



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area

**Contracting**

Machine Id

**5525 5525**

Component

**Hydraulic System**

Fluid

**HITACHI HYDRAULIC SUPER EX 46HN (15 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0918643</b>	WC0867190	WC0784608
Sample Date		Client Info		<b>18 Mar 2024</b>	24 Oct 2023	06 Feb 2023
Machine Age	hrs	Client Info		<b>5456</b>	5024	4390
Oil Age	hrs	Client Info		<b>519</b>	2296	1662
Filter Age	hrs	Client Info		<b>519</b>	2296	1662
Oil Changed		Client Info		<b>Not Changd</b>	Changed	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Changed	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>32	<b>3</b>	3	7
Chromium	ppm	ASTM D5185m	>9	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>0</b>	<1	0
Lead	ppm	ASTM D5185m	>28	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>&lt;1</b>	<1	1
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	VLITE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

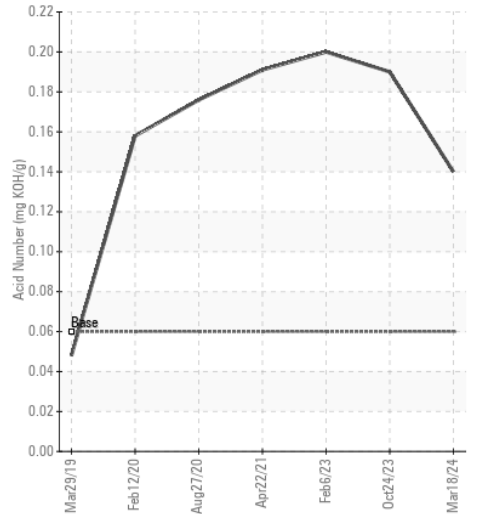
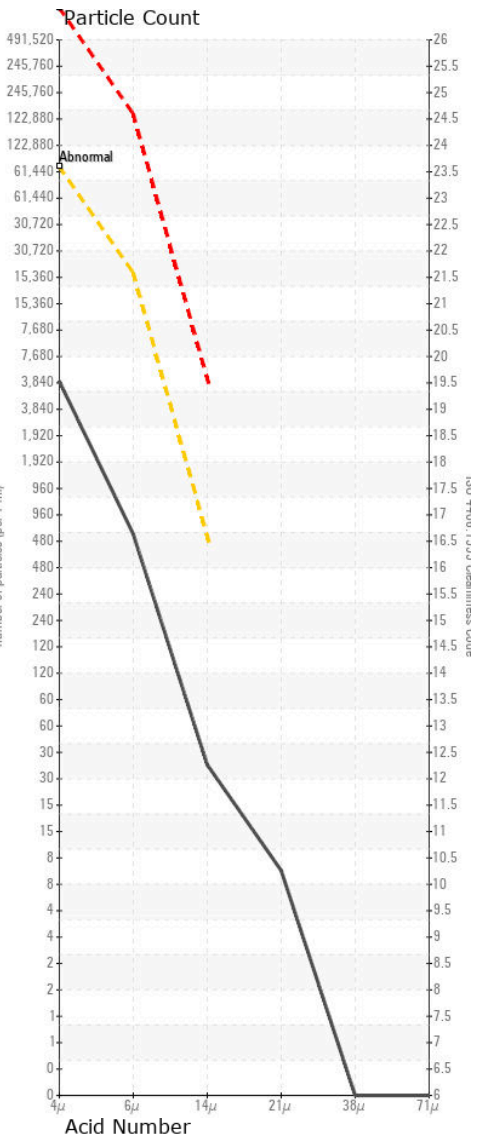
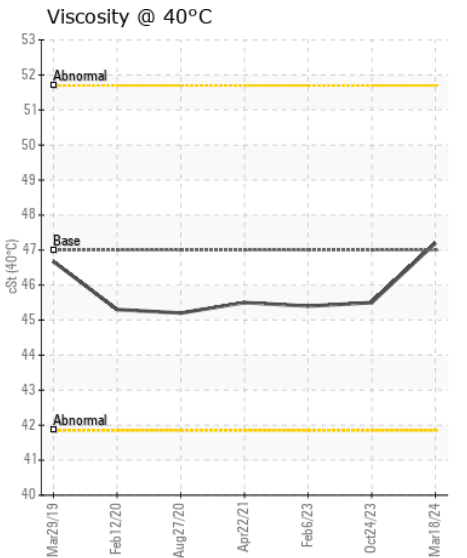
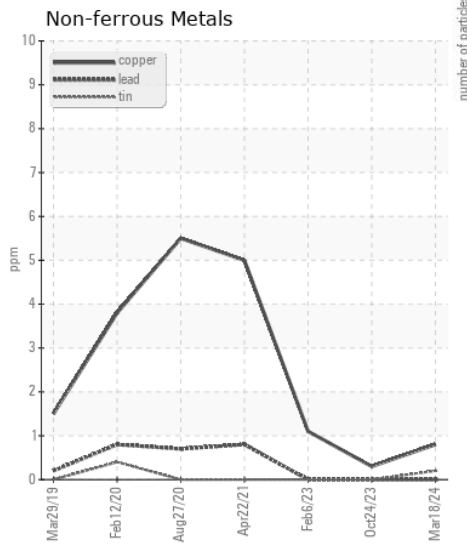
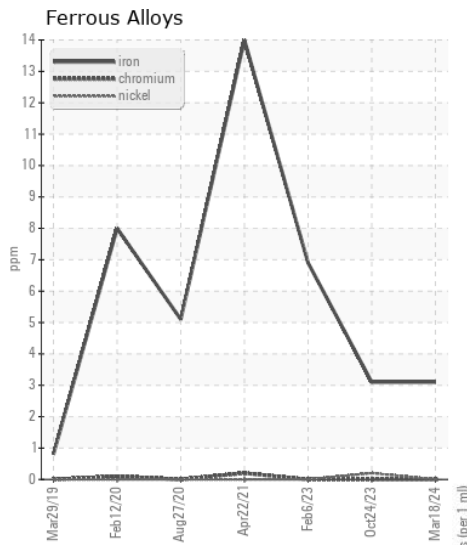
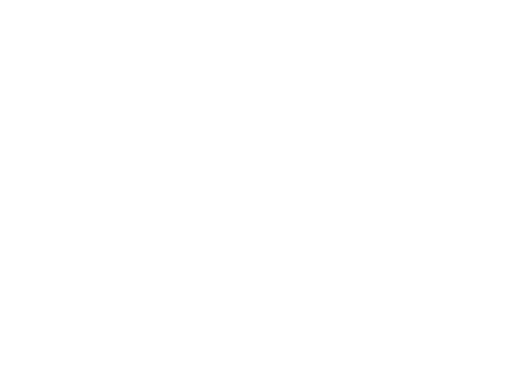
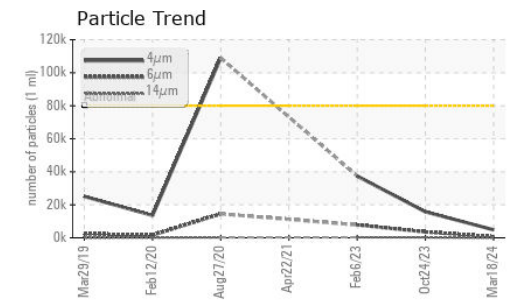
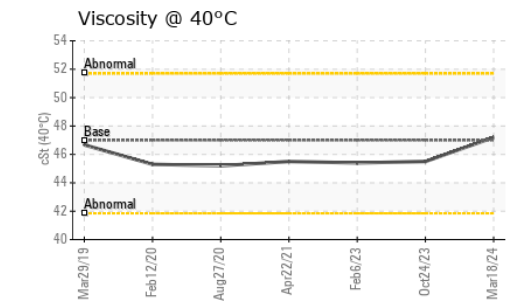
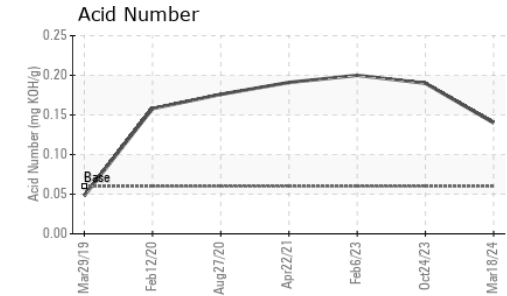
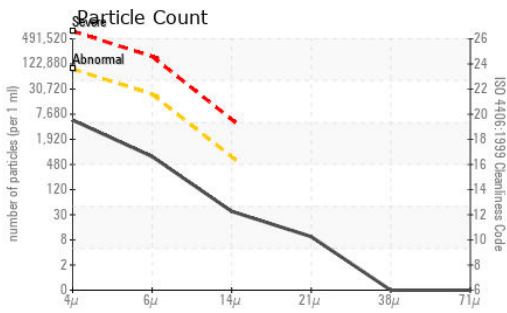
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>11	<b>&lt;1</b>	1	2
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>4837</b>	15745	37399
Particles >6µm		ASTM D7647	>20000	<b>653</b>	3550	7795
Particles >14µm		ASTM D7647	>640	<b>32</b>	272	322
Particles >21µm		ASTM D7647	>160	<b>8</b>	74	70
Particles >38µm		ASTM D7647	>40	<b>0</b>	2	5
Particles >71µm		ASTM D7647	>10	<b>0</b>	1	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	<b>19/17/12</b>	21/19/15	22/20/16
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	VLITE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.075	<b>NEG</b>	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	>21	<b>0</b>	0	<1
Boron	ppm	ASTM D5185m		<b>1</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>1</b>	4	1
Calcium	ppm	ASTM D5185m		<b>63</b>	8	6
Phosphorus	ppm	ASTM D5185m	827	<b>473</b>	392	372
Zinc	ppm	ASTM D5185m	0	<b>39</b>	57	42
Sulfur	ppm	ASTM D5185m	13	<b>490</b>	644	407
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.14</b>	0.19	0.20
Visc @ 40°C	cSt	ASTM D445	47	<b>47.2</b>	45.5	45.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0918643  
**Lab Number** : 06123536  
**Unique Number** : 10937687  
**Test Package** : CONST

**Received** : 20 Mar 2024  
**Tested** : 25 Mar 2024  
**Diagnosed** : 25 Mar 2024 - Jonathan Hester

**CAROLINA SUNROCK**  
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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)