



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Area
Store 4 - Fairmont
Machine Id
HITACHI ZX250 1FFDCB70JDE430225
Component
Hydraulic System
Fluid
HITACHI HYDRAULIC SUPER EX 46HN (63 GAL)

RECOMMENDATION

Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LECP194072	LECP177977	---
Sample Date		Client Info		01 May 2019	14 Mar 2018	---
Machine Age	hrs	Client Info		4281	3756	---
Oil Age	hrs	Client Info		4281	0	---
Filter Age	hrs	Client Info		4281	0	---
Oil Changed		Client Info		Not Changed	Not Changed	---
Filter Changed		Client Info		Changed	Not Changed	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

All component wear rates are normal.

PQ		ASTM D8184		18	14	---
Iron	ppm	ASTM D5185m	>20	13	13	---
Chromium	ppm	ASTM D5185m	>10	<1	<1	---
Nickel	ppm	ASTM D5185m		<1	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>10	2	2	---
Lead	ppm	ASTM D5185m	>10	<1	0	---
Copper	ppm	ASTM D5185m	>75	9	2	---
Tin	ppm	ASTM D5185m	>10	<1	3	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

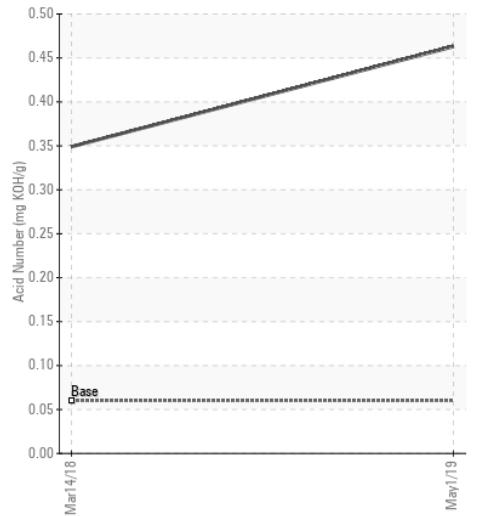
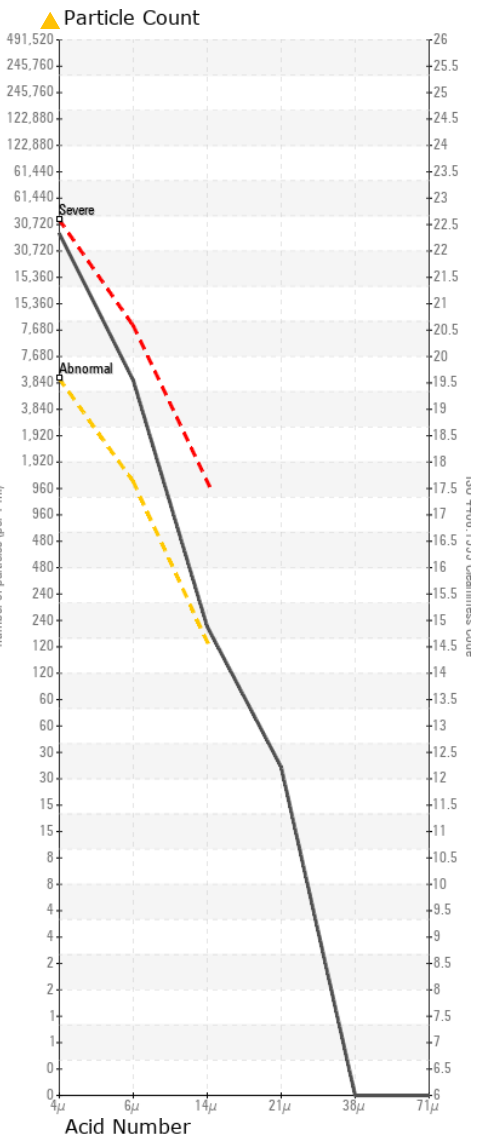
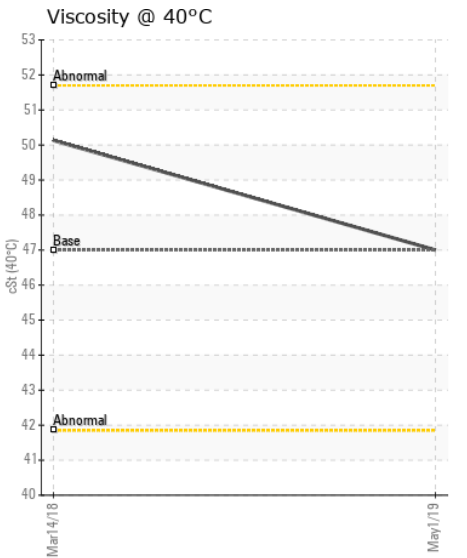
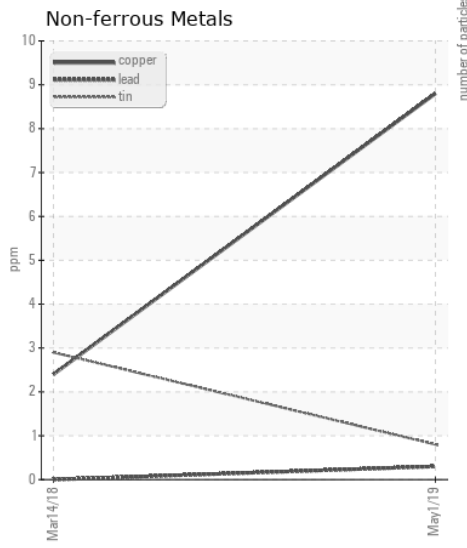
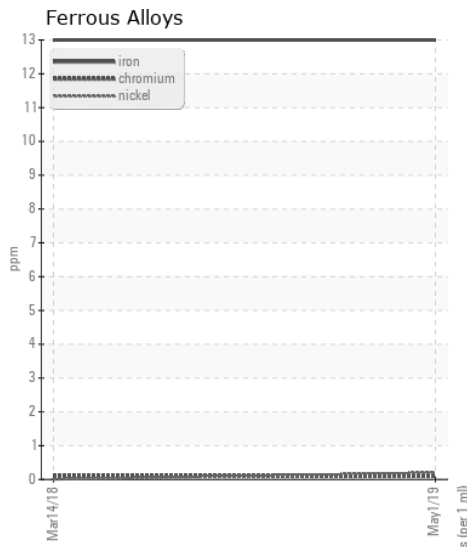
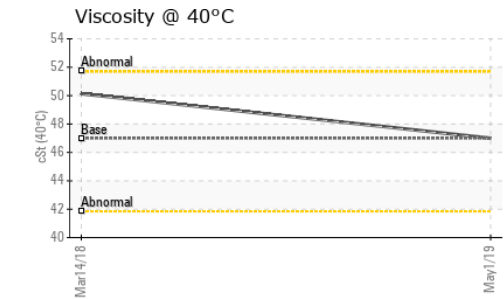
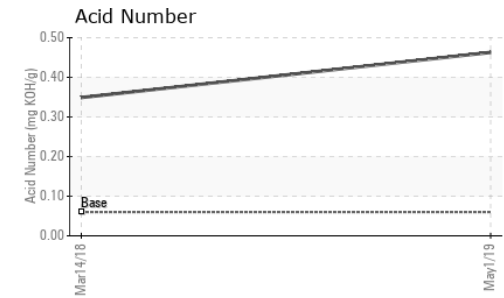
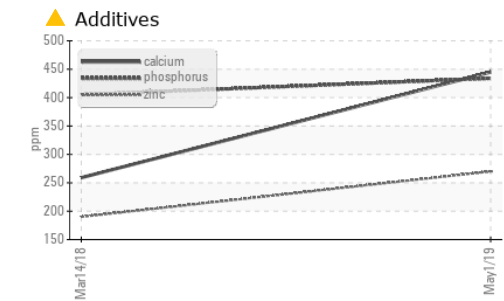
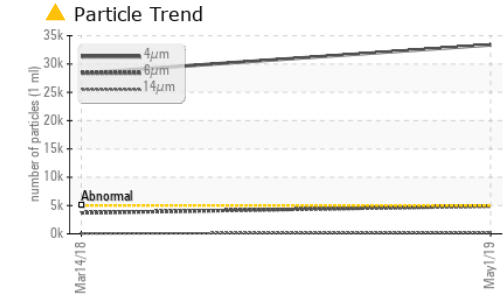
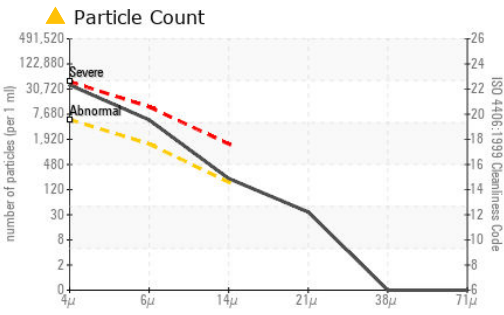
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>20	2	3	---
Potassium	ppm	ASTM D5185m	>20	<1	2	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>5000	▲ 33379	▲ 28394	---
Particles >6µm		ASTM D7647	>1300	▲ 4897	▲ 3698	---
Particles >14µm		ASTM D7647	>160	▲ 195	60	---
Particles >21µm		ASTM D7647	>40	31	11	---
Particles >38µm		ASTM D7647	>10	0	0	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 22/19/15	▲ 22/19/13	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	---

FLUID CONDITION

Zinc level above manufacturer's recommendations. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		2	2	---
Boron	ppm	ASTM D5185m		23	23	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		6	5	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		31	32	---
Calcium	ppm	ASTM D5185m		445	259	---
Phosphorus	ppm	ASTM D5185m	827	434	405	---
Zinc	ppm	ASTM D5185m	0	▲ 270	190	---
Sulfur	ppm	ASTM D5185m	13	1318	800	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.463	0.349	---
Visc @ 40°C	cSt	ASTM D445	47	47.0	50.13	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : LEC194072 Received : 06 May 2019
 Lab Number : 04706819 Tested : 07 May 2019
 Unique Number : 8588363 Diagnosed : 07 May 2019 - Doug Bogart
 Test Package : MOB 2 (Additional Tests: PQ)

LESLIE EQUIPMENT COMPANY
 105 TENNIS CENTER DR.
 MARIETTA, OH
 US 45750-9765
 Contact: LEANNE KENDALL
 KendalLeanne@lec1.com

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)

T: (740)373-5570