



WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Machine Id
HITACHI 470LC HCMJAG60T00060976

Component
Hydraulic System

Fluid
HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)

RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.

WEAR

All component wear rates are normal.

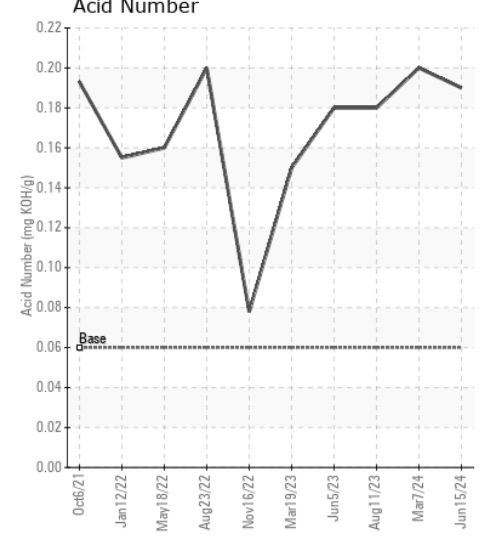
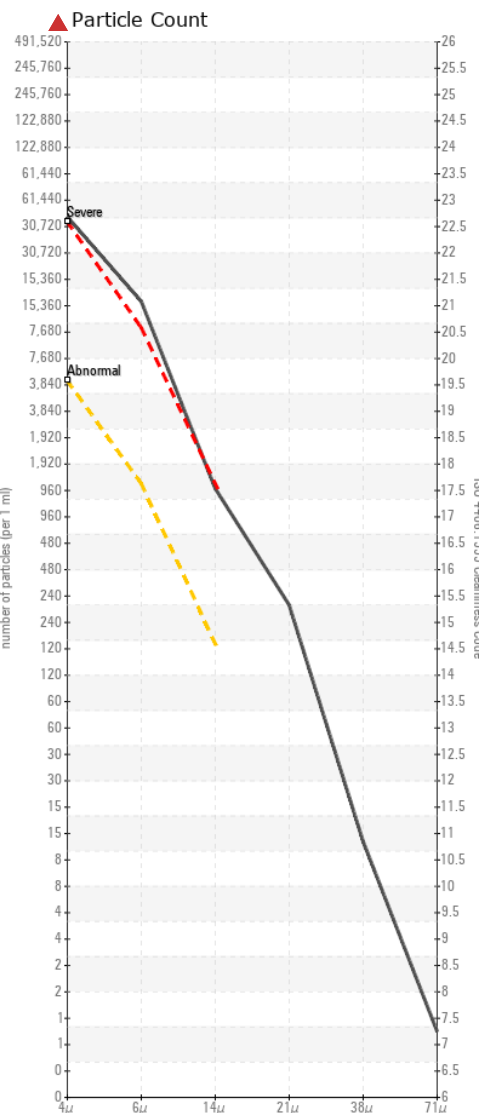
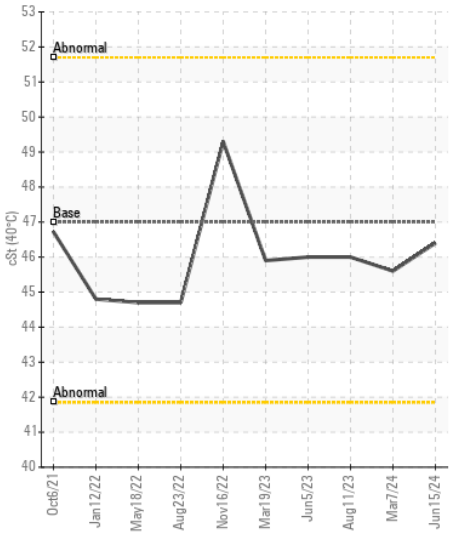
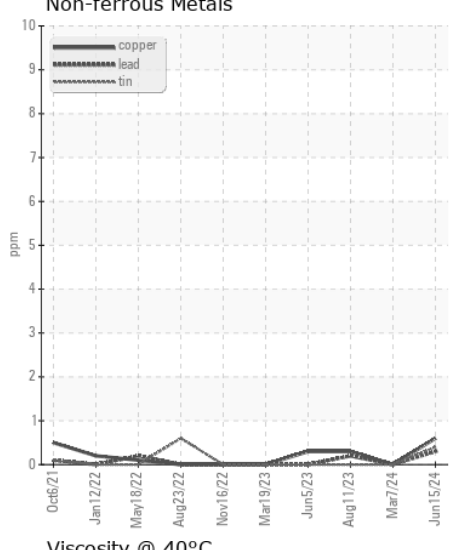
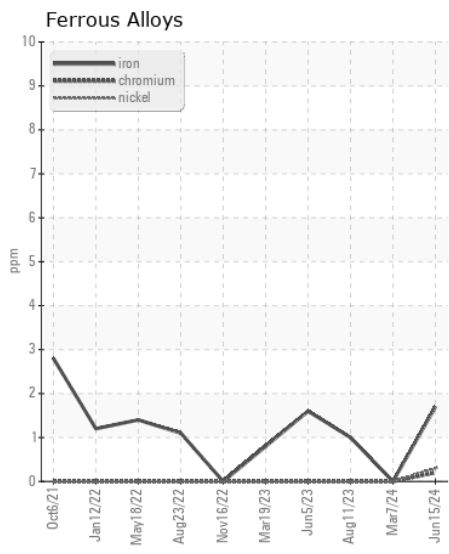
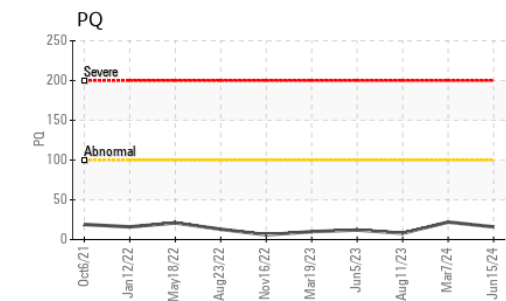
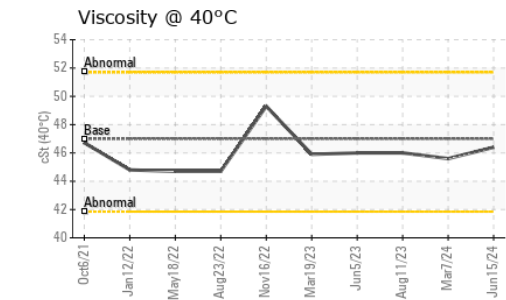
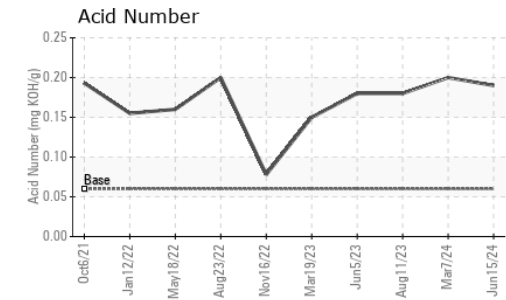
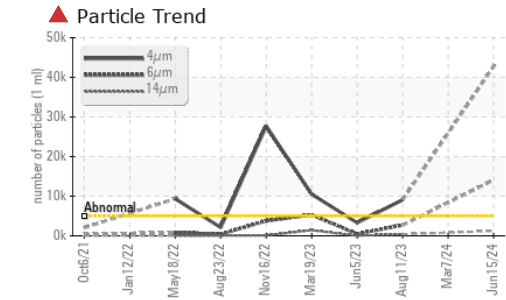
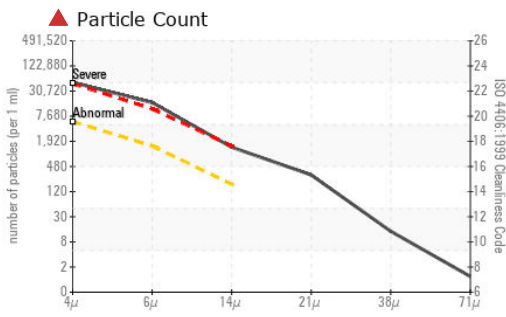
CONTAMINATION

There is a high amount of particulates (2 to 100 microns in size) present in the oil.

FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0220247	JR0205718	JR0178665
Sample Date		Client Info		15 Jun 2024	07 Mar 2024	11 Aug 2023
Machine Age	hrs	Client Info		7795	7252	6003
Oil Age	hrs	Client Info		4579	5285	4479
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Filter Changed		Client Info		Not Chngd	Changed	Changed
Sample Status				SEVERE	ABNORMAL	ABNORMAL
PQ		ASTM D8184		16	22	8
Iron	ppm	ASTM D5185m	>20	2	0	1
Chromium	ppm	ASTM D5185m	>10	<1	0	0
Nickel	ppm	ASTM D5185m	>10	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>10	2	0	<1
Lead	ppm	ASTM D5185m	>10	<1	0	<1
Copper	ppm	ASTM D5185m	>75	<1	0	<1
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	2	0	<1
Potassium	ppm	ASTM D5185m	>20	1	0	2
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 42710	---	▲ 9077
Particles >6µm		ASTM D7647	>1300	▲ 14115	---	▲ 2698
Particles >14µm		ASTM D7647	>160	▲ 1219	---	▲ 366
Particles >21µm		ASTM D7647	>40	▲ 265	---	▲ 94
Particles >38µm		ASTM D7647	>10	12	---	1
Particles >71µm		ASTM D7647	>3	1	---	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 23/21/17	---	▲ 20/19/16
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER	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
Sodium	ppm	ASTM D5185m		0	<1	1
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	0
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		<1	0	2
Calcium	ppm	ASTM D5185m		0	0	1
Phosphorus	ppm	ASTM D5185m	827	473	363	456
Zinc	ppm	ASTM D5185m	0	4	0	9
Sulfur	ppm	ASTM D5185m	13	923	821	1052
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.19	0.20	0.18
Visc @ 40°C	cSt	ASTM D445	47	46.4	45.6	46.0



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0220247 **Received** : 18 Jun 2024
Lab Number : 06213374 **Tested** : 19 Jun 2024
Unique Number : 11086238 **Diagnosed** : 19 Jun 2024 - Wes Davis
Test Package : CONST (Additional Tests: PQ)

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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)