



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL



Area
Contracting
Machine Id
5512 5512
Component
Hydraulic System
Fluid
HITACHI HYDRAULIC SUPER EX 46HN (36 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		WC0918754	WC0835057	WC0784525
Sample Date		Client Info		22 Apr 2024	09 Aug 2023	14 Feb 2023
Machine Age	hrs	Client Info		8132	7620	7023
Oil Age	hrs	Client Info		1158	646	7023
Filter Age	hrs	Client Info		1158	646	7023
Oil Changed		Client Info		Not Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>32	2	2	2
Chromium	ppm	ASTM D5185m	>9	0	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>9	0	2	0
Lead	ppm	ASTM D5185m	>28	0	0	0
Copper	ppm	ASTM D5185m	>50	<1	2	1
Tin	ppm	ASTM D5185m	>5	0	0	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

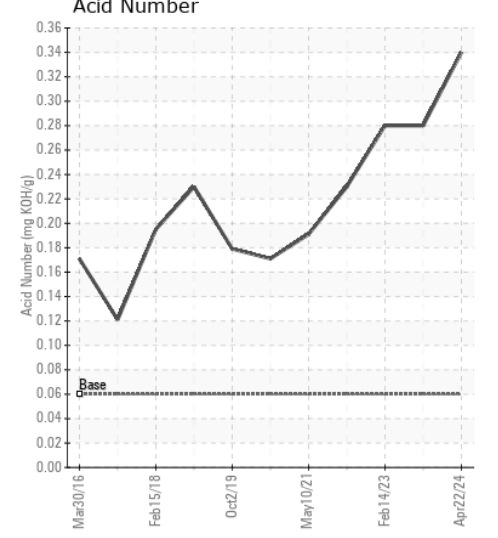
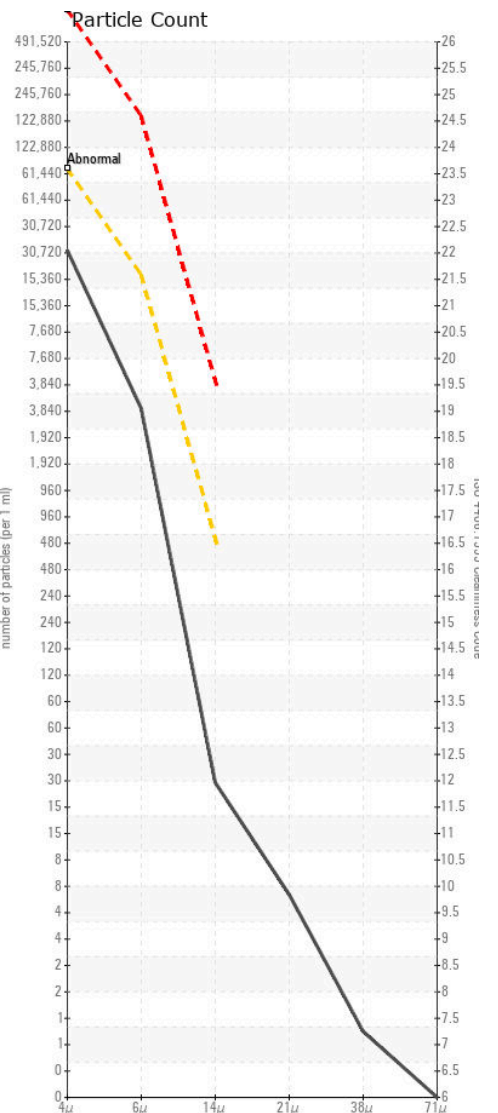
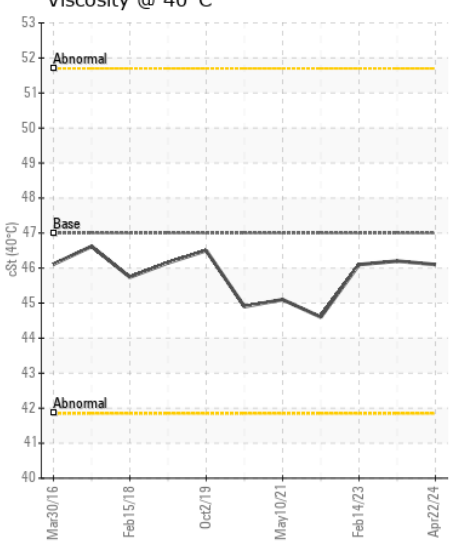
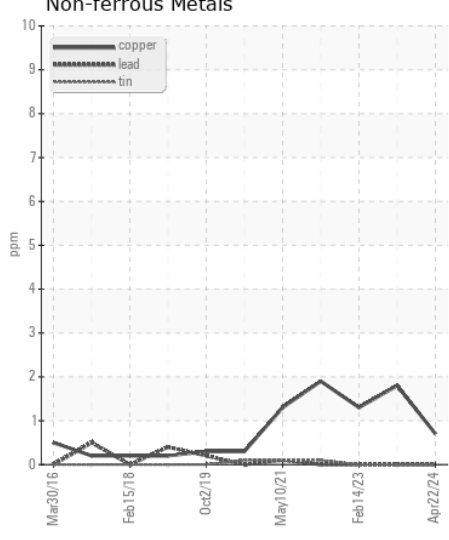
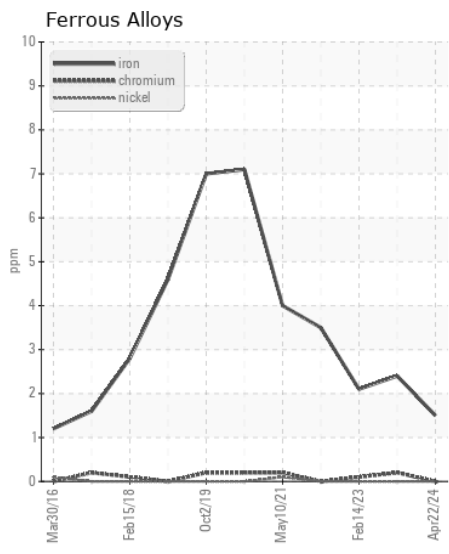
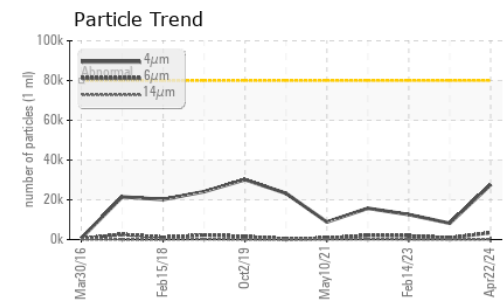
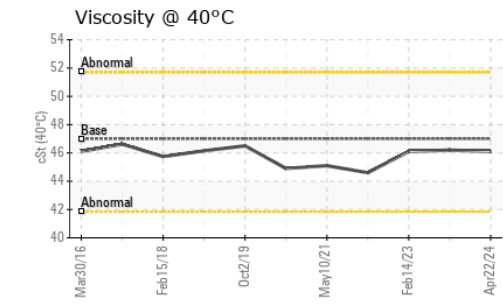
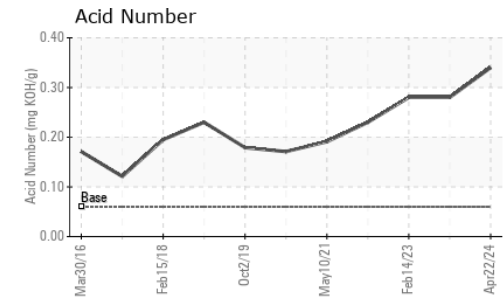
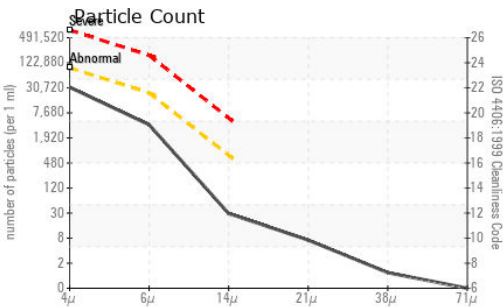
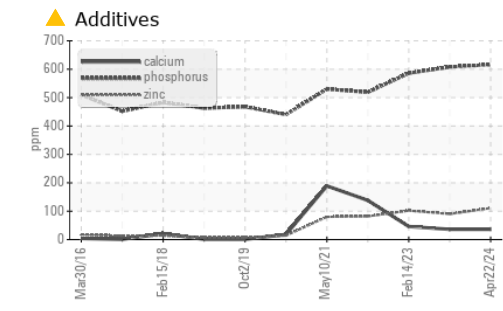
The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	<1	2	<1
Potassium	ppm	ASTM D5185m	>20	0	0	0
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	27555	8207	12577
Particles >6µm		ASTM D7647	>20000	3468	843	1844
Particles >14µm		ASTM D7647	>640	26	34	54
Particles >21µm		ASTM D7647	>160	6	7	10
Particles >38µm		ASTM D7647	>40	1	0	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	22/19/12	20/17/12	21/18/13
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.075	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>21	<1	<1	<1
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	<1
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m		59	38	48
Calcium	ppm	ASTM D5185m		36	36	46
Phosphorus	ppm	ASTM D5185m	827	616	608	586
Zinc	ppm	ASTM D5185m	0	▲ 111	▲ 90	▲ 102
Sulfur	ppm	ASTM D5185m	13	925	922	636
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.34	0.28	0.28
Visc @ 40°C	cSt	ASTM D445	47	46.1	46.2	46.1



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0918754
Lab Number : 06158967
Unique Number : 10994390
Test Package : CONST

CAROLINA SUNROCK
 PO BOX 25
 BUTNER, NC
 US 27509
 Contact: Leigh Dennis
 rdennis@thesunrockgroup.com
 T: (919)575-4505
 F: (919)575-0162

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)