



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area

[W8459]

Machine Id

HITACHI 160LC-6 1FFDBP70AMF240388

Component

Hydraulic System

Fluid

HITACHI HYDRAULIC SUPER EX 46HN (160 QTS)

RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. We were unable to perform a particle count due to a high concentration of particles present in this sample. (Customer Sample Comment: W8459)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0197170	JR0149925	JR0123393
Sample Date		Client Info		09 Feb 2024	30 Oct 2022	13 Jun 2022
Machine Age	hrs	Client Info		2015	1467	1005
Oil Age	hrs	Client Info		2015	1467	557
Filter Age	hrs	Client Info		1000	1467	0
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Changed	Not Changed	Not Changed
Sample Status				ABNORMAL	ABNORMAL	ATTENTION

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>20	4	8	5
Chromium	ppm	ASTM D5185m	>10	<1	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	1	0
Aluminum	ppm	ASTM D5185m	>10	<1	3	<1
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>75	1	1	2
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

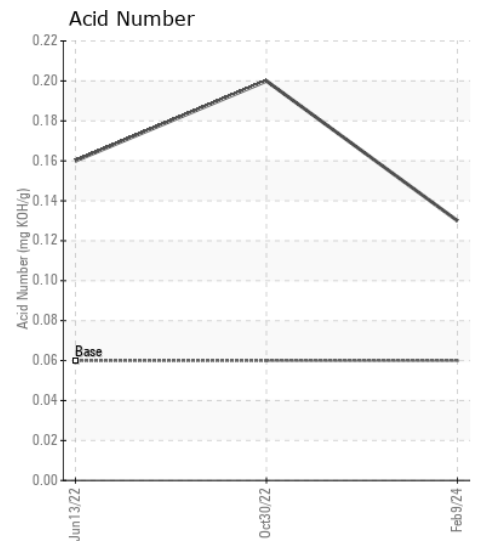
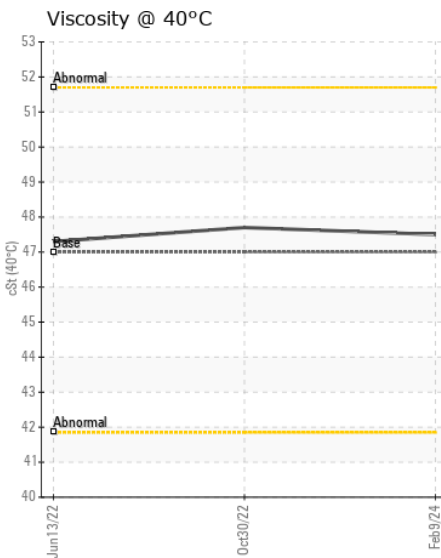
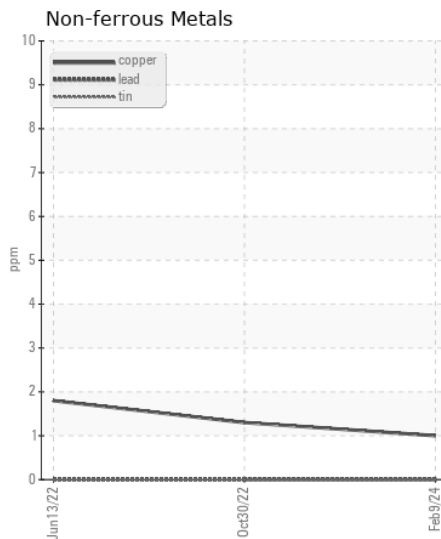
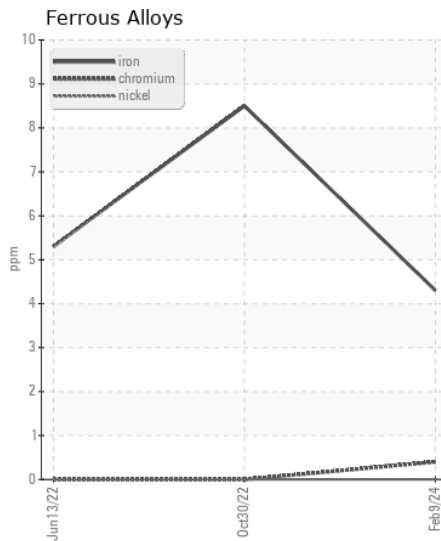
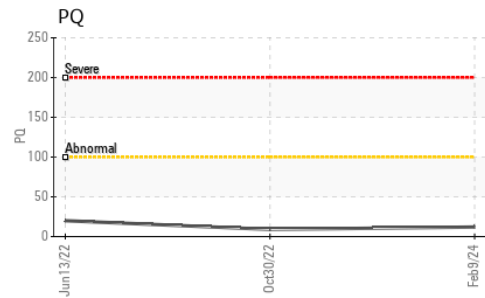
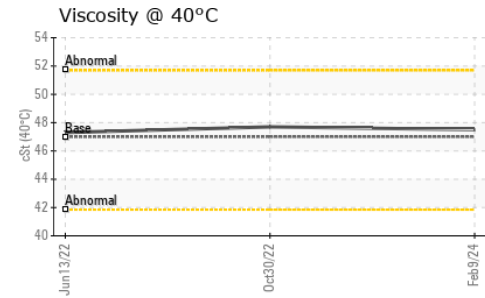
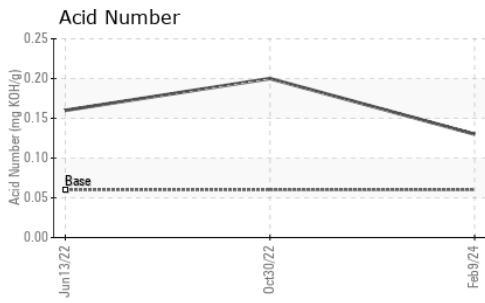
Moderate concentration of visible dirt/debris present in the oil.

Silicon	ppm	ASTM D5185m	>20	<1	6	<1
Potassium	ppm	ASTM D5185m	>20	0	0	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	---	▲ 164287	▲ 7917
Particles >6µm		ASTM D7647	>1300	---	▲ 82775	▲ 2008
Particles >14µm		ASTM D7647	>160	---	▲ 14082	144
Particles >21µm		ASTM D7647	>40	---	▲ 5415	39
Particles >38µm		ASTM D7647	>10	---	▲ 261	2
Particles >71µm		ASTM D7647	>3	---	▲ 4	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	---	▲ 25/24/21	▲ 20/18/14
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	LIGHT	LIGHT
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	<1
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		0	2	0
Calcium	ppm	ASTM D5185m		6	0	0
Phosphorus	ppm	ASTM D5185m	827	499	450	524
Zinc	ppm	ASTM D5185m	0	18	19	28
Sulfur	ppm	ASTM D5185m	13	84	46	107
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.13	0.20	0.16
Visc @ 40°C	cSt	ASTM D445	47	47.5	47.7	47.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : JR0197170

Lab Number : 06087176

Unique Number : 10874621

Test Package : MOBCE (Additional Tests: PQ)

Received : 13 Feb 2024

Tested : 14 Feb 2024

Diagnosed : 14 Feb 2024 - Don Baldrige

JRE - HOPE MILLS/FAYETTEVILLE

5039 HWY 301 SOUTH

HOPE MILLS, NC

US 28348

Contact: FAYETTEVILLE SHOP

stephen.mullis@jamesriverequipment.com;canastasio@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)

T:

F: