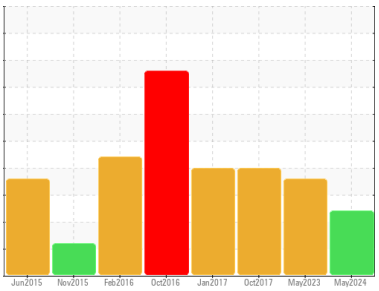
OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Machine Id
RACK B
Component
Refrigeration Compressor
Fluid
Copeland Ultra 32-3MAF (--- GAL)

DIAGNOSIS

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

Wear
The iron level has decreased, but is still abnormal.

Contamination
There is a light concentration of water present in the oil.

Fluid Condition
An increase in the AN level is noted. Confirmed. Confirm oil type.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC06195516**	WC05850586	WCI2288301
Sample Date		Client Info		**29 May 2024**	10 May 2023	31 Oct 2017
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**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	▲ **36**	▲ 50	▲ 89
Chromium	ppm	ASTM D5185m	>2	**0**	0	<1
Nickel	ppm	ASTM D5185m		**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	<1	0
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>3	**<1**	3	<1
Lead	ppm	ASTM D5185m	>2	**0**	<1	3
Copper	ppm	ASTM D5185m	>8	**5**	2	7
Tin	ppm	ASTM D5185m	>4	**1**	1	<1
Antimony	ppm	ASTM D5185m		**---**	---	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	<1

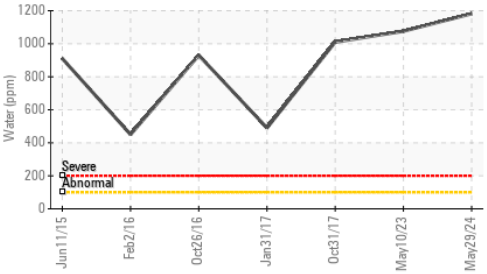
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**0**	0	0
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	0	**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	0
Magnesium	ppm	ASTM D5185m	0	**1**	8	0
Calcium	ppm	ASTM D5185m	0	**0**	0	0
Phosphorus	ppm	ASTM D5185m	600	**<1**	0	0
Zinc	ppm	ASTM D5185m	0	**10**	13	21
Sulfur	ppm	ASTM D5185m	50	**13**	0	6

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**4**	4	6
Sodium	ppm	ASTM D5185m		**<1**	0	0
Potassium	ppm	ASTM D5185m	>20	**1**	0	0
Water	%	ASTM D6304	>0.01	▲ **0.118**	▲ 0.107	▲ 0.101
ppm Water	ppm	ASTM D6304	>100	▲ **1182**	▲ 1076.1	▲ 1010

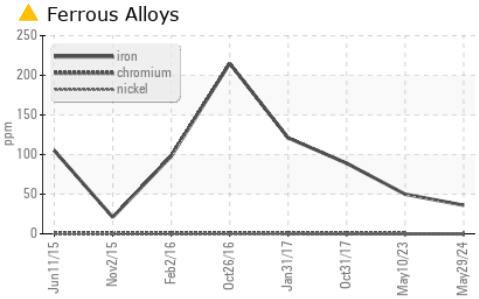
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974	0.05	**0.267**	0.177	0.737

OIL ANALYSIS REPORT

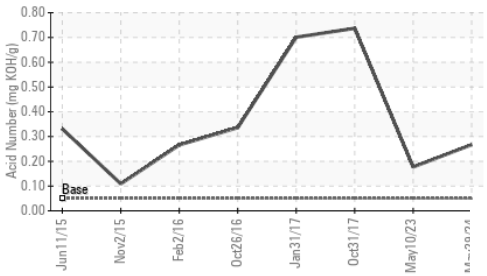
Water (KF)



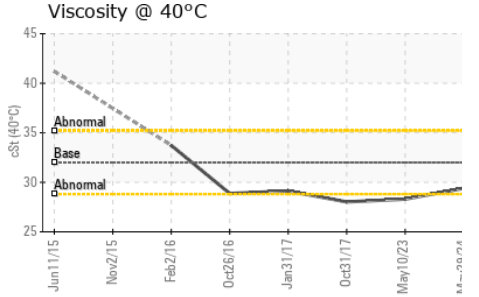
Ferrous Alloys



Acid Number

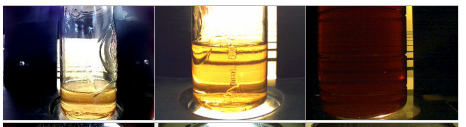


Viscosity @ 40°C



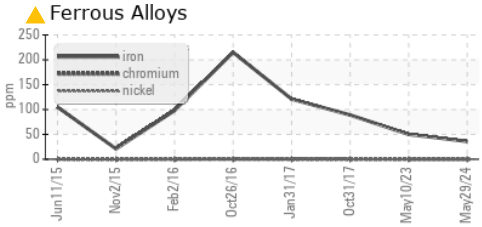
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32.0	**29.4**	28.3	28.02

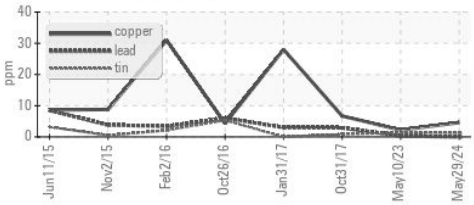
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

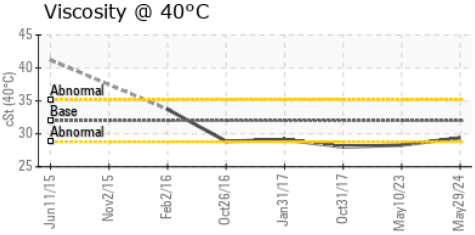
Ferrous Alloys



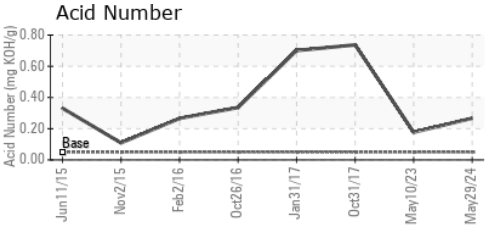
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC06195516
Lab Number : 06195516
Unique Number : 11057639
Test Package : IND 2

Received : 30 May 2024
Tested : 31 May 2024
Diagnosed : 02 Jun 2024 - Doug Bogart

ALMA FOODS
110 E 1ST
ALMA, KS
US 66401
Contact: JAY WHEELER

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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