



WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
[W68113]

Machine Id
C350E310336

Component
Hydraulic System

Fluid
HITACHI HYDRAULIC SUPER EX 46HN (50 GAL)

RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: W68113)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0219741	---	---
Sample Date		Client Info		25 Jun 2024	---	---
Machine Age	hrs	Client Info		8800	---	---
Oil Age	hrs	Client Info		8800	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

The iron level is abnormal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>20	▲ 58	---	---
Chromium	ppm	ASTM D5185m	>10	7	---	---
Nickel	ppm	ASTM D5185m	>10	0	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>10	8	---	---
Lead	ppm	ASTM D5185m	>10	0	---	---
Copper	ppm	ASTM D5185m	>75	40	---	---
Tin	ppm	ASTM D5185m	>10	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

There is a high amount of particulates present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material.

Silicon	ppm	ASTM D5185m	>20	▲ 22	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Water		WC Method	>0.1	NEG	---	---
Particles >4µm		ASTM D7647	>5000	▲ 49906	---	---
Particles >6µm		ASTM D7647	>1300	▲ 14814	---	---
Particles >14µm		ASTM D7647	>160	▲ 876	---	---
Particles >21µm		ASTM D7647	>40	▲ 128	---	---
Particles >38µm		ASTM D7647	>10	2	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 23/21/17	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.1	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		2	---	---
Boron	ppm	ASTM D5185m		0	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		0	---	---
Manganese	ppm	ASTM D5185m		1	---	---
Magnesium	ppm	ASTM D5185m		<1	---	---
Calcium	ppm	ASTM D5185m		67	---	---
Phosphorus	ppm	ASTM D5185m	827	361	---	---
Zinc	ppm	ASTM D5185m	0	405	---	---
Sulfur	ppm	ASTM D5185m	13	2184	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.33	---	---
Visc @ 40°C	cSt	ASTM D445	47	39.8	---	---

