



WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Machine Id
HITACHI 470-6 HCMJAG60H00060147
 Component
Hydraulic System
 Fluid
HITACHI HYDRAULIC SUPER EX 46HN (82 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0225171	JRMC471280	JRMC392640
Sample Date		Client Info		16 Jul 2024	30 Nov 2018	10 Sep 2018
Machine Age	hrs	Client Info		9360	2501	2139
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	Not Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				ATTENTION	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		14	14	15
Iron	ppm	ASTM D5185m	>20	5	3	2
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	0	<1	<1
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>75	<1	<1	<1
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

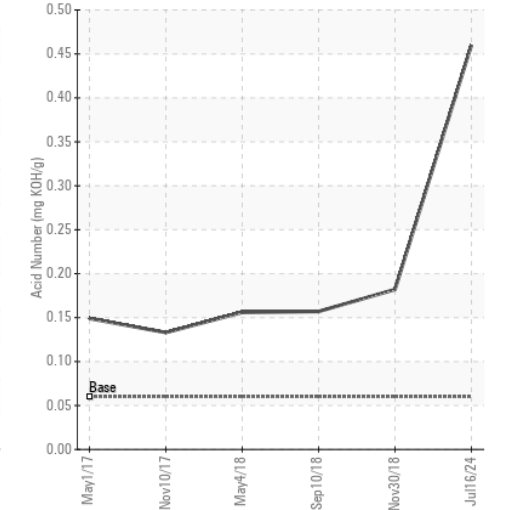
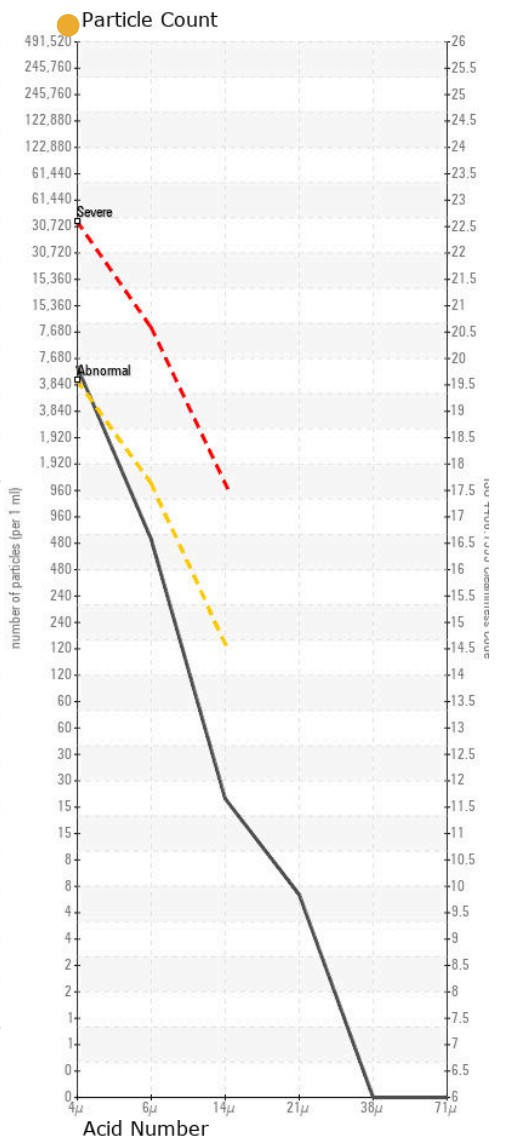
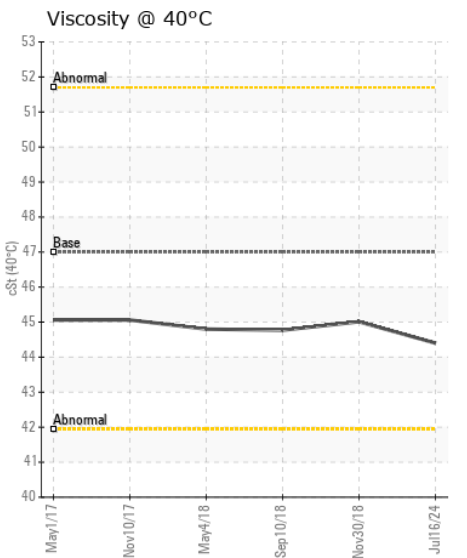
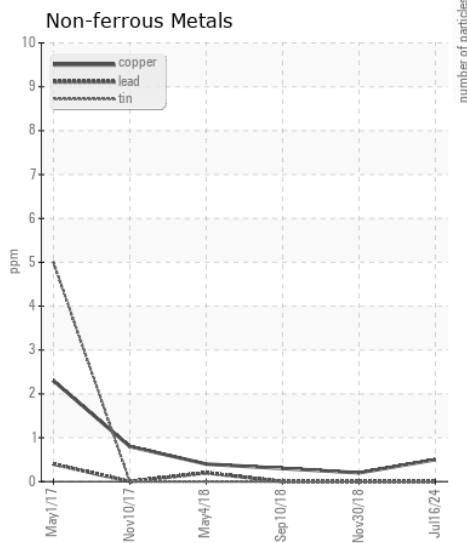
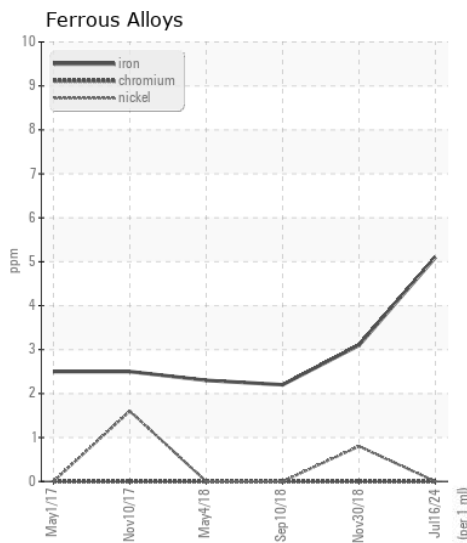
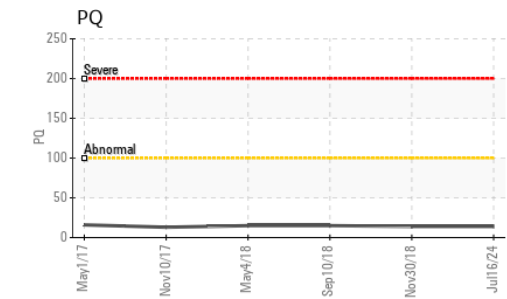
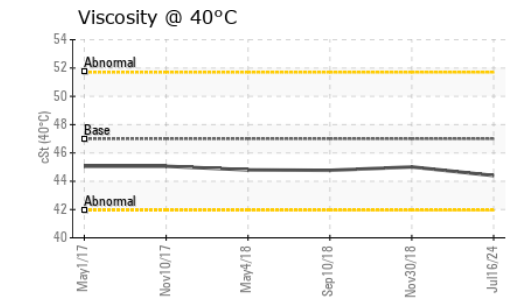
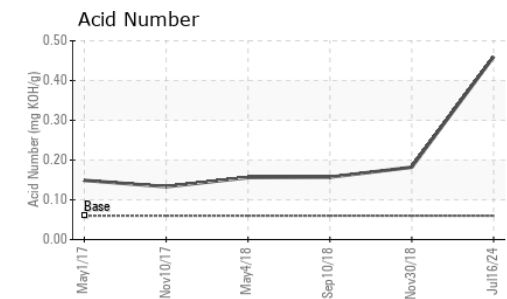
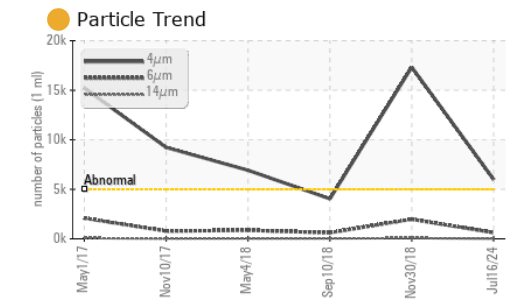
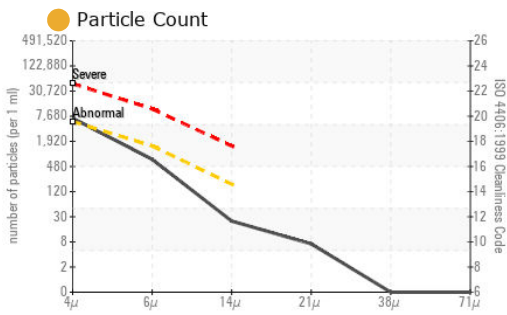
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	<1	1	1
Potassium	ppm	ASTM D5185m	>20	0	0	2
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	5997	▲ 17328	4038
Particles >6µm		ASTM D7647	>1300	626	▲ 1976	608
Particles >14µm		ASTM D7647	>160	21	69	39
Particles >21µm		ASTM D7647	>40	6	20	14
Particles >38µm		ASTM D7647	>10	0	3	1
Particles >71µm		ASTM D7647	>3	0	1	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	20/16/12	▲ 21/18/13	19/16/12
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	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	>0.1	NEG	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		1	<1	<1
Boron	ppm	ASTM D5185m		<1	0	0
Barium	ppm	ASTM D5185m		0	0	<1
Molybdenum	ppm	ASTM D5185m		0	<1	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		4	2	3
Calcium	ppm	ASTM D5185m		222	1	2
Phosphorus	ppm	ASTM D5185m	827	525	357	370
Zinc	ppm	ASTM D5185m	0	131	13	14
Sulfur	ppm	ASTM D5185m	13	1527	1706	1803
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	0.46	0.182	0.157
Visc @ 40°C	cSt	ASTM D445	47	44.4	45.01	44.77



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0225171 **Received** : 17 Jul 2024
Lab Number : 06239071 **Tested** : 18 Jul 2024
Unique Number : 11127905 **Diagnosed** : 19 Jul 2024 - Don Baldridge
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)

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