CONST

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Machine Id
HAMM 001941
Component
Hydraulic System
Fluid
CASTROL DUAL RANGE HV HYD OIL ISO 46 (11 QTS)

RECOMMENDATION

The 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

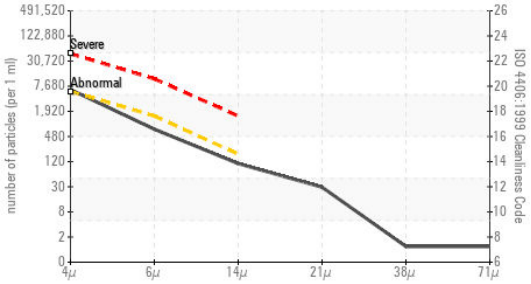
There is a light amount of silt (particulates < 14 microns in size) present in the oil.

FLUID CONDITION

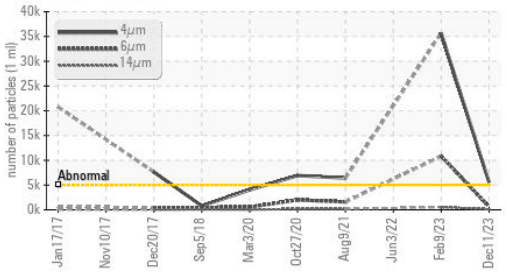
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0800500	WC0757976	WC0664793
Sample Date		Client Info		11 Dec 2023	09 Feb 2023	03 Jun 2022
Machine Age	hrs	Client Info		6128	5356	4628
Oil Age	hrs	Client Info		772	1500	645
Filter Age	hrs	Client Info		772	728	645
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>20	5	4	7
Chromium	ppm	ASTM D5185m	>10	<1	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	<1	<1
Aluminum	ppm	ASTM D5185m	>10	2	<1	<1
Lead	ppm	ASTM D5185m	>10	2	1	6
Copper	ppm	ASTM D5185m	>75	2	2	4
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	<1	1	1
Potassium	ppm	ASTM D5185m	>20	1	0	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 5564	▲ 35656	---
Particles >6µm		ASTM D7647	>1300	631	▲ 10834	---
Particles >14µm		ASTM D7647	>160	95	▲ 521	---
Particles >21µm		ASTM D7647	>40	26	▲ 115	---
Particles >38µm		ASTM D7647	>10	1	4	---
Particles >71µm		ASTM D7647	>3	1	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 20/16/14	▲ 22/21/16	---
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	▲ MODER
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
Sodium	ppm	ASTM D5185m		0	2	2
Boron	ppm	ASTM D5185m		9	12	23
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		2	3	2
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		58	35	13
Calcium	ppm	ASTM D5185m		230	257	258
Phosphorus	ppm	ASTM D5185m		395	329	391
Zinc	ppm	ASTM D5185m		400	340	354
Sulfur	ppm	ASTM D5185m		1875	2289	3194
Acid Number (AN)	mg KOH/g	ASTM D8045		0.42	0.42	0.57
Visc @ 40°C	cSt	ASTM D445	46.5	46.6	47.4	47.9

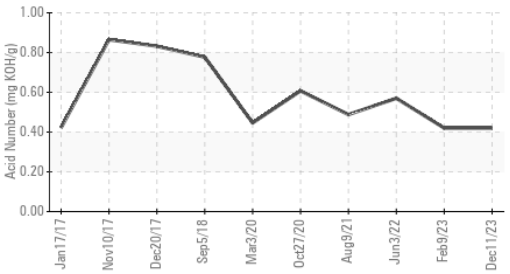
Particle Count



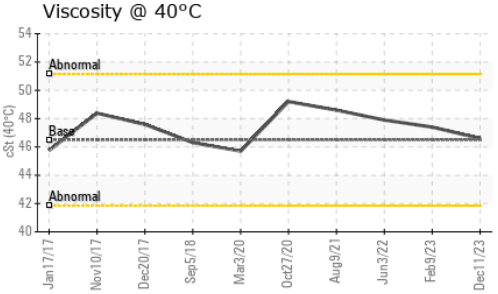
Particle Trend



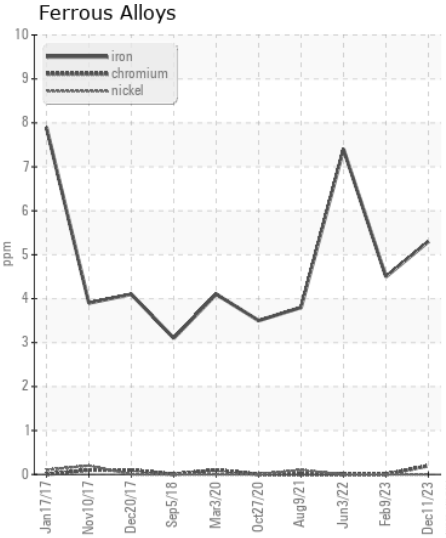
Acid Number



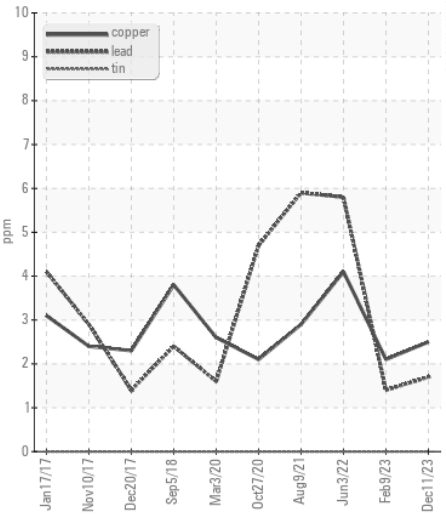
Viscosity @ 40°C



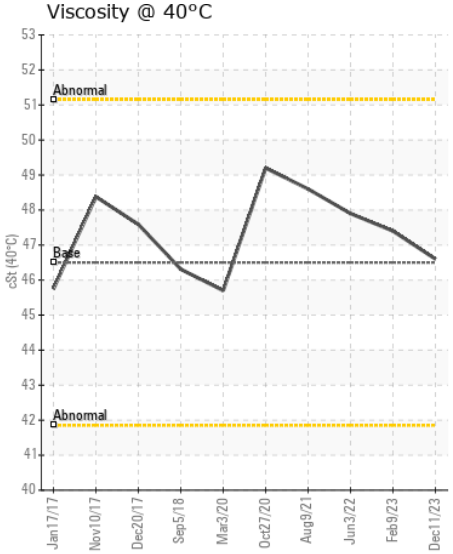
Ferrous Alloys



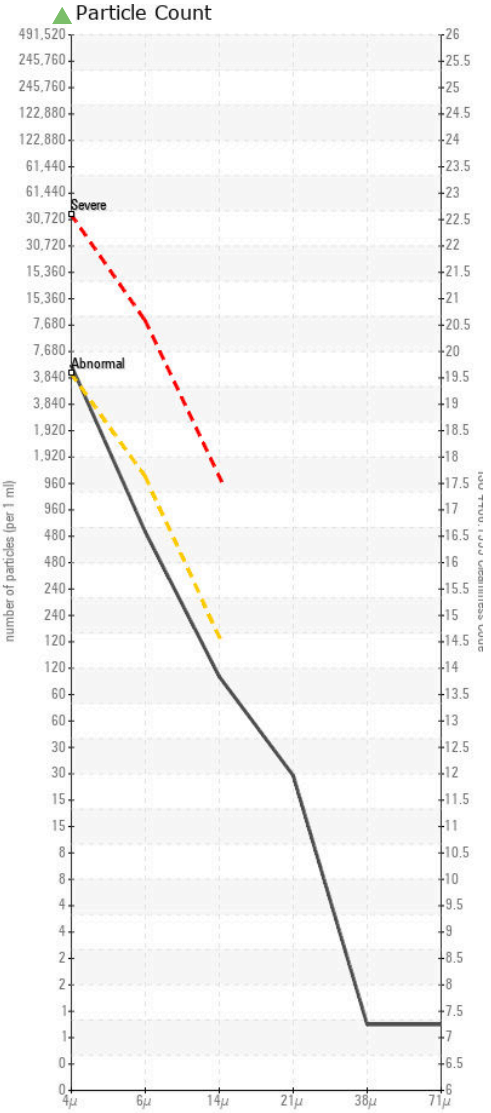
Non-ferrous Metals



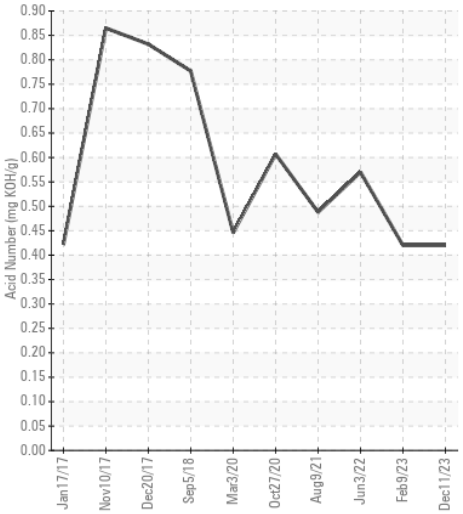
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: WC0800500	**Recieved**	: 12 Jan 2024
Lab Number	: 06060178	**Diagnosed**	: 16 Jan 2024
Unique Number	: 10831560	**Diagnostician**	: Wes Davis
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)

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