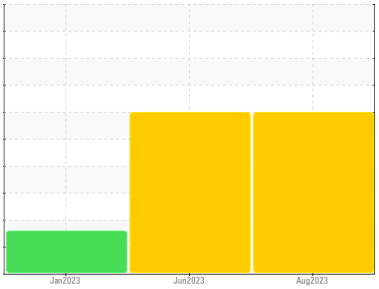
PROBLEM SUMMARY

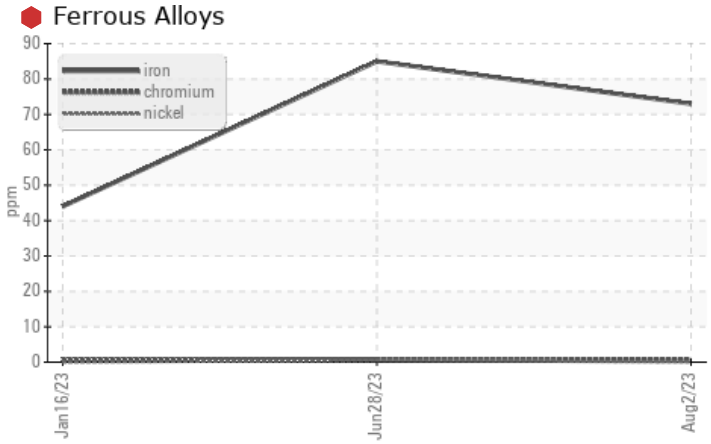
Sample Rating Trend



WEAR

Machine Id
HITACHI BL619
Component
Hydraulic System
Fluid
BIOFLO AW 46 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. (Customer Sample Comment: Sample number 2 for 3707 hours)

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	ABNORMAL
Iron	ppm	ASTM D5185m	>20	**73**	85	44

Customer Id: BRUABE
Sample No.: PE0002362
Lab Number: 05924140
Test Package: CONST

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

28 Jun 2023 Diag: Jonathan Hester

WEAR

We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.The iron level is abnormal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

16 Jan 2023 Diag: Don Baldridge

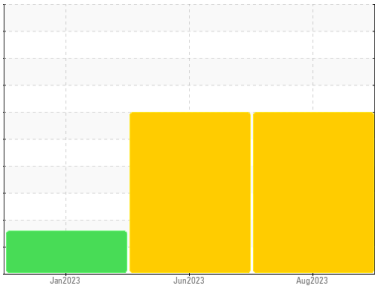
WEAR

No corrective action is recommended at this time. Resample at the next service interval to monitor.The iron level is abnormal. All other component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
HITACHI BL619
Component
Hydraulic System
Fluid
BIOFLO AW 46 (--- GAL)

DIAGNOSIS

Recommendation
We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. (Customer Sample Comment: Sample number 2 for 3707 hours)

Wear
The iron level is abnormal.

Contamination
There is no indication of any contamination 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. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PE0002362**	PE0002354	PE0000482
Sample Date		Client Info		**02 Aug 2023**	28 Jun 2023	16 Jan 2023
Machine Age	hrs	Client Info		**3707**	3707	3219
Oil Age	hrs	Client Info		**0**	3707	0
Oil Changed		Client Info		**Not Changd**	Not Changd	N/A
Sample Status				**SEVERE**	SEVERE	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**19**	21	7
Iron	ppm	ASTM D5185m	>20	**73**	85	44
Chromium	ppm	ASTM D5185m	>10	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>10	**0**	<1	0
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>10	**2**	3	3
Lead	ppm	ASTM D5185m	>10	**0**	1	<1
Copper	ppm	ASTM D5185m	>75	**1**	2	<1
Tin	ppm	ASTM D5185m	>10	**0**	0	0
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		**0**	1	0
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**<1**	0	2
Calcium	ppm	ASTM D5185m		**0**	0	3
Phosphorus	ppm	ASTM D5185m		**494**	526	431
Zinc	ppm	ASTM D5185m		**227**	253	155
Sulfur	ppm	ASTM D5185m		**1325**	1257	1041

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**4**	5	4
Sodium	ppm	ASTM D5185m		**1**	0	<1
Potassium	ppm	ASTM D5185m	>20	**0**	1	<1

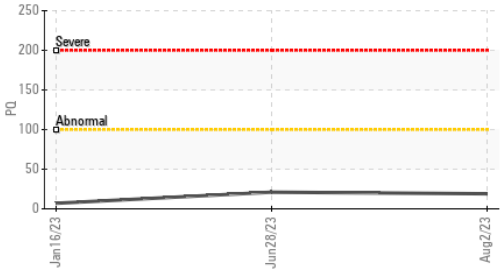
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**544**	1089	10580
Particles >6µm		ASTM D7647	>1300	**64**	108	1110
Particles >14µm		ASTM D7647	>160	**5**	3	15
Particles >21µm		ASTM D7647	>40	**3**	0	1
Particles >38µm		ASTM D7647	>10	**0**	0	0
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**16/13/10**	17/14/9	21/17/11

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**1.20**	1.12	0.73

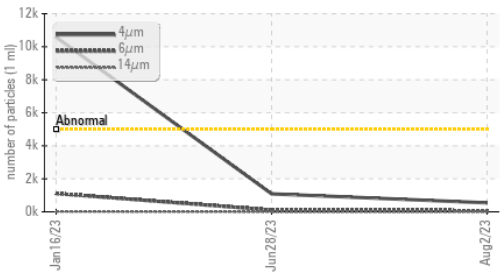
OIL ANALYSIS REPORT

PetroCard MORE THAN JUST FUEL.

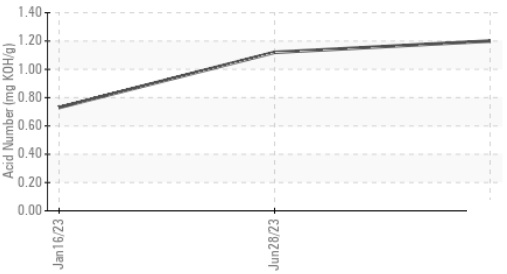
PQ



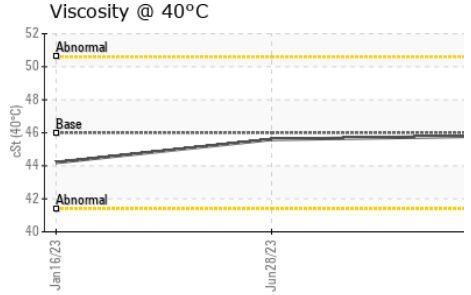
Particle Trend



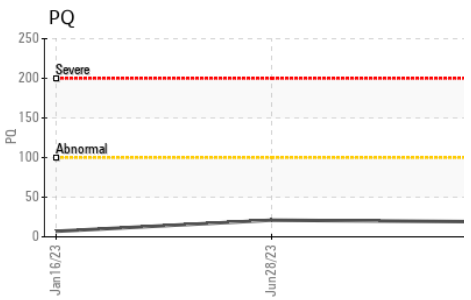
Acid Number



Viscosity @ 40°C



PQ



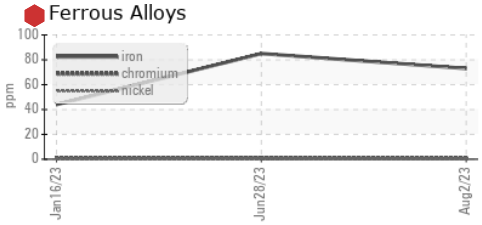
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**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	46	**45.8**	45.6	44.2

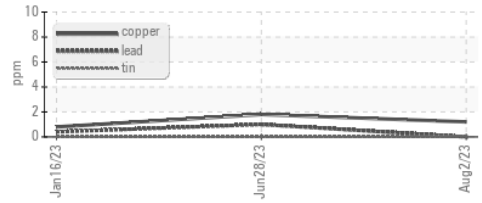
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

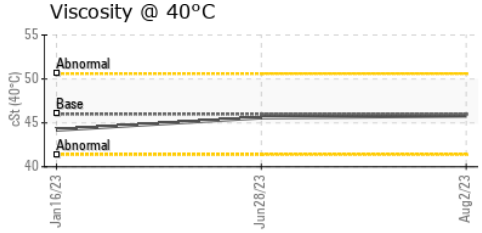
Ferrous Alloys



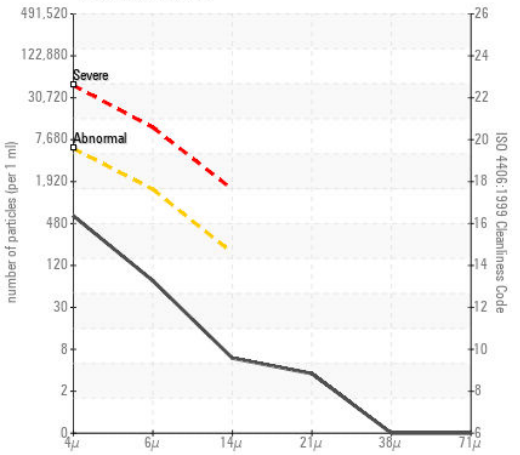
Non-ferrous Metals



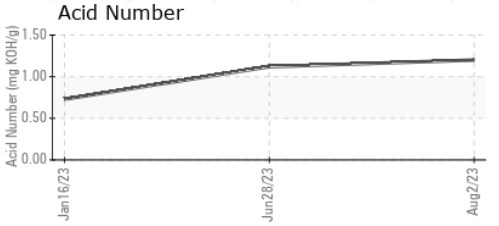
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0002362 **Received** : 14 Aug 2023
Lab Number : 05924140 **Diagnosed** : 15 Aug 2023
Unique Number : 10604087 **Diagnostician** : Don Baldridge
Test Package : CONST (Additional Tests: ICP, KV40, PQ, PrtCount, SCREEN)

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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ABERDEEN, WA
US 98520
Contact: JASEN CARTER
jasen@brumfieldinc.com
T: (360)470-9333
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Report Id: BRUABE [WUSCAR] 05924140 (Generated: 08/15/2023 15:29:47) Rev: 1

Submitted By: Sean McNealley