James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
INTERNATIONAL 4700 V44
Component
Diesel Engine
Fluid
CAT DIESEL ENGINE OIL 15W40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

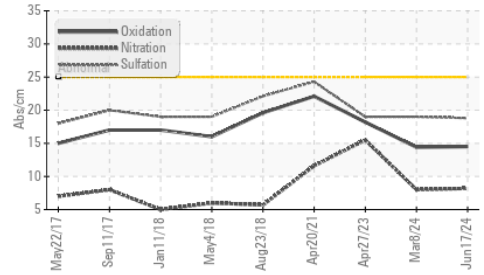
Sodium and/or potassium levels are high.

FLUID CONDITION

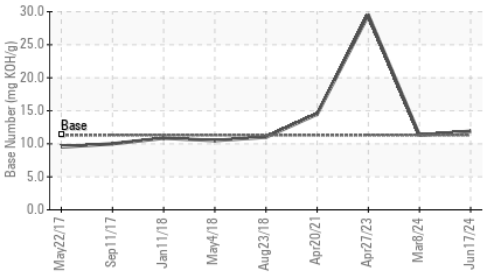
The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0219549	JR0203837	JR0118711
Sample Date		Client Info		17 Jun 2024	08 Mar 2024	27 Apr 2023
Machine Age	hrs	Client Info		4074	2324	1927
Oil Age	hrs	Client Info		2147	397	413
Filter Age	hrs	Client Info		1750	397	413
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	SEVERE
Iron	ppm	ASTM D5185m	>100	20	16	70
Chromium	ppm	ASTM D5185m	>20	<1	0	2
Nickel	ppm	ASTM D5185m	>4	<1	0	3
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	6	4	3
Lead	ppm	ASTM D5185m	>40	8	6	▲ 55
Copper	ppm	ASTM D5185m	>330	23	18	▲ 98
Tin	ppm	ASTM D5185m	>15	1	<1	3
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	13	12	23
Potassium	ppm	ASTM D5185m	>20	15	11	▲ 160
Fuel		WC Method	>2.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	▲ 0.20
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.4
Nitration	Abs/cm	*ASTM D7624	>20	8.2	8.0	15.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.8	19.0	19.0
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	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		▲ 573	▲ 460	▲ 3691
Boron	ppm	ASTM D5185m		174	174	68
Barium	ppm	ASTM D5185m		2	0	0
Molybdenum	ppm	ASTM D5185m		307	246	383
Manganese	ppm	ASTM D5185m		1	<1	3
Magnesium	ppm	ASTM D5185m		829	748	432
Calcium	ppm	ASTM D5185m		1395	1191	1117
Phosphorus	ppm	ASTM D5185m		917	841	726
Zinc	ppm	ASTM D5185m	1460	1110	966	921
Sulfur	ppm	ASTM D5185m		2911	3103	2742
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.5	14.4	18.2
Base Number (BN)	mg KOH/g	ASTM D2896	11.3	11.9	11.3	29.5
Visc @ 100°C	cSt	ASTM D445	15.5	13.8	13.8	▲ 117

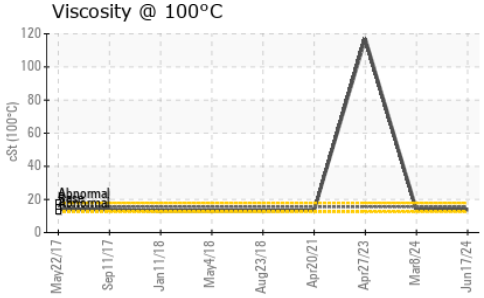
FT-IR (Direct Trend)



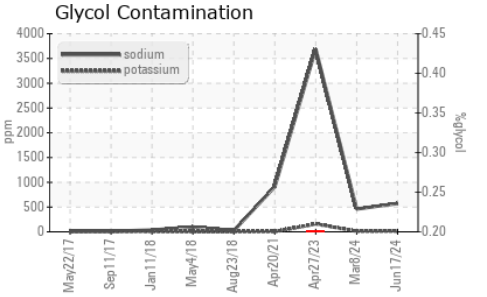
Base Number



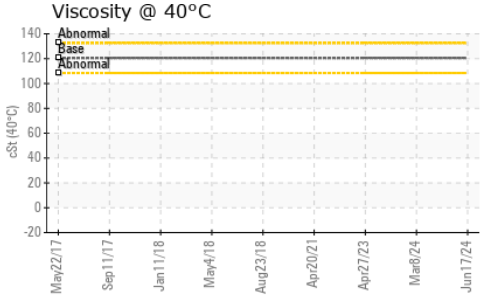
Viscosity @ 100°C



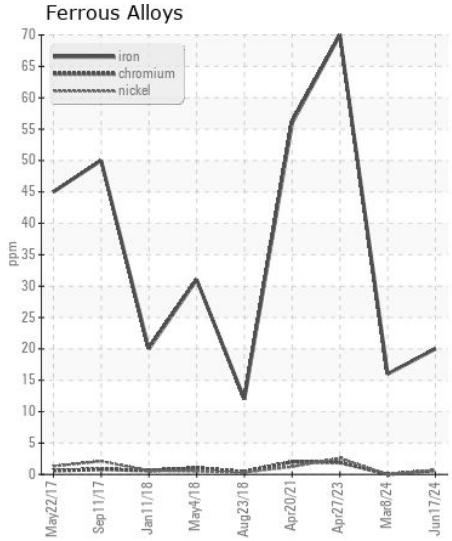
Glycol Contamination



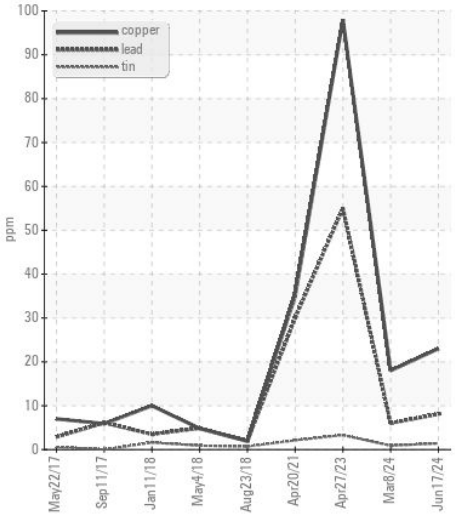
Viscosity @ 40°C



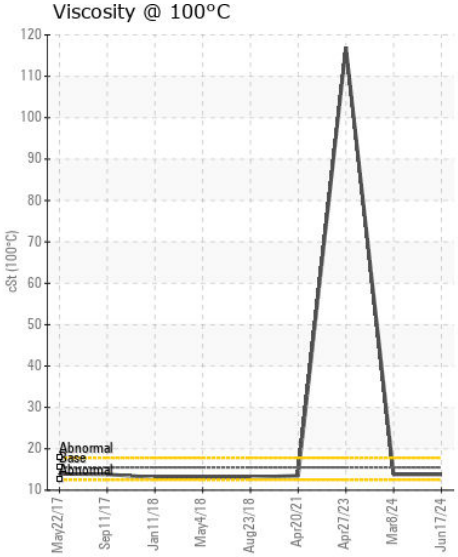
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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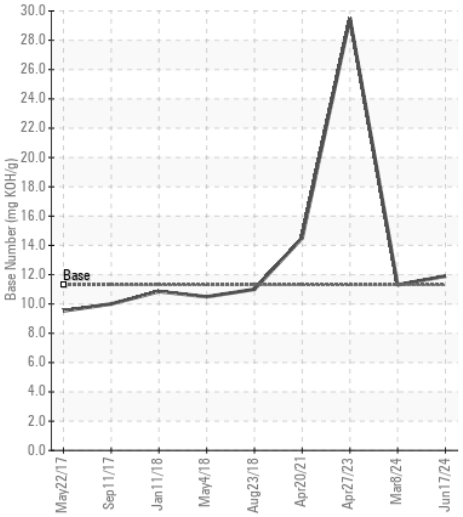

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0219549
Lab Number : 06225812
Unique Number : 11109305
Test Package : CONST (Additional Tests: Glycol, KV40, TBN)

Received : 02 Jul 2024
Tested : 03 Jul 2024
Diagnosed : 03 Jul 2024 - Jonathan Hester

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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