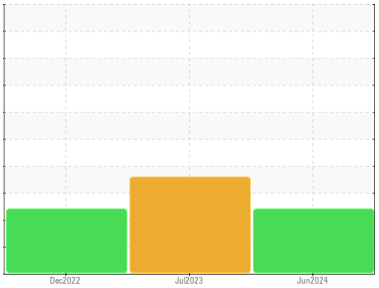
OIL ANALYSIS REPORT

OIL DIAGNOSTICS

Area
FRONT LOAD
Machine Id
FEL187674
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 32 (--- GAL)

Sample Rating Trend



ISO

DIAGNOSIS

Recommendation
Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

Wear
All component wear rates are normal.

Contamination
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition
The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PCA0122598**	PCA0090807	PCA0078053
Sample Date		Client Info		**06 Jun 2024**	31 Jul 2023	27 Dec 2022
Machine Age	hrs	Client Info		**10502**	10502	8422
Oil Age	hrs	Client Info		**10502**	9643	8422
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**SEVERE**	SEVERE	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**13**	16	14
Chromium	ppm	ASTM D5185m	>10	**6**	6	3
Nickel	ppm	ASTM D5185m	>4	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>5	**0**	<1	<1
Lead	ppm	ASTM D5185m	>4	**0**	<1	0
Copper	ppm	ASTM D5185m	>15	**4**	2	4
Tin	ppm	ASTM D5185m	>4	**0**	<1	<1
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	**0**	<1	3
Barium	ppm	ASTM D5185m	5	**0**	0	0
Molybdenum	ppm	ASTM D5185m	5	**<1**	1	2
Manganese	ppm	ASTM D5185m		**0**	0	<1
Magnesium	ppm	ASTM D5185m	25	**5**	13	7
Calcium	ppm	ASTM D5185m	200	**101**	114	120
Phosphorus	ppm	ASTM D5185m	300	**355**	347	367
Zinc	ppm	ASTM D5185m	370	**468**	440	453
Sulfur	ppm	ASTM D5185m	2500	**1152**	1180	1231

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**1**	1	2
Sodium	ppm	ASTM D5185m		**4**	3	4
Potassium	ppm	ASTM D5185m	>20	**<1**	<1	11

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **75205**	▲ 163266	▲ 329378
Particles >6µm		ASTM D7647	>1300	● **2452**	▲ 36221	▲ 114482
Particles >14µm		ASTM D7647	>160	● **181**	117	▲ 9381
Particles >21µm		ASTM D7647	>40	**33**	34	▲ 2527
Particles >38µm		ASTM D7647	>10	**2**	2	▲ 66
Particles >71µm		ASTM D7647	>3	**0**	0	1
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **23/18/15**	▲ 25/22/14	▲ 26/24/20

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	**0.34**	0.37	0.47

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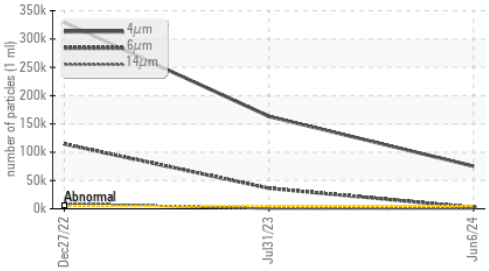
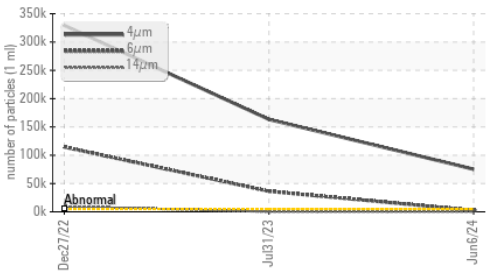
OIL ANALYSIS REPORT

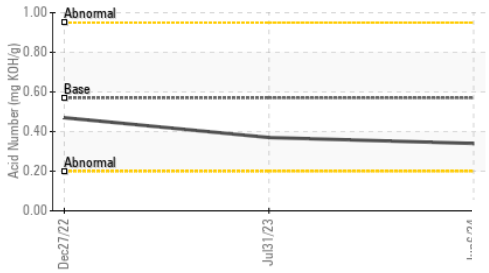
Particle Trend



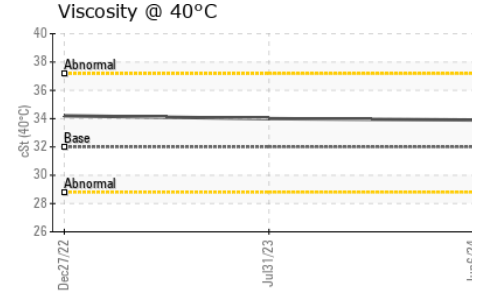
Particle Trend



Acid Number

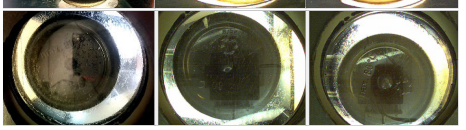


Viscosity @ 40°C



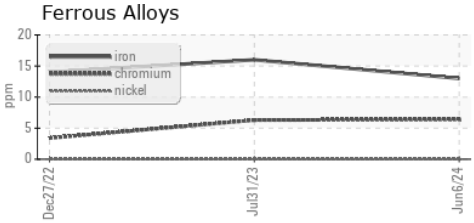
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32	**33.9**	34.0	34.2

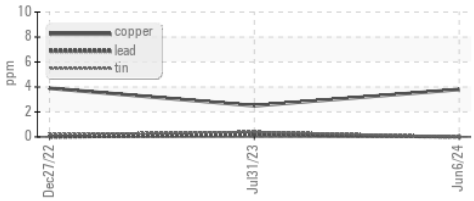
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

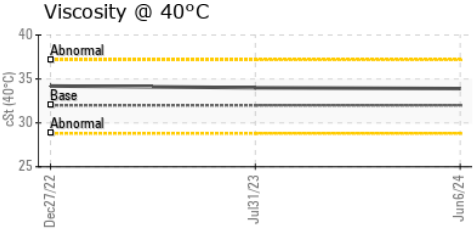
Ferrous Alloys



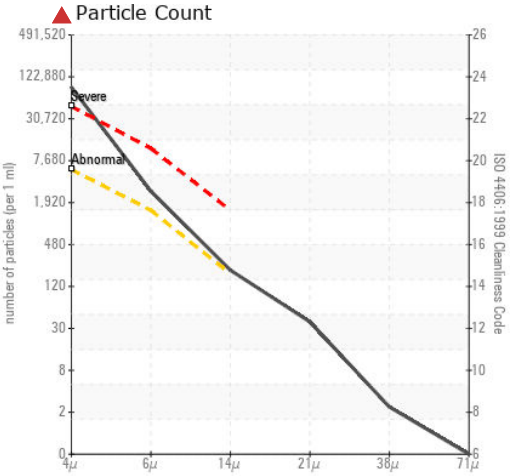
Non-ferrous Metals



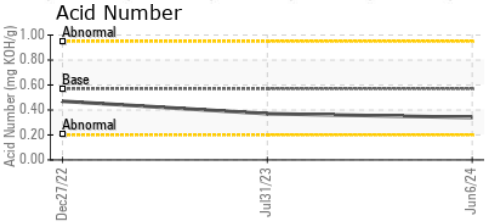
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0122598
Lab Number : 06210065
Unique Number : 11082929
Test Package : MOB 2

Received : 14 Jun 2024
Tested : 17 Jun 2024
Diagnosed : 17 Jun 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)

UMM - Shop 401 - Norton
186 South Washington Street
Norton, MA
US 02766
Contact: P Cohen
pcohen@win-waste.com
T:
F:

Report Id: WINNORMA [WUSCAR] 06210065 (Generated: 06/17/2024 13:36:30) Rev: 1

Submitted By: P Cohen