



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

**Contracting**

Machine Id

**5533 5533**

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>WC0861722</b>	WC0809010	WC0744792
Sample Date		Client Info		<b>08 Jan 2024</b>	18 May 2023	17 Oct 2022
Machine Age	hrs	Client Info		<b>1842</b>	1164	602
Oil Age	hrs	Client Info		<b>1842</b>	662	602
Filter Age	hrs	Client Info		<b>1842</b>	662	602
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	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>5</b>	4	4
Chromium	ppm	ASTM D5185m	>9	<b>0</b>	<1	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>	0	<1
Lead	ppm	ASTM D5185m	>28	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>50	<b>2</b>	3	4
Tin	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

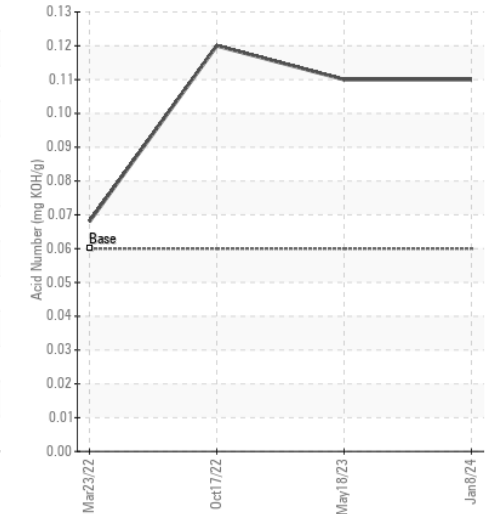
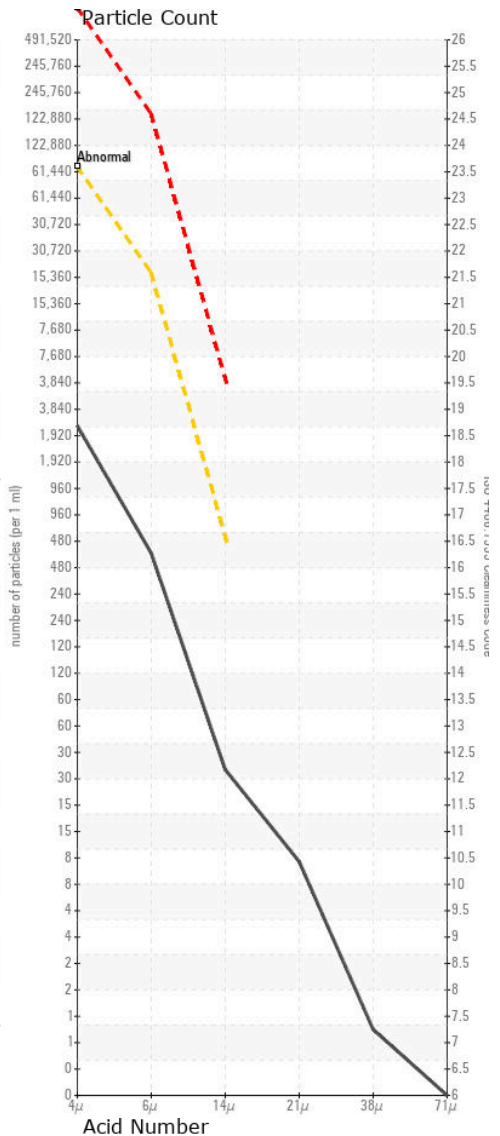
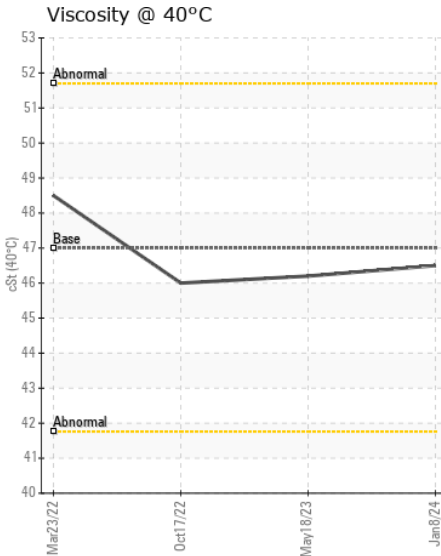
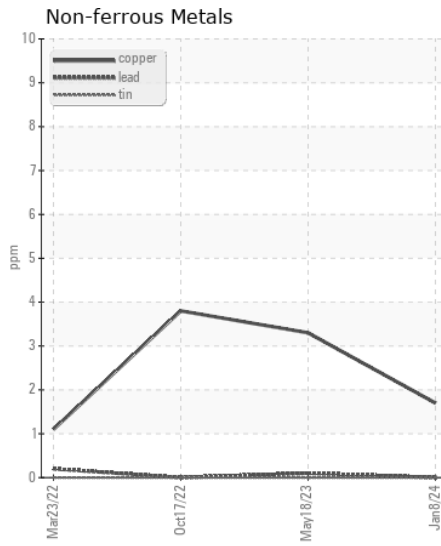
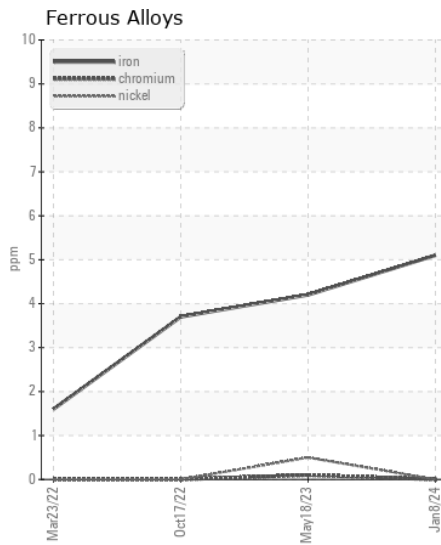
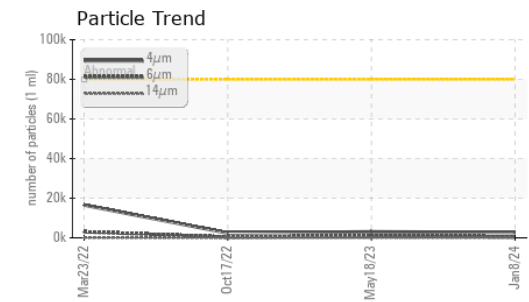
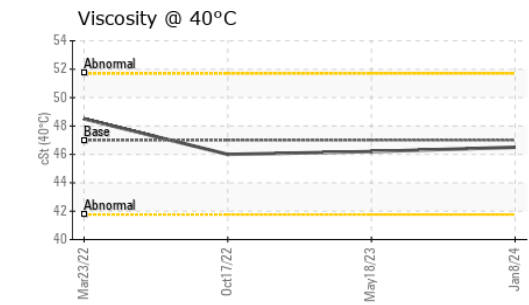
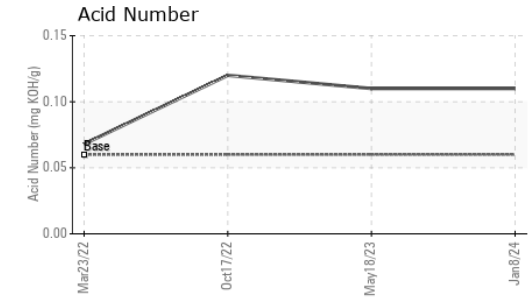
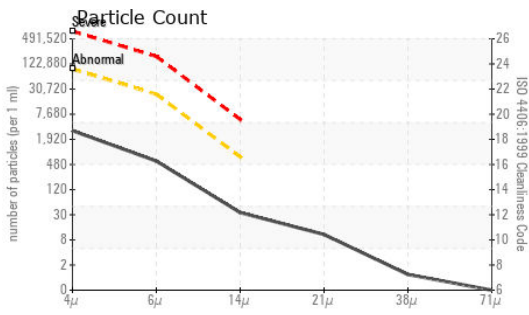
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>11	<b>2</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>2705</b>	3062	2385
Particles >6µm		ASTM D7647	>20000	<b>509</b>	926	341
Particles >14µm		ASTM D7647	>640	<b>30</b>	66	17
Particles >21µm		ASTM D7647	>160	<b>9</b>	14	3
Particles >38µm		ASTM D7647	>40	<b>1</b>	1	0
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	<b>19/16/12</b>	19/17/13	18/16/11
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
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>2</b>	<1	<1
Boron	ppm	ASTM D5185m		<b>0</b>	2	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>1</b>	2	0
Calcium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Phosphorus	ppm	ASTM D5185m	827	<b>435</b>	461	427
Zinc	ppm	ASTM D5185m	0	<b>30</b>	37	38
Sulfur	ppm	ASTM D5185m	13	<b>540</b>	573	481
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.11</b>	0.11	0.12
Visc @ 40°C	cSt	ASTM D445	47	<b>46.5</b>	46.2	46.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0861722 **Received** : 10 Jan 2024  
**Lab Number** : 06056576 **Diagnosed** : 11 Jan 2024  
**Unique Number** : 10822525 **Diagnostician** : Don Baldrige  
**Test Package** : CONST

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)

**CAROLINA SUNROCK**  
 PO BOX 25  
 BUTNER, NC  
 US 27509

Contact: Leigh Dennis  
 rdennis@thesunrockgroup.com  
 T: (919)575-4505  
 F: (919)575-0162