



OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

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

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)

Test	UOM	Method	Limit/Abn	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
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Filter Changed		Client Info		Not Changd	Not Changd	N/A
Sample Status				SEVERE	SEVERE	ABNORMAL

WEAR

The iron level is abnormal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
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
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

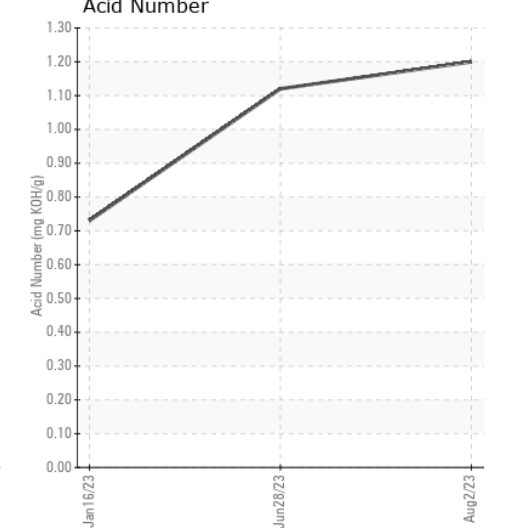
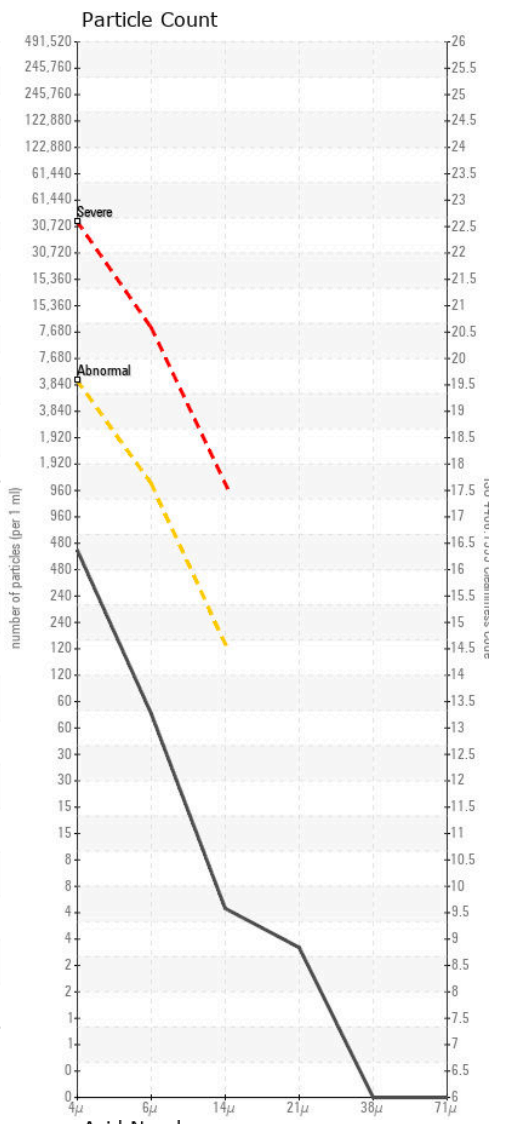
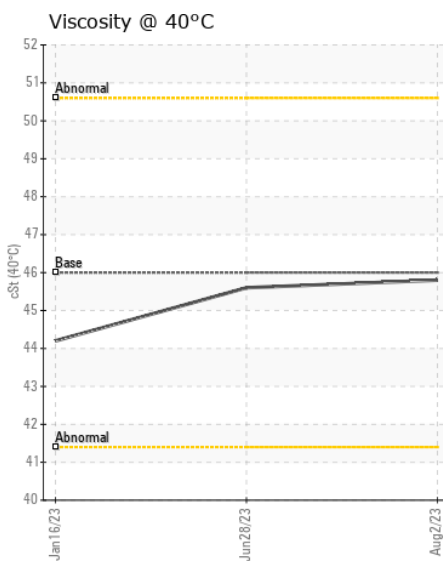
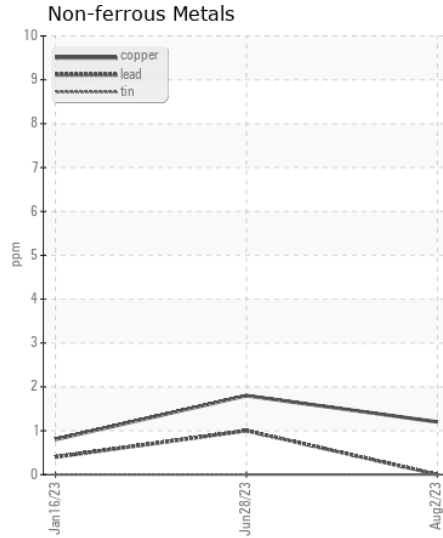
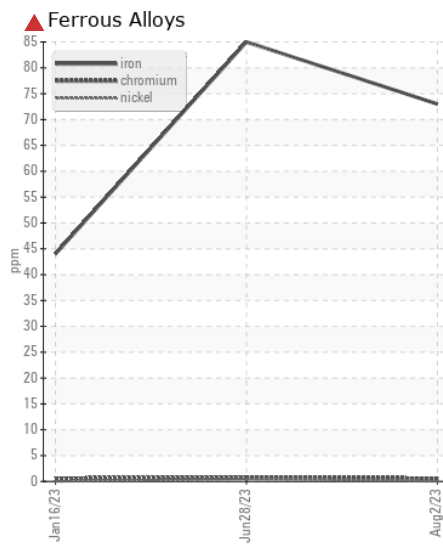
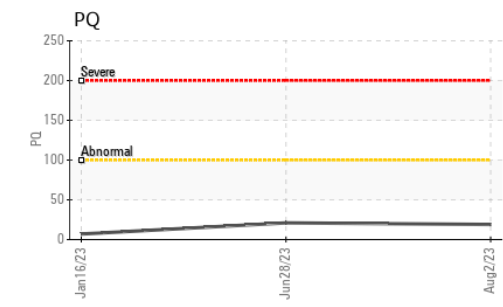
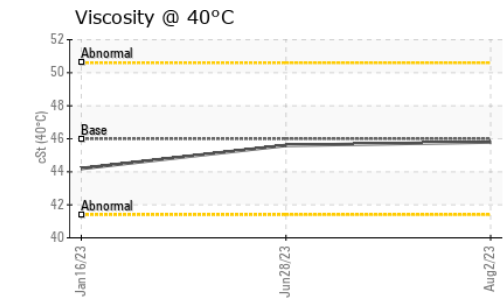
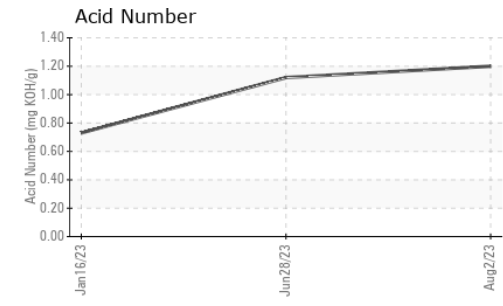
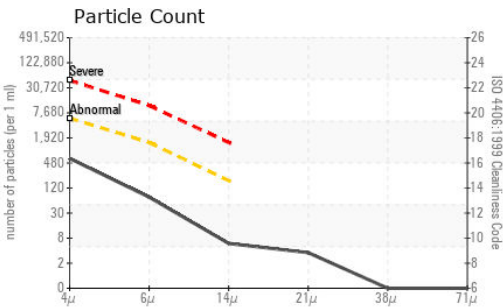
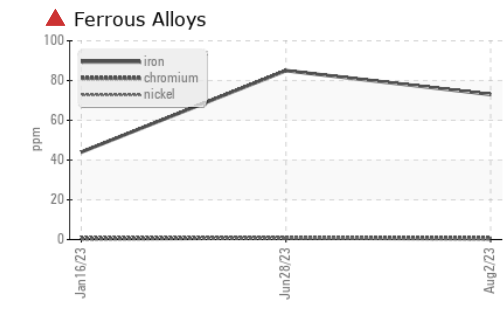
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>20	4	5	4
Potassium	ppm	ASTM D5185m	>20	0	1	<1
Water		WC Method	>0.1	NEG	NEG	NEG
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
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

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		1	0	<1
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
Acid Number (AN)	mg KOH/g	ASTM D8045		1.20	1.12	0.73
Visc @ 40°C	cSt	ASTM D445	46	45.8	45.6	44.2



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0002362 **Received** : 14 Aug 2023
Lab Number : 05924140 **Tested** : 15 Aug 2023
Unique Number : 10604087 **Diagnosed** : 15 Aug 2023 - Don Baldrige
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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