



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

Machine Id  
**HAMM H12i HZ840112**  
 Component  
**Hydraulic System**  
 Fluid  
**AW HYDRAULIC OIL ISO 46 (--- QTS)**

### RECOMMENDATION

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0214736</b>	JR0153506	---
Sample Date		Client Info		<b>13 Jun 2024</b>	20 Dec 2022	---
Machine Age	hrs	Client Info		<b>1311</b>	452	---
Oil Age	hrs	Client Info		<b>0</b>	452	---
Filter Age	hrs	Client Info		<b>0</b>	452	---
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>ABNORMAL</b>	ATTENTION	---

### WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		<b>22</b>	13	---
Iron	ppm	ASTM D5185m	>20	<b>14</b>	6	---
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>10	<b>2</b>	<1	---
Lead	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	---
Copper	ppm	ASTM D5185m	>75	<b>8</b>	6	---
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

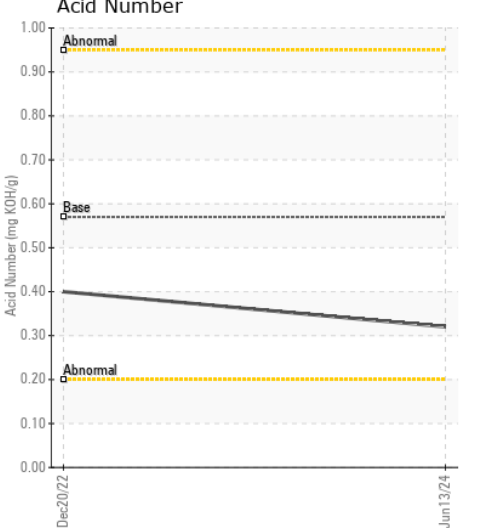
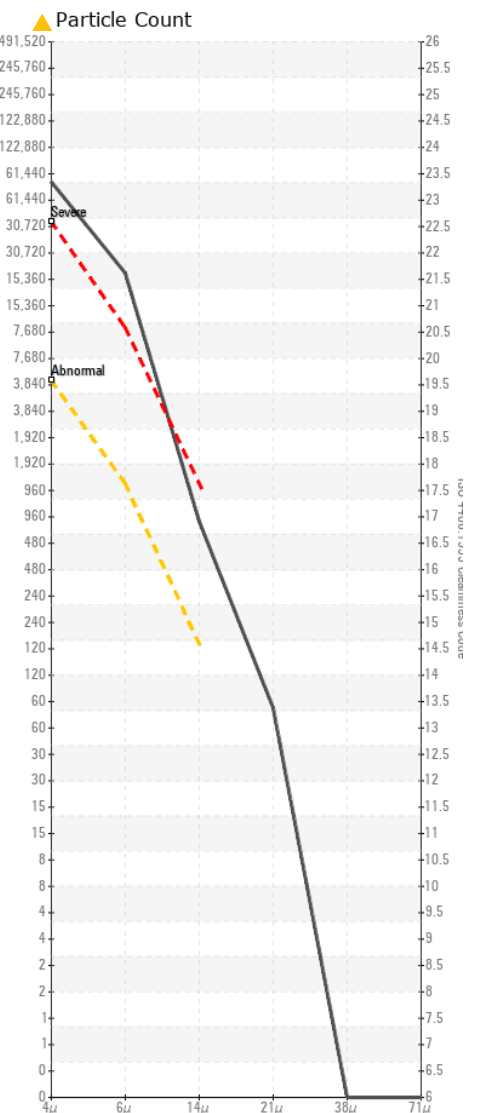
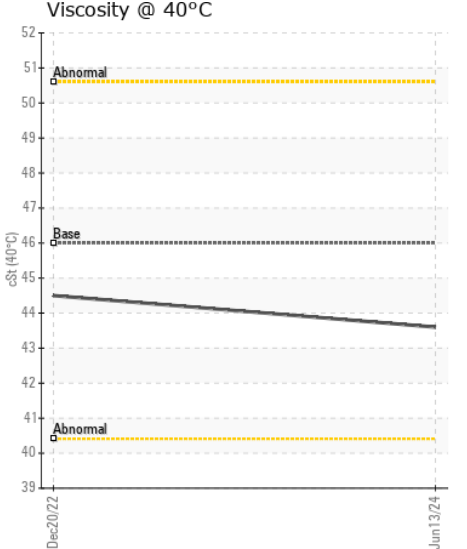
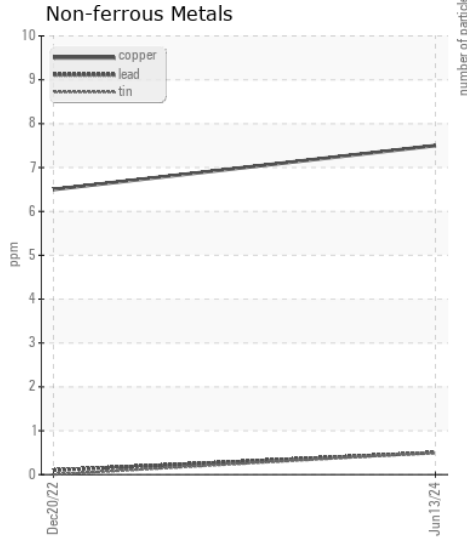
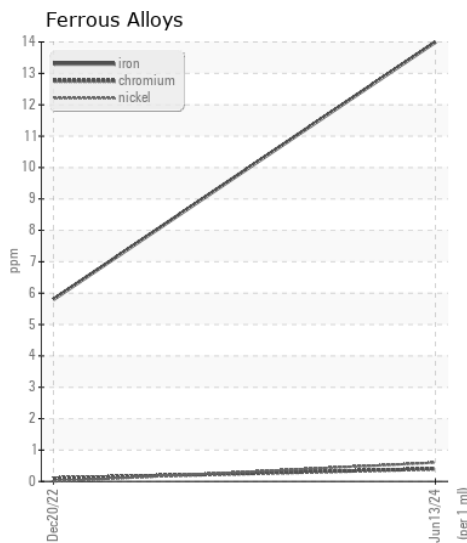
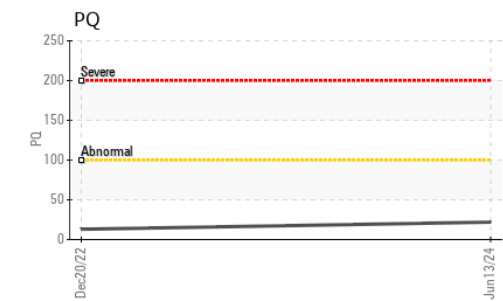
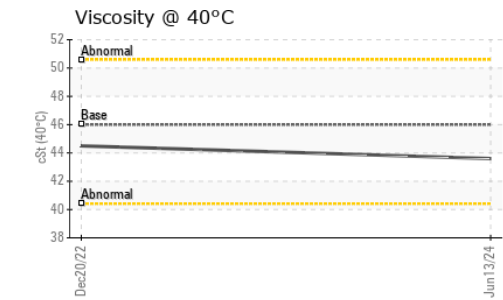
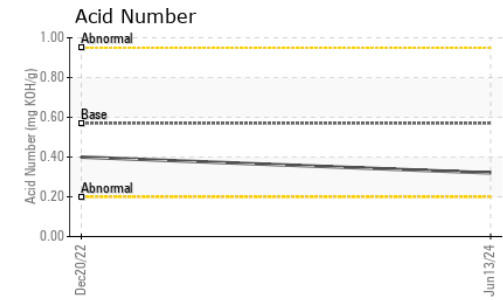
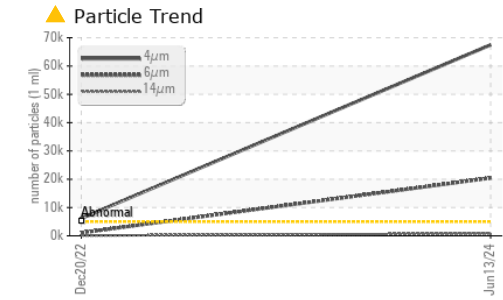
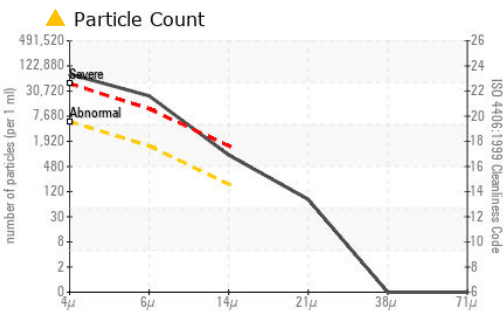
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>7</b>	6	---
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	<1	---
Water		WC Method	>0.1	<b>NEG</b>	NEG	---
Particles >4µm		ASTM D7647	>5000	<b>▲ 67478</b>	● 6169	---
Particles >6µm		ASTM D7647	>1300	<b>▲ 20445</b>	1066	---
Particles >14µm		ASTM D7647	>160	<b>▲ 793</b>	91	---
Particles >21µm		ASTM D7647	>40	<b>● 69</b>	34	---
Particles >38µm		ASTM D7647	>10	<b>0</b>	3	---
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>▲ 23/22/17</b>	● 20/17/14	---
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 condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Boron	ppm	ASTM D5185m	5	<b>0</b>	0	---
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	5	<b>&lt;1</b>	0	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m	25	<b>45</b>	44	---
Calcium	ppm	ASTM D5185m	200	<b>83</b>	33	---
Phosphorus	ppm	ASTM D5185m	300	<b>281</b>	246	---
Zinc	ppm	ASTM D5185m	370	<b>377</b>	340	---
Sulfur	ppm	ASTM D5185m	2500	<b>974</b>	1048	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	<b>0.32</b>	0.40	---
Visc @ 40°C	cSt	ASTM D445	46	<b>43.6</b>	44.5	---



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0214736 **Received** : 17 Jun 2024  
**Lab Number** : 06211503 **Tested** : 18 Jun 2024  
**Unique Number** : 11084367 **Diagnosed** : 18 Jun 2024 - Angela Borella  
**Test Package** : CONST ( Additional Tests: PQ )

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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)