



WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Area
[W47882]
 Machine Id
HITACHI 85USB-5 HCMDEF60K00021559
 Component
Hydraulic System
 Fluid
HITACHI HYDRAULIC SUPER EX 46HN (27 GAL)

RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: W47882)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0202337	JR0181418	JR0163825
Sample Date		Client Info		26 Feb 2024	08 Aug 2023	09 Mar 2023
Machine Age	hrs	Client Info		2145	1469	900
Oil Age	hrs	Client Info		2145	1469	0
Filter Age	hrs	Client Info		2145	1469	0
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Changed	Changed	Not Changed
Sample Status				ATTENTION	ATTENTION	ABNORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		13	14	17
Iron	ppm	ASTM D5185m	>20	8	17	0
Chromium	ppm	ASTM D5185m	>10	<1	<1	0
Nickel	ppm	ASTM D5185m	>10	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	<1	<1
Lead	ppm	ASTM D5185m	>10	0	2	0
Copper	ppm	ASTM D5185m	>75	7	14	0
Tin	ppm	ASTM D5185m	>10	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

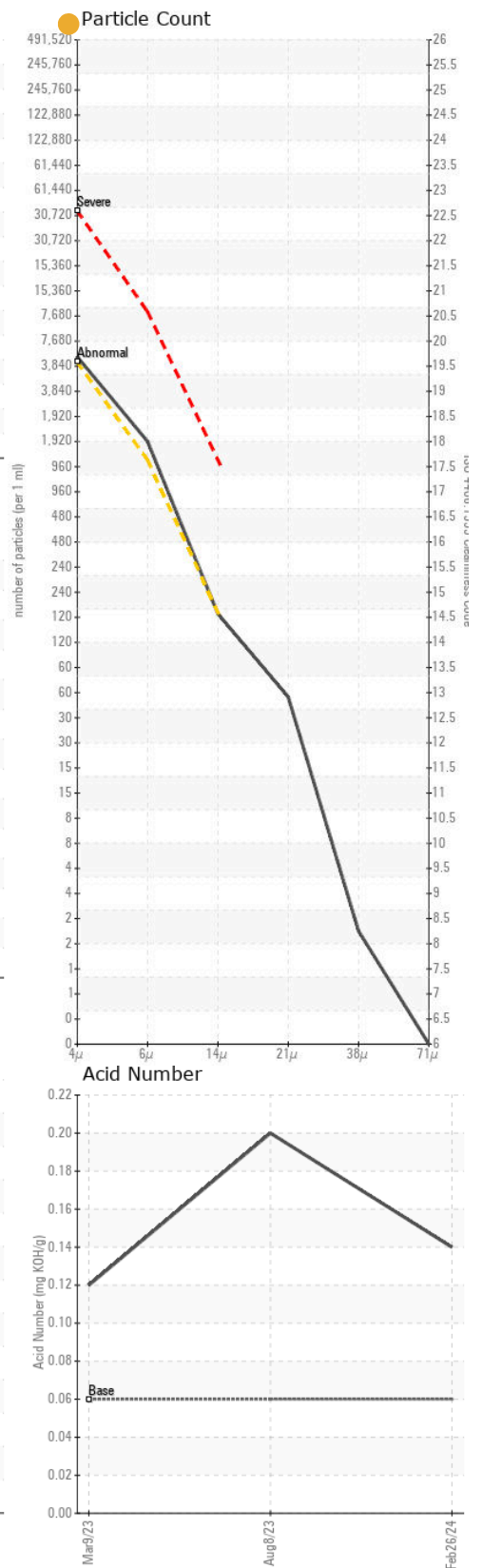
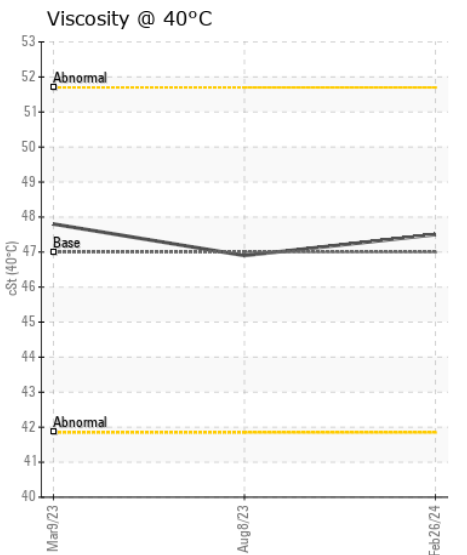
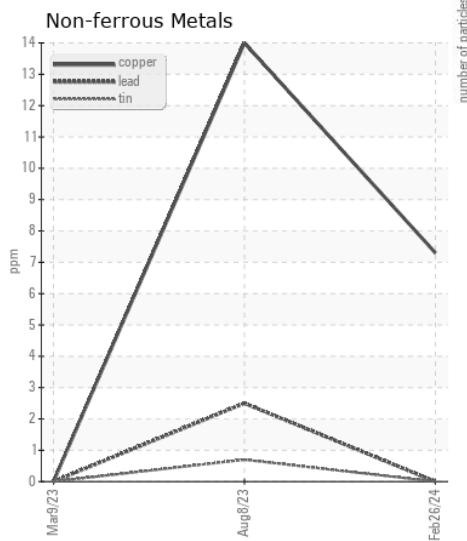
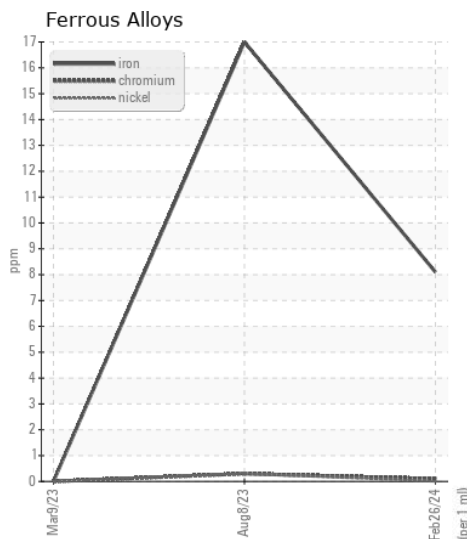
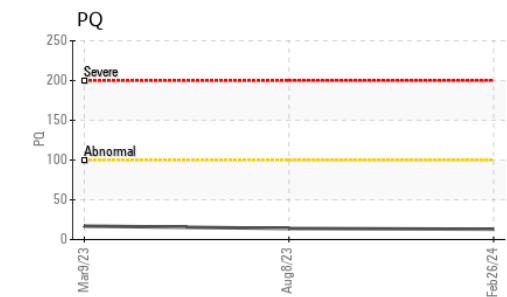
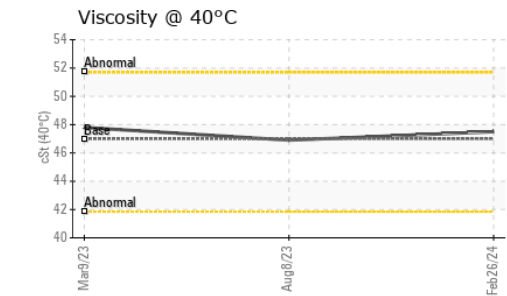
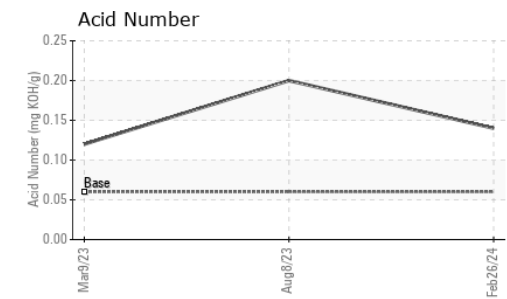
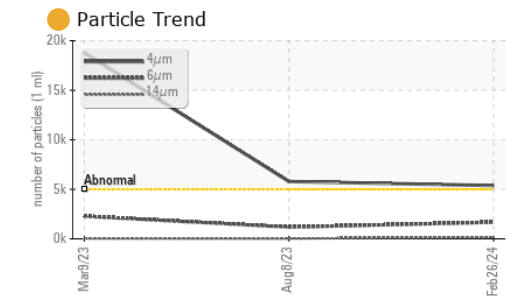
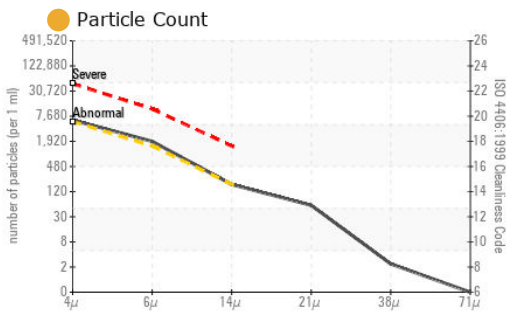
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	1	4	2
Potassium	ppm	ASTM D5185m	>20	<1	4	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	5378	5785	18773
Particles >6µm		ASTM D7647	>1300	1680	1184	2286
Particles >14µm		ASTM D7647	>160	157	28	35
Particles >21µm		ASTM D7647	>40	50	4	6
Particles >38µm		ASTM D7647	>10	2	0	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	20/18/14	20/17/12	21/18/12
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		0	6	0
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		8	0	0
Molybdenum	ppm	ASTM D5185m		0	2	0
Manganese	ppm	ASTM D5185m		0	2	<1
Magnesium	ppm	ASTM D5185m		6	13	6
Calcium	ppm	ASTM D5185m		118	247	3
Phosphorus	ppm	ASTM D5185m	827	435	389	547
Zinc	ppm	ASTM D5185m	0	65	106	2
Sulfur	ppm	ASTM D5185m	13	803	1812	0
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.14	0.20	0.12
Visc @ 40°C	cSt	ASTM D445	47	47.5	46.9	47.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0202337 **Received** : 26 Feb 2024
Lab Number : 06100876 **Tested** : 27 Feb 2024
Unique Number : 10899106 **Diagnosed** : 28 Feb 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

JRE - HOPE MILLS/FAYETTEVILLE
 5039 HWY 301 SOUTH
 HOPE MILLS, NC
 US 28348
 Contact: FAYETTEVILLE SHOP
 stephen.mullis@jamesriverequipment.com; panastasio@wearcheck.com

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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F: