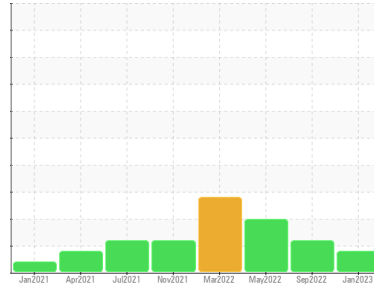




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
PPC
 Component
Hydraulic System
 Fluid
ECOSAFE FR-46 (--- QTS)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

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 condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0749059	WC0749056	WC0685140
Sample Date	Client Info		23 Jan 2023	22 Sep 2022	15 May 2022
Machine Age	mths	Client Info	6	0	0
Oil Age	mths	Client Info	6	0	0
Oil Changed	Client Info		Filtered	Not Changd	Filtered
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.05	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>20	5	2	2
Chromium	ppm	ASTM D5185m	>20	<1	0	0
Nickel	ppm	ASTM D5185m	>20	2	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	1
Silver	ppm	ASTM D5185m		<1	0	<1
Aluminum	ppm	ASTM D5185m	>20	1	<1	1
Lead	ppm	ASTM D5185m	>20	0	<1	<1
Copper	ppm	ASTM D5185m	>20	4	3	3
Tin	ppm	ASTM D5185m	>20	<1	1	1
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<1	1	4
Barium	ppm	ASTM D5185m		1	0	0
Molybdenum	ppm	ASTM D5185m		<1	<1	<1
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		2	<1	2
Calcium	ppm	ASTM D5185m		9	2	2
Phosphorus	ppm	ASTM D5185m		607	652	672
Zinc	ppm	ASTM D5185m		19	6	<1
Sulfur	ppm	ASTM D5185m		3343	4048	3067

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>15	2	<1	1
Sodium	ppm	ASTM D5185m		2	<1	0
Potassium	ppm	ASTM D5185m	>20	<1	<1	0

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 10452	▲ 16819	▲ 94539
Particles >6µm	ASTM D7647	>1300	1246	▲ 1151	▲ 10758
Particles >14µm	ASTM D7647	>160	41	20	▲ 321
Particles >21µm	ASTM D7647	>40	8	2	▲ 48
Particles >38µm	ASTM D7647	>10	0	0	3
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 21/17/13	▲ 21/17/11	▲ 24/21/16

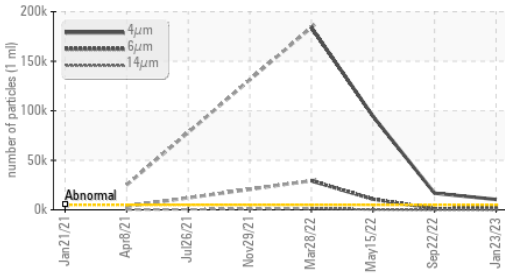
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.47	0.49	0.47

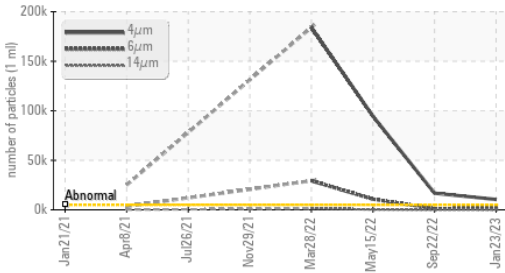


OIL ANALYSIS REPORT

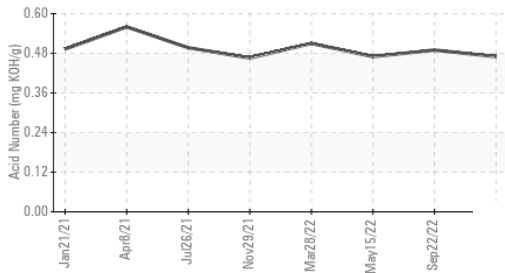
▲ Particle Trend



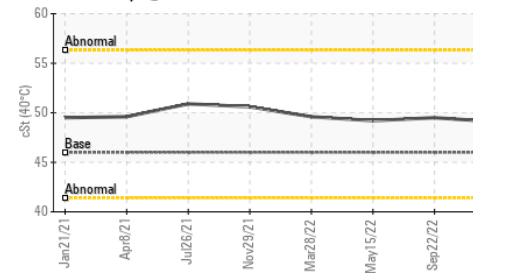
▲ Particle Trend



Acid Number



Viscosity @ 40°C



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

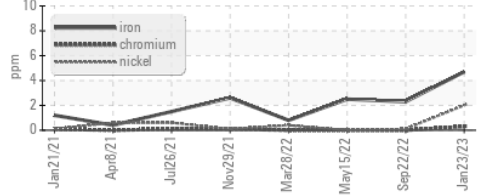
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	49.1	49.5	49.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
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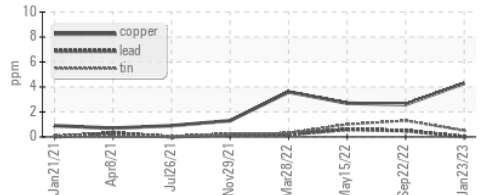


GRAPHS

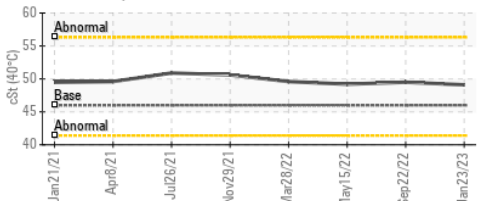
Ferrous Alloys



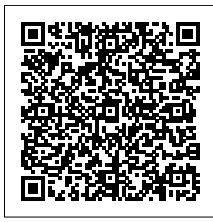
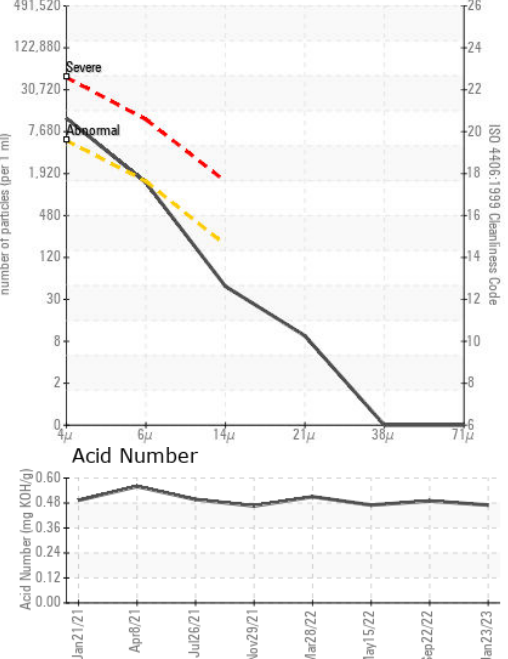
Non-ferrous Metals



Viscosity @ 40°C



▲ Particle Count



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0749059 **Received** : 24 Jan 2023
Lab Number : 05747913 **Diagnosed** : 25 Jan 2023
Unique Number : 10307517 **Diagnostician** : Angela Borella
Test Package : IND 2

ATI METALS - BAKERS - BNO
 6400 ALLOY WAY
 MONROE, NC
 US 28111
 Contact: JODEY BIRCHMORE
 jodey.birchmore@atimetals.com

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)