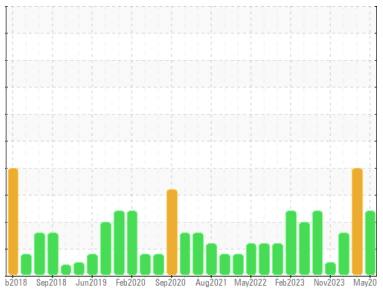
OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Area
DERIND
Machine Id
AFECO B37528 - NORTH DERIND
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (25 GAL)

DIAGNOSIS

Recommendation
We advise that you check for the source of water entry. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear
All component wear rates are normal.

Contamination
Appearance is milky. There is a high concentration of water present in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition
The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0921282**	WC0885450	WC0850273
Sample Date		Client Info		**17 May 2024**	20 Feb 2024	26 Nov 2023
Machine Age	mths	Client Info		**0**	0	0
Oil Age	mths	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	SEVERE	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**1**	1	<1
Chromium	ppm	ASTM D5185m	>10	**<1**	0	0
Nickel	ppm	ASTM D5185m	>10	**0**	<1	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m		**<1**	0	0
Aluminum	ppm	ASTM D5185m	>10	**<1**	<1	<1
Lead	ppm	ASTM D5185m	>10	**<1**	<1	0
Copper	ppm	ASTM D5185m	>75	**0**	<1	0
Tin	ppm	ASTM D5185m	>10	**<1**	<1	0
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	**0**	0	0
Barium	ppm	ASTM D5185m	5	**0**	0	0
Molybdenum	ppm	ASTM D5185m	5	**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	25	**<1**	2	0
Calcium	ppm	ASTM D5185m	200	**3**	3	<1
Phosphorus	ppm	ASTM D5185m	300	**448**	439	429
Zinc	ppm	ASTM D5185m	370	**12**	<1	0
Sulfur	ppm	ASTM D5185m	2500	**592**	519	476

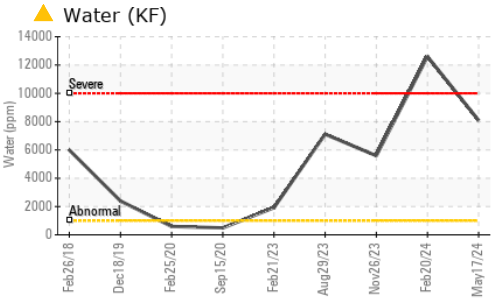
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**3**	2	2
Sodium	ppm	ASTM D5185m		**3**	4	2
Potassium	ppm	ASTM D5185m	>20	**2**	3	0
Water	%	ASTM D6304	>0.1	▲ **0.809**	▲ 1.26	▲ 0.559
ppm Water	ppm	ASTM D6304	>1000	▲ **8090**	▲ 12600	▲ 5590

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**392**	---	922
Particles >6µm		ASTM D7647	>1300	**213**	---	502
Particles >14µm		ASTM D7647	>160	**36**	---	85
Particles >21µm		ASTM D7647	>40	**12**	---	29
Particles >38µm		ASTM D7647	>10	**2**	---	4
Particles >71µm		ASTM D7647	>3	**0**	---	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**16/15/12**	---	17/16/14

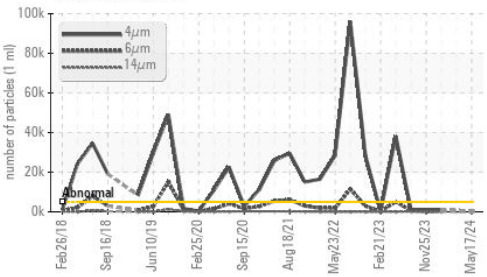
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	**0.30**	0.16	0.25

OIL ANALYSIS REPORT

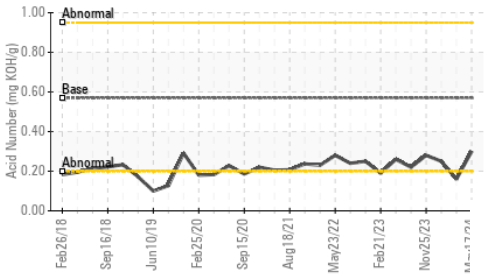
Water (KF)



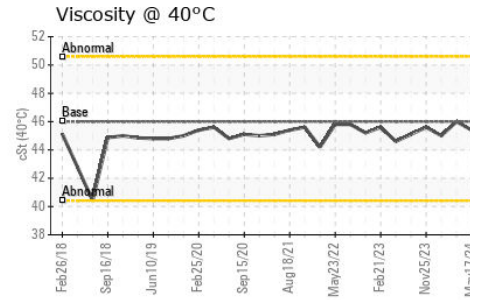
Particle Trend



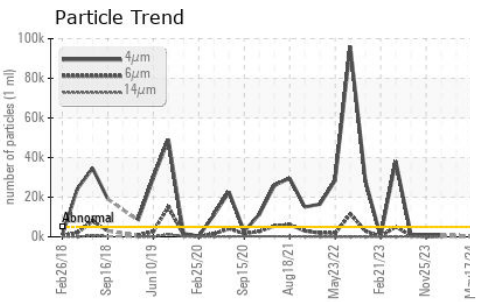
Acid Number



Viscosity @ 40°C



Particle Trend



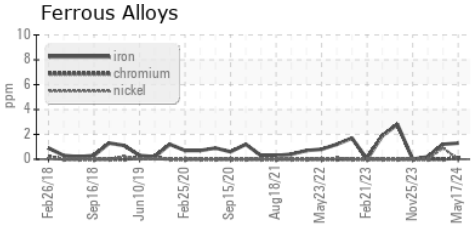
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**MILKY**	MILKY	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**0.2%**	0.2%	0.2%
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	**45.4**	46.0	45.0

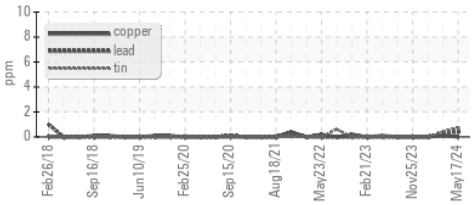
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

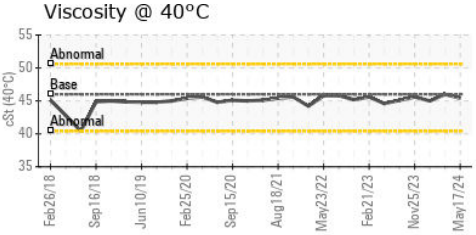
Ferrous Alloys



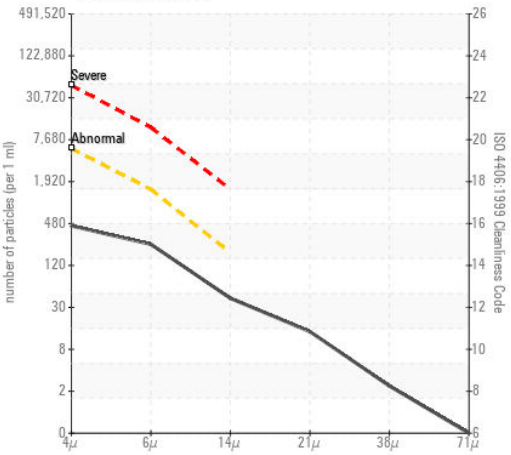
Non-ferrous Metals



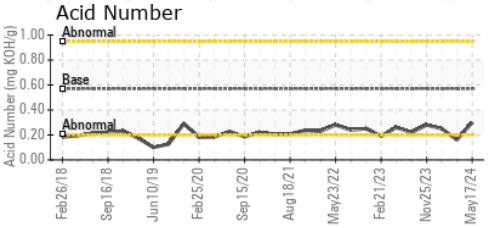
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0921282
Lab Number : 06193944
Unique Number : 11056067
Test Package : IND 2 (Additional Tests: KF)

Received : 29 May 2024
Tested : 03 Jun 2024
Diagnosed : 03 Jun 2024 - Jonathan Hester

Certificate L2367

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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