James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
4012
Component
Diesel Engine
Fluid
SHELL ROTELLA T 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

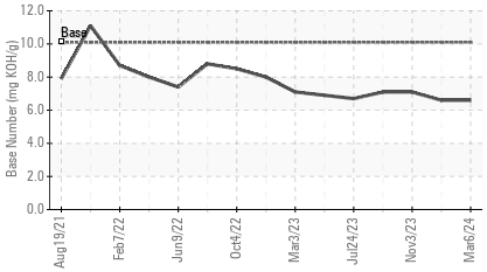
There is no indication of any contamination in the oil.

FLUID CONDITION

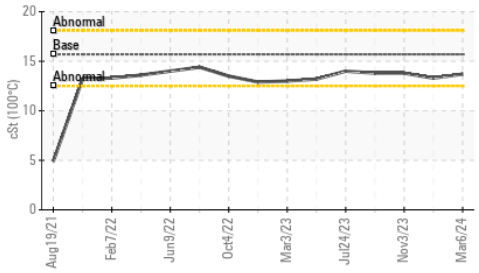
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**JR0210333**	JR0195151	JR0184538
Sample Date		Client Info		**06 Mar 2024**	04 Jan 2024	03 Nov 2023
Machine Age	hrs	Client Info		**750**	16023	15634
Oil Age	hrs	Client Info		**16380**	500	250
Filter Age	hrs	Client Info		**16380**	500	250
Oil Changed		Client Info		**Changed**	Changed	Changed
Filter Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**NORMAL**	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	**11**	7	8
Chromium	ppm	ASTM D5185m	>20	**1**	<1	<1
Nickel	ppm	ASTM D5185m	>2	**<1**	0	<1
Titanium	ppm	ASTM D5185m	>2	**<1**	0	<1
Silver	ppm	ASTM D5185m	>2	**0**	0	<1
Aluminum	ppm	ASTM D5185m	>25	**3**	2	2
Lead	ppm	ASTM D5185m	>40	**2**	2	<1
Copper	ppm	ASTM D5185m	>330	**2**	3	7
Tin	ppm	ASTM D5185m	>15	**<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	>25	**5**	5	5
Potassium	ppm	ASTM D5185m	>20	**2**	2	2
Fuel		WC Method	>5	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG
Soot %	%	*ASTM D7844	>3	**0.5**	0.5	0.4
Nitration	Abs/cm	*ASTM D7624	>20	**9.4**	8.8	7.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	**20.0**	19.5	18.1
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		**1**	<1	0
Boron	ppm	ASTM D5185m	316	**3**	3	3
Barium	ppm	ASTM D5185m	0.0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	1.2	**4**	<1	4
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	24	**50**	50	48
Calcium	ppm	ASTM D5185m	2292	**2519**	2350	2425
Phosphorus	ppm	ASTM D5185m	1064	**904**	977	890
Zinc	ppm	ASTM D5185m	1160	**1108**	1138	1091
Sulfur	ppm	ASTM D5185m	4996	**3830**	3808	3822
Oxidation	Abs/.1mm	*ASTM D7414	>25	**13.9**	13.4	11.3
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	**6.6**	6.6	7.1
Visc @ 100°C	cSt	ASTM D445	15.7	**13.7**	13.3	13.8

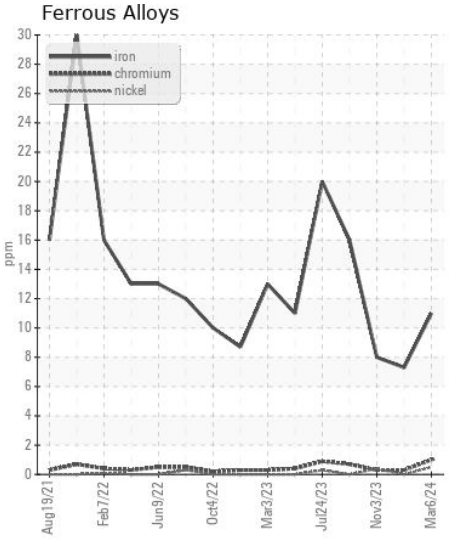
Base Number



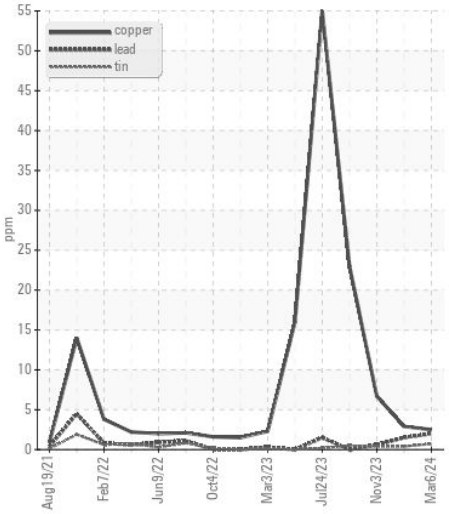
Viscosity @ 100°C



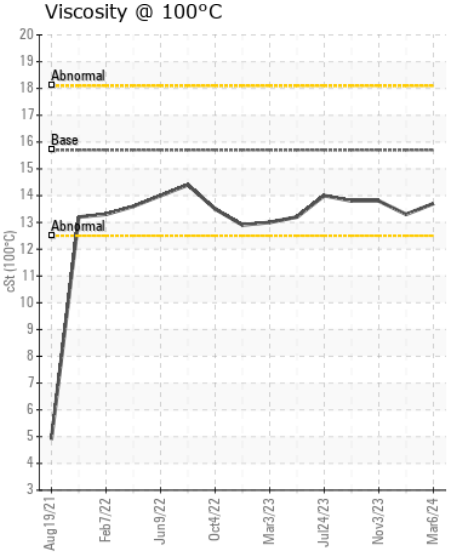
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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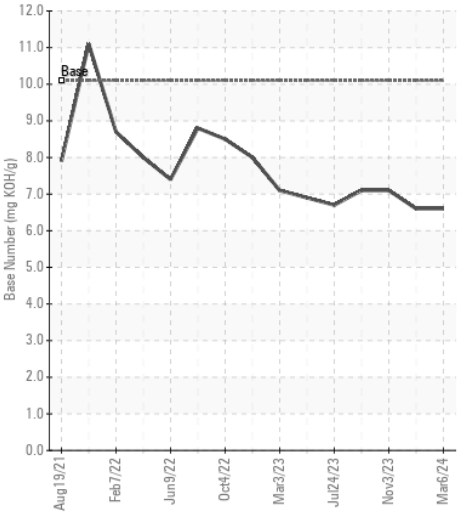

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0210333
Lab Number : 06123511
Unique Number : 10937662
Test Package : CONST (Additional Tests: TBN)

Received : 20 Mar 2024
Tested : 21 Mar 2024
Diagnosed : 21 Mar 2024 - Wes Davis

PATRIOT DEVELOPMENT CORP
22721 LADBROOK DRIVE STE 120
STERLING, VA
US 20166
Contact: ROBERT MOSS
robert.moss@patriotdev.net
T:
F:

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)