



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

Machine Id  
**HITACHI 210LC-6N E200**  
 Component  
**Hydraulic System**  
 Fluid  
**HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)**

### RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. The filter change at the time of sampling has been noted. Resample in 30-45 days to monitor this situation.

### WEAR

All component wear rates are normal.

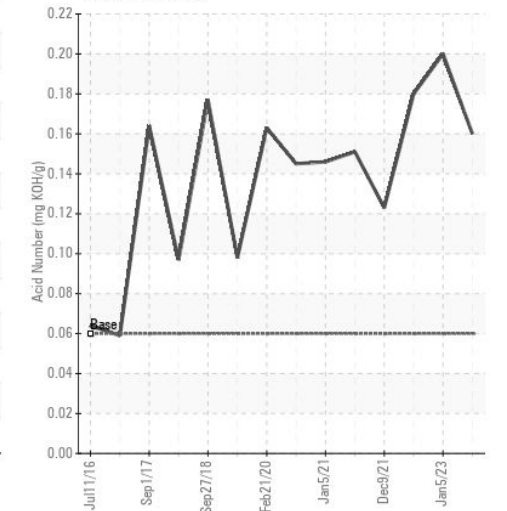
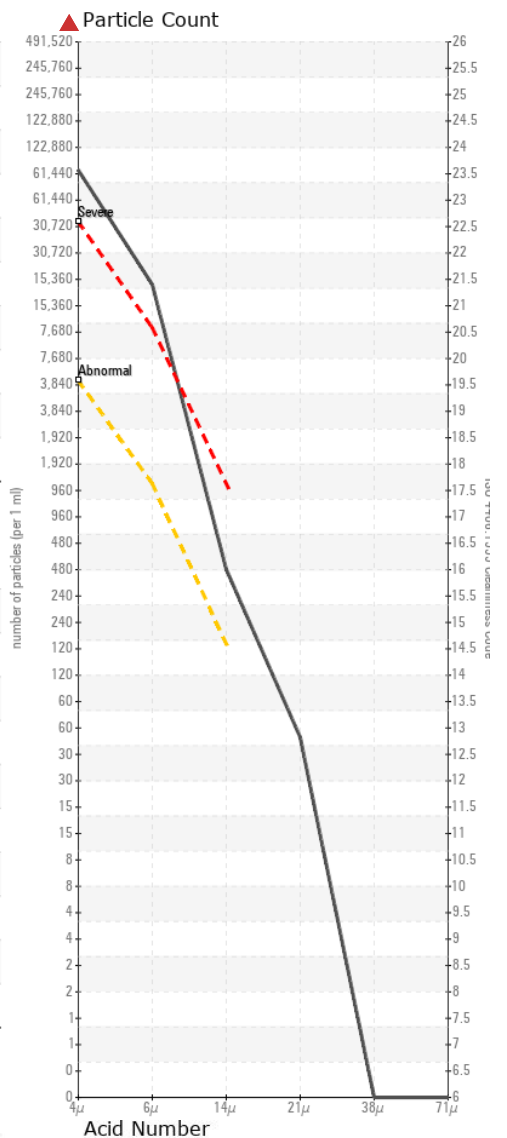
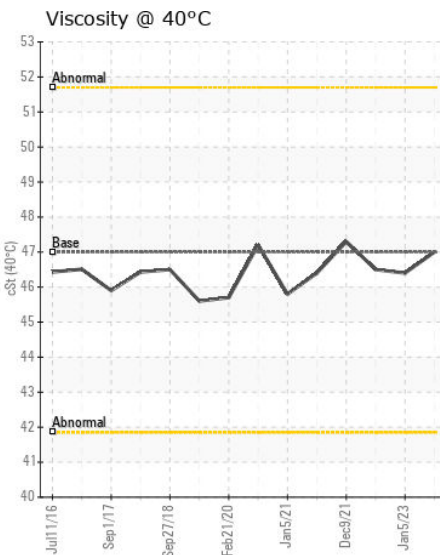
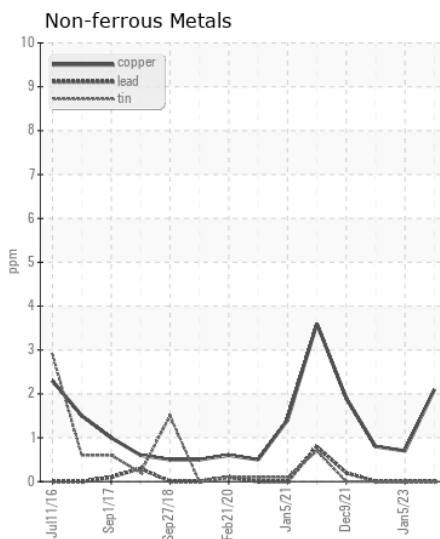
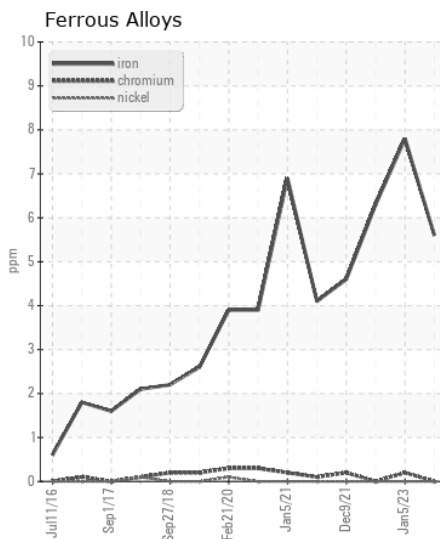
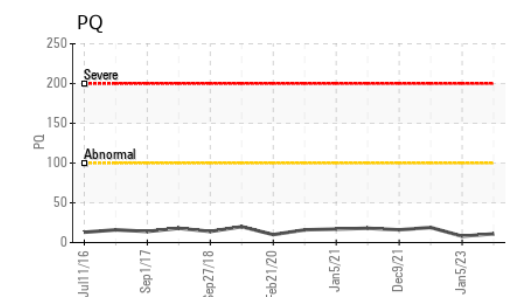
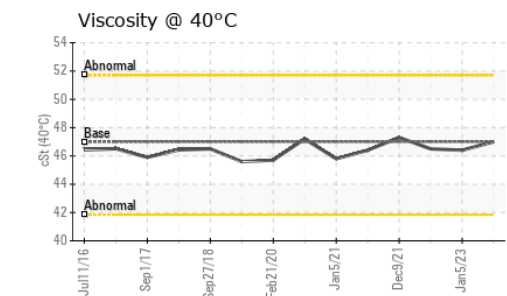
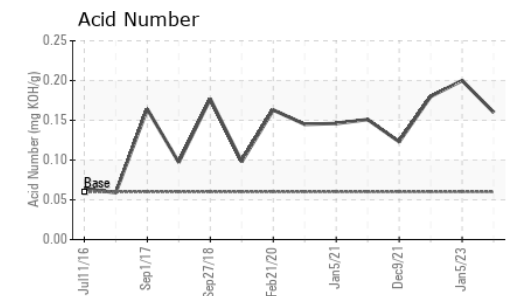
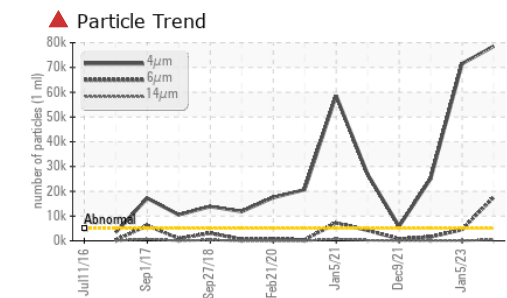
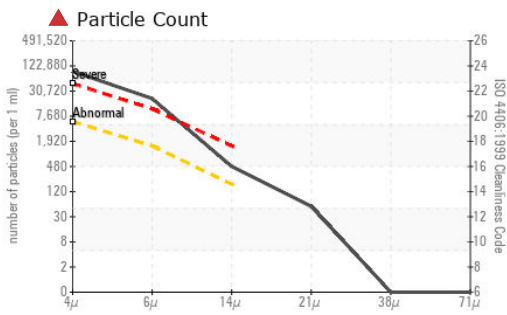
### CONTAMINATION

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

### 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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0193314</b>	JR0134222	JR0129178
Sample Date		Client Info		<b>10 Jun 2024</b>	05 Jan 2023	16 May 2022
Machine Age	hrs	Client Info		<b>7197</b>	6686	6129
Oil Age	hrs	Client Info		<b>2220</b>	1709	1152
Filter Age	hrs	Client Info		<b>1068</b>	0	1152
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Filter Changed		Client Info		<b>Changed</b>	Not Changed	Changed
Sample Status				<b>SEVERE</b>	ABNORMAL	ABNORMAL
PQ		ASTM D8184		<b>11</b>	8	19
Iron	ppm	ASTM D5185m	>20	<b>6</b>	8	6
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>&lt;1</b>	1	1
Lead	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>75	<b>2</b>	<1	<1
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	<b>1</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>▲ 78563</b>	▲ 71539	▲ 25037
Particles >6µm		ASTM D7647	>1300	<b>▲ 17601</b>	▲ 4543	● 1573
Particles >14µm		ASTM D7647	>160	<b>▲ 424</b>	71	87
Particles >21µm		ASTM D7647	>40	<b>47</b>	16	19
Particles >38µm		ASTM D7647	>10	<b>0</b>	1	2
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>▲ 23/21/16</b>	▲ 23/19/13	▲ 22/18/14
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	>0.1	<b>NEG</b>	NEG	NEG
Sodium	ppm	ASTM D5185m		<b>1</b>	0	0
Boron	ppm	ASTM D5185m		<b>0</b>	0	<1
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>3</b>	<1	0
Calcium	ppm	ASTM D5185m		<b>163</b>	1	2
Phosphorus	ppm	ASTM D5185m	827	<b>606</b>	537	551
Zinc	ppm	ASTM D5185m	0	<b>70</b>	8	8
Sulfur	ppm	ASTM D5185m	13	<b>426</b>	123	107
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.16</b>	0.20	0.18
Visc @ 40°C	cSt	ASTM D445	47	<b>47.0</b>	46.4	46.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0193314 **Received** : 02 Jul 2024  
**Lab Number** : 06226106 **Tested** : 03 Jul 2024  
**Unique Number** : 11109599 **Diagnosed** : 03 Jul 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: PQ )

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)

**MATTHEWS CONSTRUCTION**  
 127 GRAYSON RD  
 ROCK HILL, SC  
 US 29732  
 Contact: Tad Clinton  
 tclinton@matthewsconstructionco.com  
 T: (803)207-5607  
 F: