James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION

Machine Id
MORBARK 1300B 1503
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

WEAR

All component wear rates are normal.

CONTAMINATION

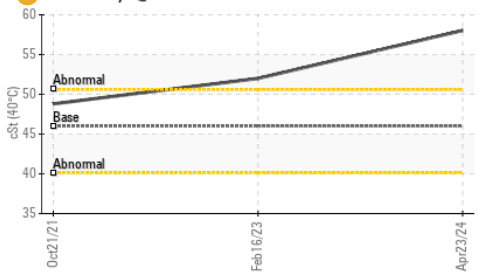
Moderate concentration of visible dirt/debris present in the oil.

FLUID CONDITION

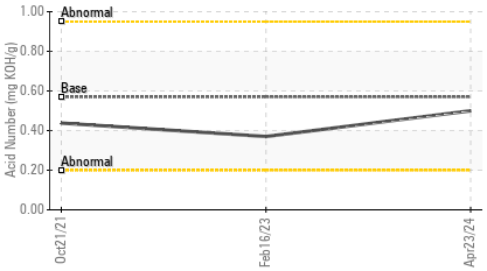
The oil viscosity is higher than normal. Confirm oil type. The AN level is acceptable for this fluid.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0204705	JR0157903	JR0099969
Sample Date		Client Info		23 Apr 2024	16 Feb 2023	21 Oct 2021
Machine Age	hrs	Client Info		4192	4613	4153
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
PQ		ASTM D8184		19	19	22
Iron	ppm	ASTM D5185m	>20	12	17	17
Chromium	ppm	ASTM D5185m	>10	0	0	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	0	0	<1
Lead	ppm	ASTM D5185m	>10	0	<1	0
Copper	ppm	ASTM D5185m	>75	<1	3	4
Tin	ppm	ASTM D5185m	>10	0	0	<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	>20	0	1	<1
Potassium	ppm	ASTM D5185m	>20	0	1	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	---	▲ 10986	▲ 56062
Particles >6µm		ASTM D7647	>1300	---	● 1812	▲ 4969
Particles >14µm		ASTM D7647	>160	---	79	▲ 170
Particles >21µm		ASTM D7647	>40	---	16	▲ 61
Particles >38µm		ASTM D7647	>10	---	1	▲ 11
Particles >71µm		ASTM D7647	>3	---	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	---	▲ 21/18/13	▲ 23/19/15
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	NONE	LIGHT
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	>0.1	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		<1	0	0
Boron	ppm	ASTM D5185m	5	2	0	2
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	5	4	1	1
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	25	16	5	2
Calcium	ppm	ASTM D5185m	200	187	102	136
Phosphorus	ppm	ASTM D5185m	300	412	376	372
Zinc	ppm	ASTM D5185m	370	479	423	473
Sulfur	ppm	ASTM D5185m	2500	1404	868	946
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.50	0.37	0.438
Visc @ 40°C	cSt	ASTM D445	46	● 58.03	52.0	48.8

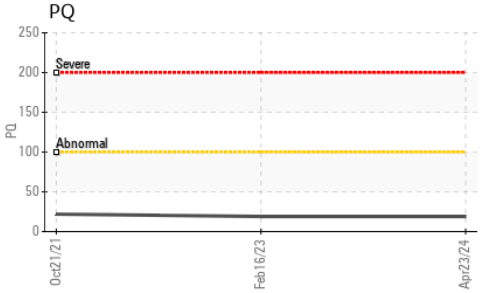
Viscosity @ 40°C



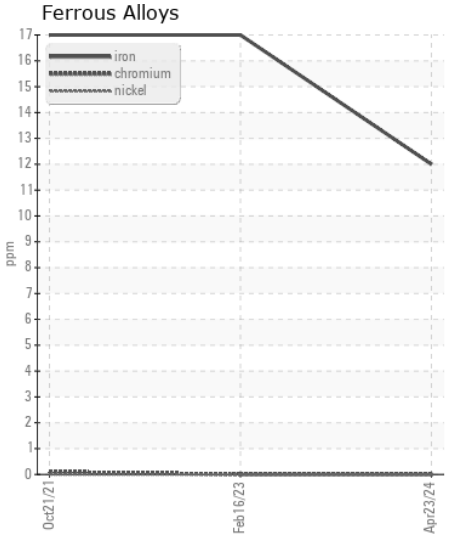
Acid Number



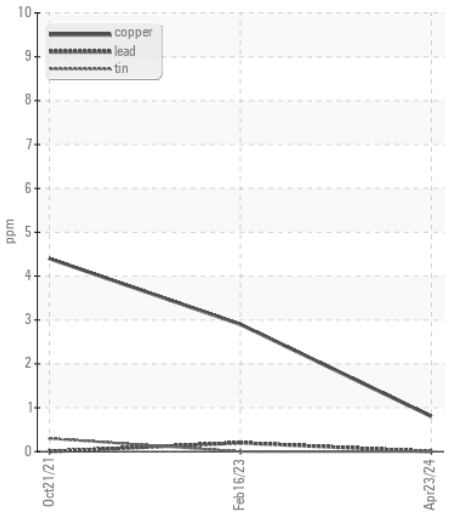
PQ



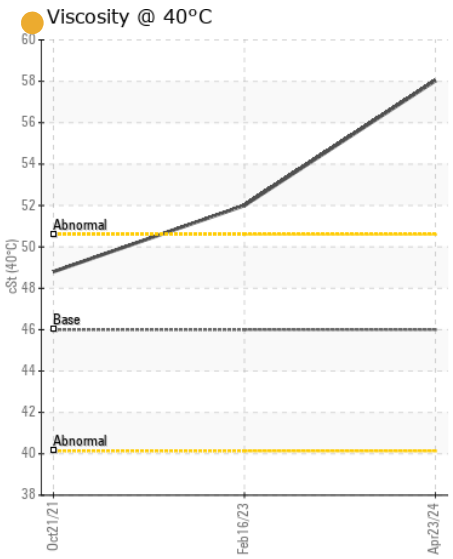
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



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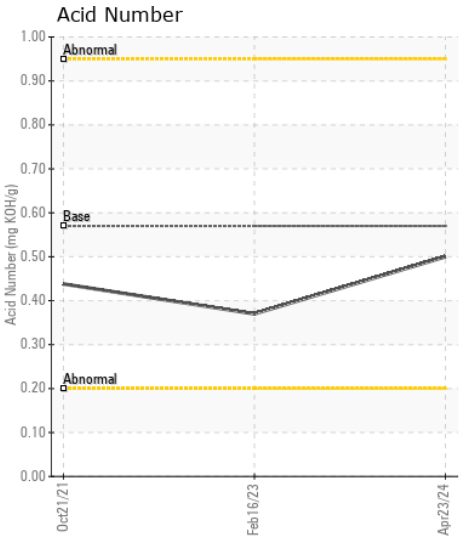

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0204705
Lab Number : 06158990
Unique Number : 10994413
Test Package : CONST (Additional Tests: PQ)

Received : 24 Apr 2024
Tested : 30 Apr 2024
Diagnosed : 30 Apr 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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