



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

Area  
**[47512]**  
Machine Id  
**SAKAI 3SV56-10146**  
Component  
**Hydraulic System**  
Fluid  
**HITACHI HYDRAULIC SUPER EX 46HN (52 QTS)**

### RECOMMENDATION

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0218616</b>	JR0176099	---
Sample Date		Client Info		<b>18 Jun 2024</b>	14 Jul 2023	---
Machine Age	hrs	Client Info		<b>2390</b>	1907	---
Oil Age	hrs	Client Info		<b>483</b>	1000	---
Filter Age	hrs	Client Info		<b>0</b>	500	---
Oil Changed		Client Info		<b>Not Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>ABNORMAL</b>	NORMAL	---

### WEAR

All component wear rates are normal.

Test	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		<b>18</b>	11	---
Iron	ppm	ASTM D5185m	>20	<b>&lt;1</b>	8	---
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>10	<b>&lt;1</b>	1	---
Lead	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Copper	ppm	ASTM D5185m	>75	<b>3</b>	9	---
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

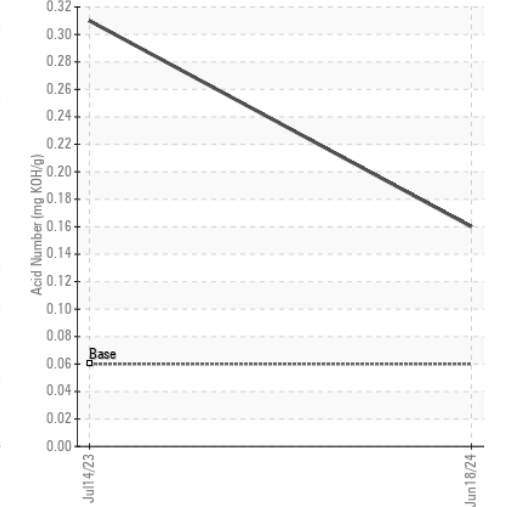
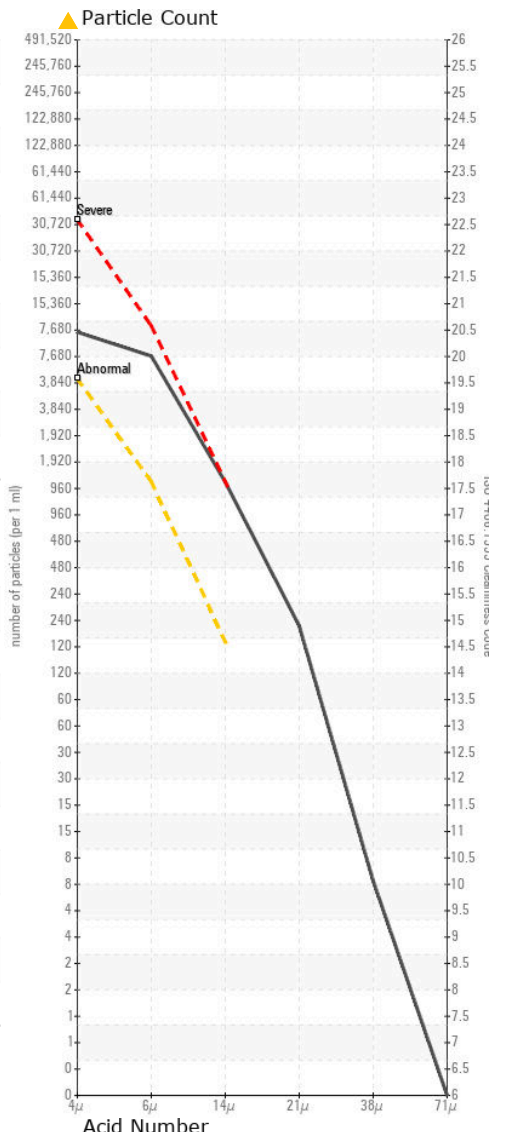
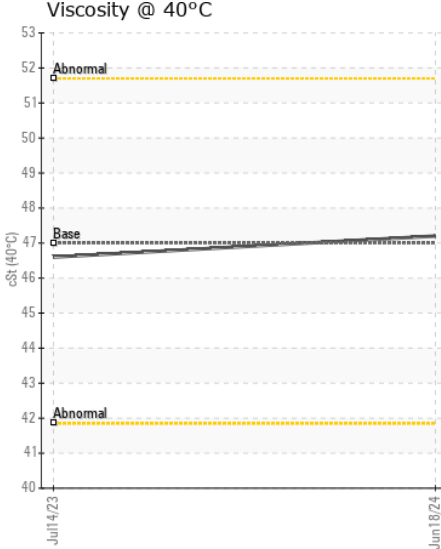
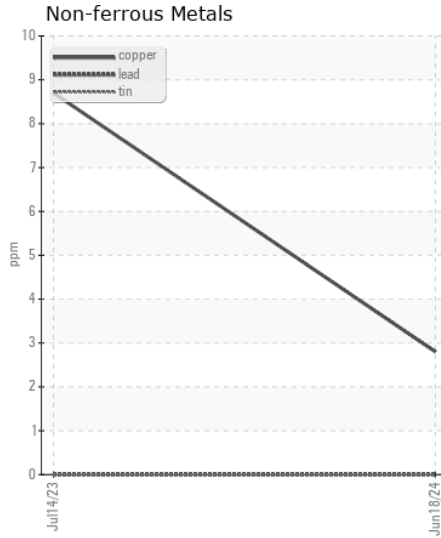
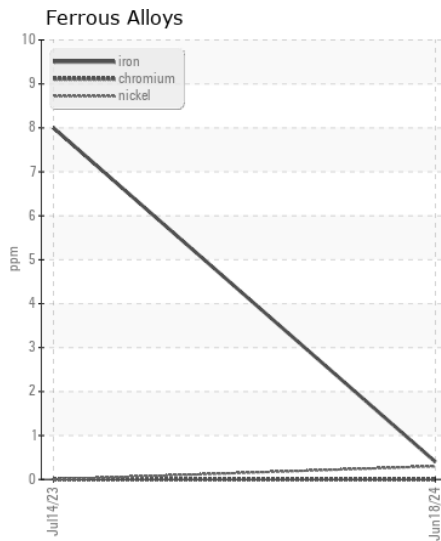
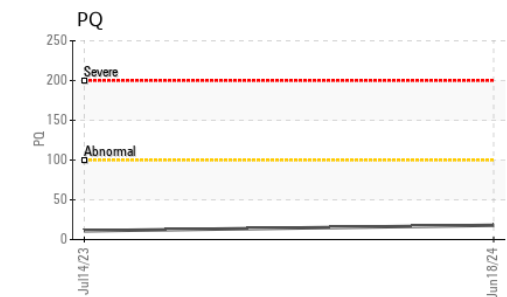
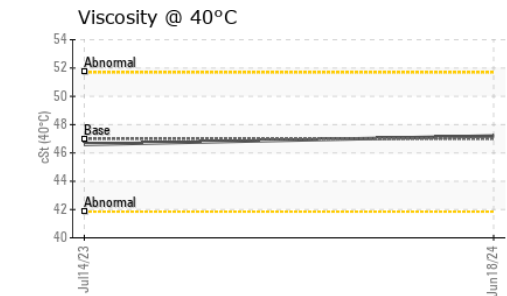
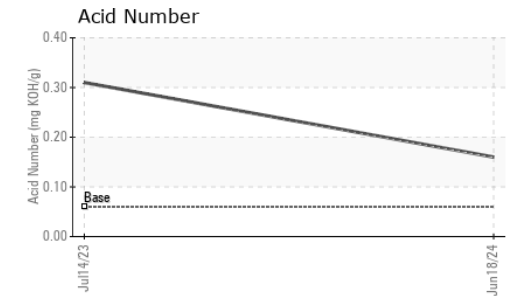
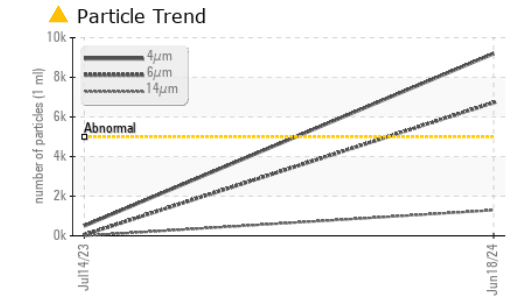
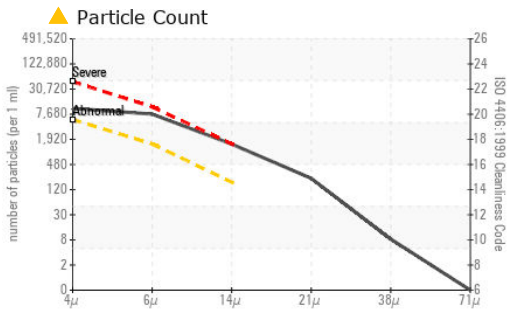
There is a moderate amount of particulates (2 to 100 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	---
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	<1	---
Water		WC Method	>0.1	<b>NEG</b>	NEG	---
Particles >4µm		ASTM D7647	>5000	<b>9200</b>	499	---
Particles >6µm		ASTM D7647	>1300	<b>6726</b>	51	---
Particles >14µm		ASTM D7647	>160	<b>1293</b>	2	---
Particles >21µm		ASTM D7647	>40	<b>197</b>	0	---
Particles >38µm		ASTM D7647	>10	<b>7</b>	0	---
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>20/20/17</b>	16/13/9	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	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		<b>2</b>	<1	---
Boron	ppm	ASTM D5185m		<b>0</b>	0	---
Barium	ppm	ASTM D5185m		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m		<b>2</b>	3	---
Calcium	ppm	ASTM D5185m		<b>31</b>	61	---
Phosphorus	ppm	ASTM D5185m	827	<b>465</b>	338	---
Zinc	ppm	ASTM D5185m	0	<b>167</b>	314	---
Sulfur	ppm	ASTM D5185m	13	<b>472</b>	971	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.16</b>	0.31	---
Visc @ 40°C	cSt	ASTM D445	47	<b>47.2</b>	46.6	---



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0218616 **Received** : 20 Jun 2024  
**Lab Number** : 06215726 **Tested** : 21 Jun 2024  
**Unique Number** : 11088590 **Diagnosed** : 21 Jun 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: PQ )

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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)