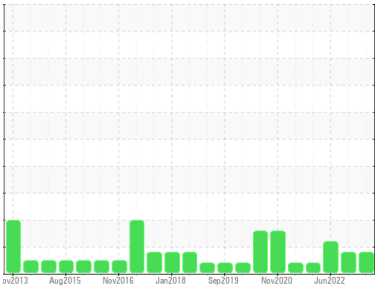
PROBLEM SUMMARY

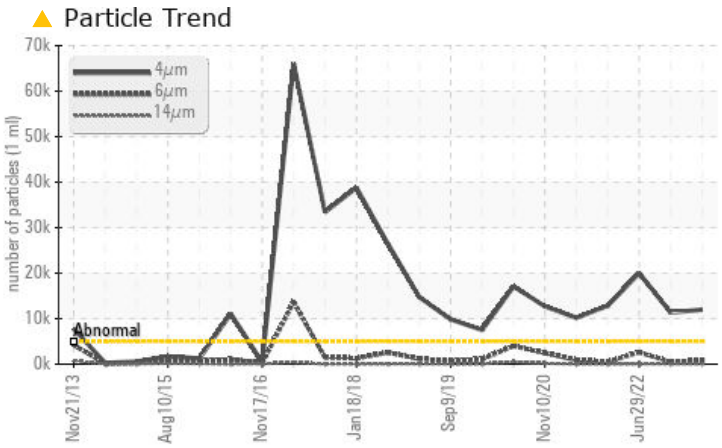
Sample Rating Trend



ISO

Machine Id
HITACHI 001543
Component
Hydraulic System
Fluid
TDH FLUID SAE 75W80 (51 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL
Particles >4µm		ASTM D7647	>5000	▲ **11974**	▲ 11338	▲ 19993
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **21/17/12**	▲ 21/16/12	▲ 21/19/13

Customer Id: CJMHAM
Sample No.: WC0823959
Lab Number: 05997322
Test Package: CONST

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

08 Feb 2023 Diag: Don Baldridge

ISO

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.All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report

29 Jun 2022 Diag: Doug Bogart

ISO

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report

05 Jan 2022 Diag: Don Baldridge

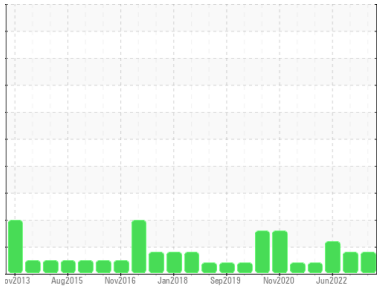
ISO

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.All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Machine Id
HITACHI 001543
Component
Hydraulic System
Fluid
TDH FLUID SAE 75W80 (51 GAL)

DIAGNOSIS

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

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 condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0823959**	WC0757981	WC0664824
Sample Date		Client Info		**25 Oct 2023**	08 Feb 2023	29 Jun 2022
Machine Age	hrs	Client Info		**11326**	10752	10102
Oil Age	hrs	Client Info		**1500**	650	1500
Oil Changed		Client Info		**Changed**	Not Changd	Changed
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**5**	4	4
Chromium	ppm	ASTM D5185m	>10	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>10	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	<1
Silver	ppm	ASTM D5185m		**0**	0	<1
Aluminum	ppm	ASTM D5185m	>10	**<1**	<1	2
Lead	ppm	ASTM D5185m	>10	**0**	0	<1
Copper	ppm	ASTM D5185m	>75	**2**	1	2
Tin	ppm	ASTM D5185m	>10	**0**	0	<1
Antimony	ppm	ASTM D5185m		**---**	---	---
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	10	**4**	4	3
Barium	ppm	ASTM D5185m	10	**0**	0	2
Molybdenum	ppm	ASTM D5185m	10	**3**	2	2
Manganese	ppm	ASTM D5185m		**0**	0	0
Magnesium	ppm	ASTM D5185m	100	**46**	39	18
Calcium	ppm	ASTM D5185m	3500	**515**	483	192
Phosphorus	ppm	ASTM D5185m	1150	**365**	378	342
Zinc	ppm	ASTM D5185m	1150	**488**	437	396
Sulfur	ppm	ASTM D5185m	5000	**1559**	1486	1339

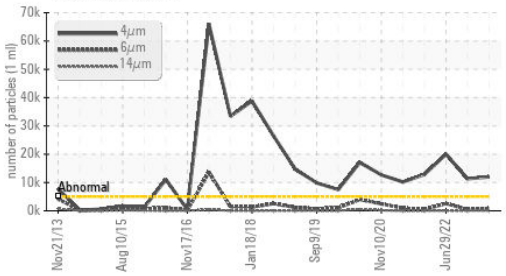
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**2**	2	2
Sodium	ppm	ASTM D5185m		**0**	<1	0
Potassium	ppm	ASTM D5185m	>20	**2**	0	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **11974**	▲ 11338	▲ 19993
Particles >6µm		ASTM D7647	>1300	**849**	447	▲ 2604
Particles >14µm		ASTM D7647	>160	**22**	33	46
Particles >21µm		ASTM D7647	>40	**5**	13	6
Particles >38µm		ASTM D7647	>10	**0**	0	0
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **21/17/12**	▲ 21/16/12	▲ 21/19/13

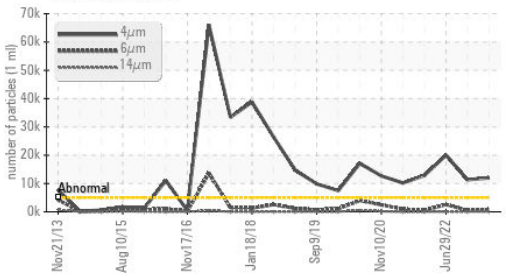
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	2.25	**0.42**	0.33	0.48

OIL ANALYSIS REPORT

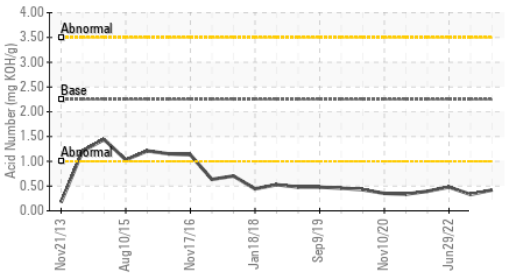
Particle Trend



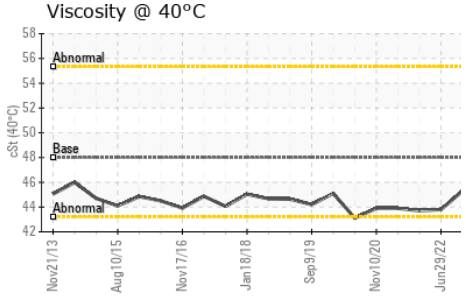
Particle Trend



Acid Number



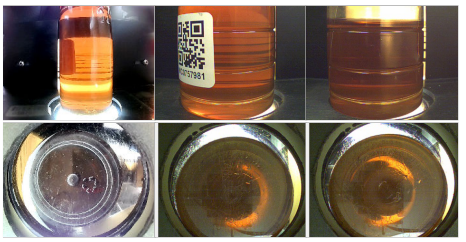
Viscosity @ 40°C



VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
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	>0.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

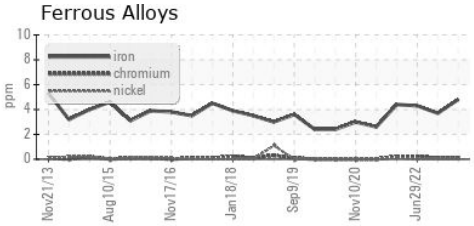
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	48	**45.7**	45.3	43.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

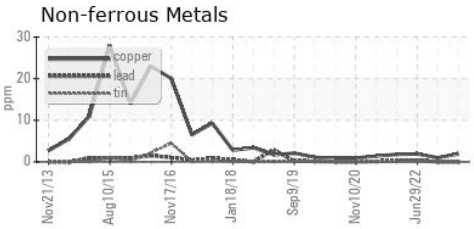


GRAPHS

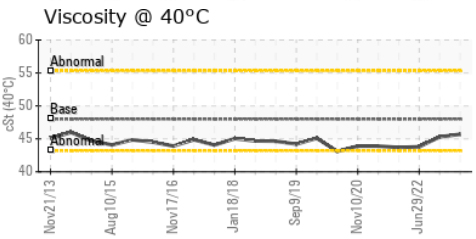
Ferrous Alloys



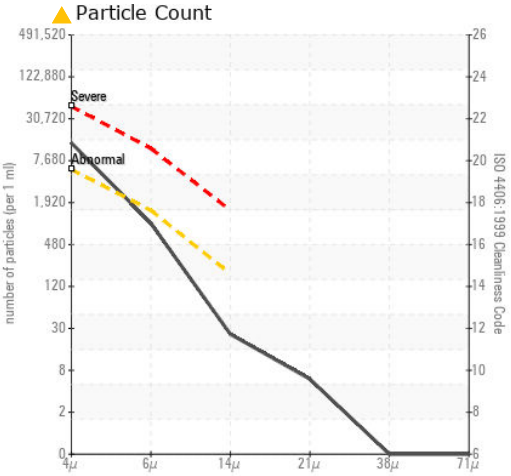
Non-ferrous Metals



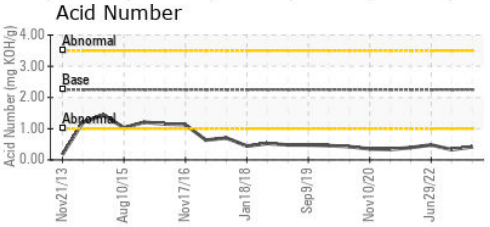
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0823959 **Received** : 02 Nov 2023
Lab Number : 05997322 **Diagnosed** : 05 Nov 2023
Unique Number : 10725682 **Diagnostician** : Don Baldridge
Test Package : CONST

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)

CJ MILLER LLC
2903 DEDE RD
FINKSBURG, MD
US 21048
Contact: JOE ROSS
jross@cjmillerllc.com
T: (410)239-8006
F: (410)239-1051