



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
[W51904]

Machine Id
HITACHI 1FFDAP70VMF140177

Component
Hydraulic System

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

RECOMMENDATION

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0211605	JR0181027	JR0147858
Sample Date		Client Info		24 May 2024	27 Nov 2023	29 Nov 2022
Machine Age	hrs	Client Info		1971	1477	981
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Changed	Not Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		15	14	15
Iron	ppm	ASTM D5185m	>20	4	1	4
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	0	0	0
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>75	<1	<1	<1
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

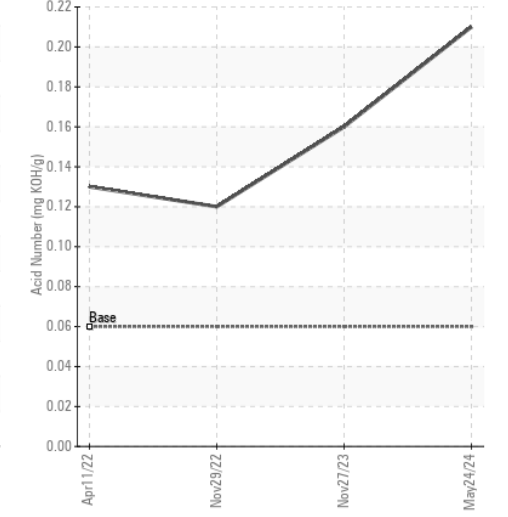
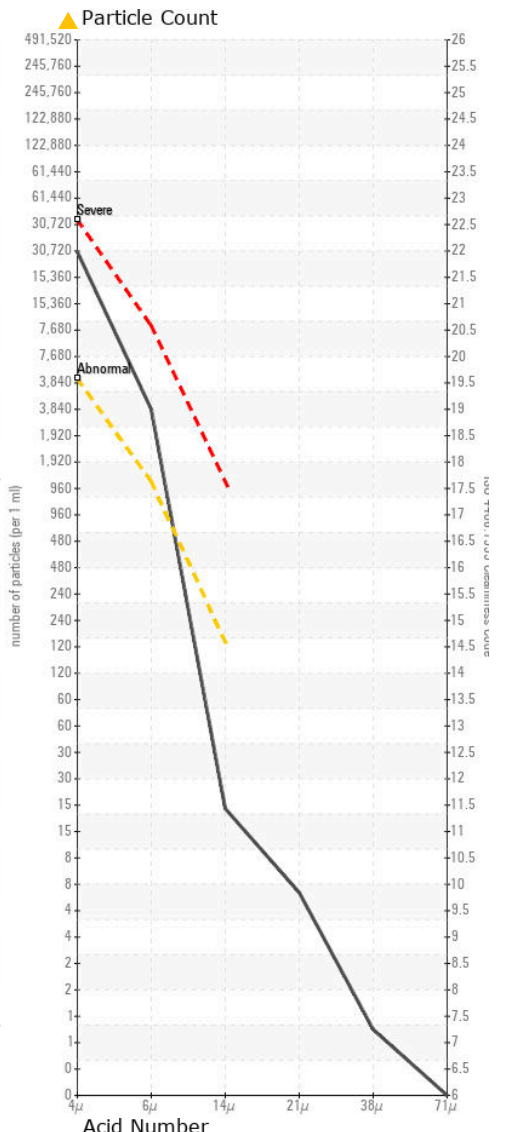
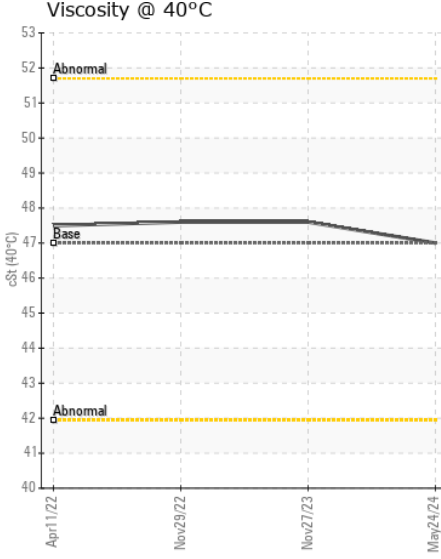
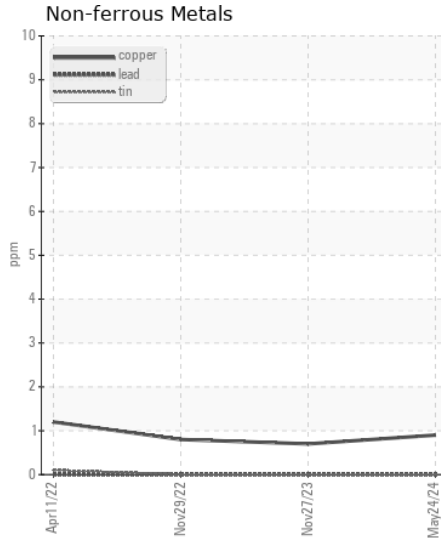
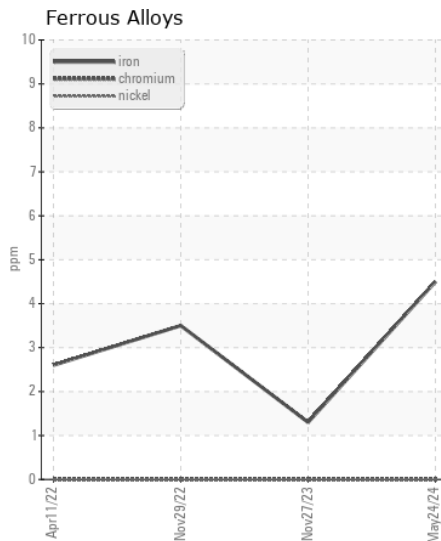
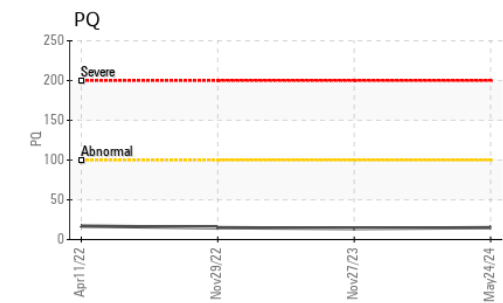
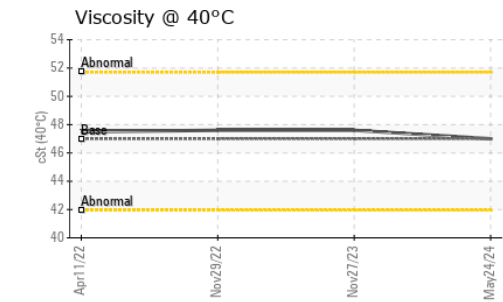
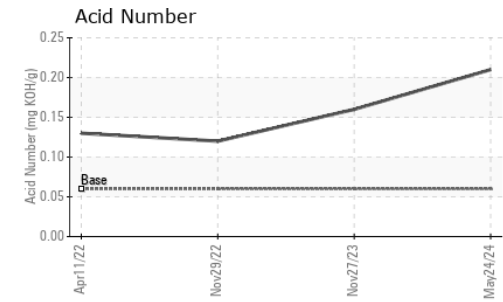
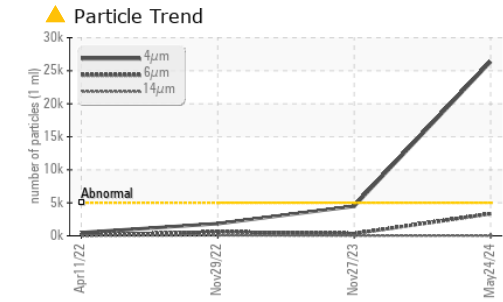
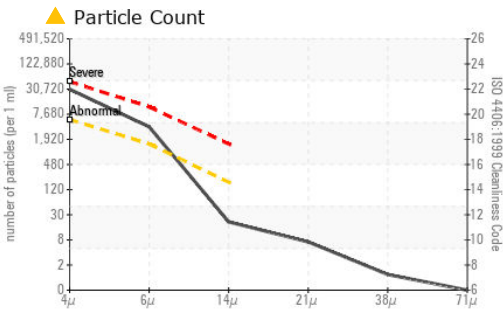
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	<1	0	<1
Potassium	ppm	ASTM D5185m	>20	0	0	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 26357	4476	1843
Particles >6µm		ASTM D7647	>1300	▲ 3342	347	588
Particles >14µm		ASTM D7647	>160	18	26	69
Particles >21µm		ASTM D7647	>40	6	7	21
Particles >38µm		ASTM D7647	>10	1	1	1
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 22/19/11	19/16/12	18/16/13
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	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 oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185m		<1	1	0
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		4	0	<1
Calcium	ppm	ASTM D5185m		50	11	0
Phosphorus	ppm	ASTM D5185m	827	422	360	432
Zinc	ppm	ASTM D5185m	0	53	35	24
Sulfur	ppm	ASTM D5185m	13	175	114	0
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.21	0.16	0.12
Visc @ 40°C	cSt	ASTM D445	47	47.0	47.6	47.6



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0211605 **Received** : 31 May 2024
Lab Number : 06196574 **Tested** : 03 Jun 2024
Unique Number : 11058697 **Diagnosed** : 03 Jun 2024 - Wes Davis
Test Package : CONST (Additional Tests: PQ)

JRE - ASHLAND
 11047 LEADBETTER RD
 ASHLAND, VA
 US 23005
 Contact: DAVID ZIEG
 dzieg@jamesriverequipment.com
 T: (804)798-6001
 F: (804)798-0292

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)