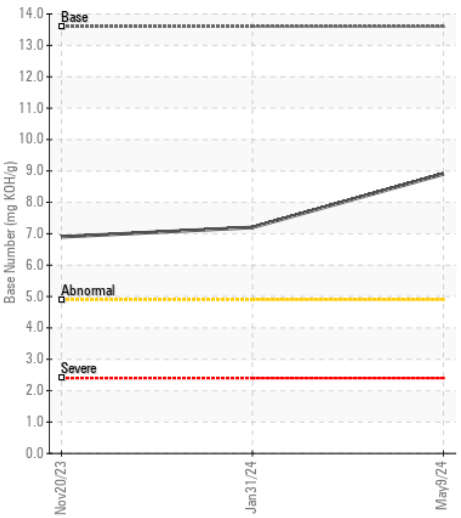

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0195592
Lab Number : 06175256
Unique Number : 11021309
Test Package : CONST (Additional Tests: TBN)

Received : 10 May 2024
Tested : 13 May 2024
Diagnosed : 13 May 2024 - Wes Davis

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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