



OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION

Machine Id
002346
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

RECOMMENDATION

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0856161	WC0824001	WC0757968
Sample Date		Client Info		06 Jun 2024	16 Nov 2023	06 Feb 2023
Machine Age	hrs	Client Info		4081	3385	2488
Oil Age	hrs	Client Info		1500	897	2488
Filter Age	hrs	Client Info		696	897	631
Oil Changed		Client Info		Not Changed	Not Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	ABNORMAL	ABNORMAL

WEAR

The copper level is severe.

Iron	ppm	ASTM D5185m	>20	14	7	8
Chromium	ppm	ASTM D5185m	>10	0	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>10	<1	1	2
Lead	ppm	ASTM D5185m	>10	2	3	3
Copper	ppm	ASTM D5185m	>75	▲ 234	6	5
Tin	ppm	ASTM D5185m	>10	0	<1	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

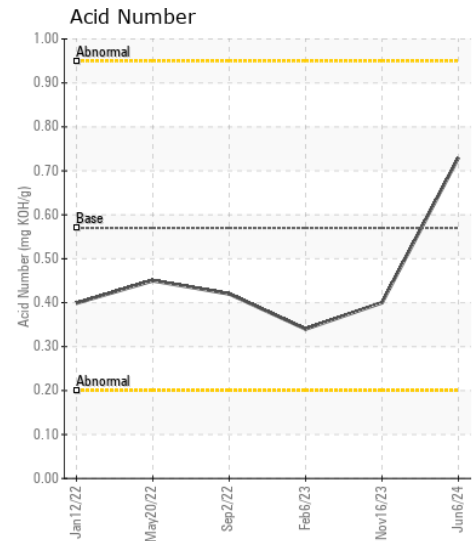
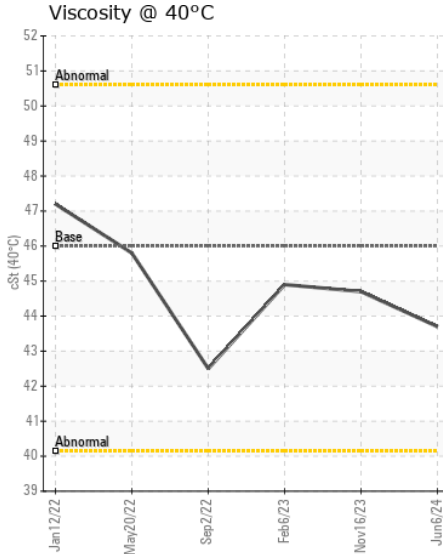
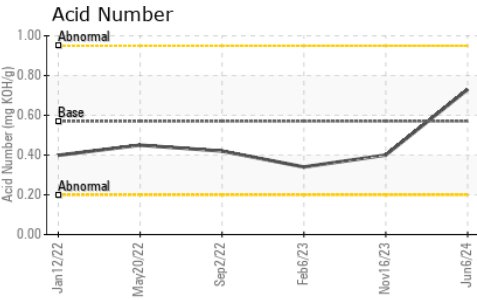
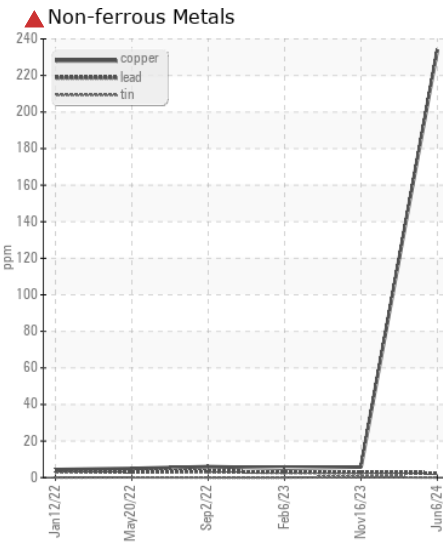
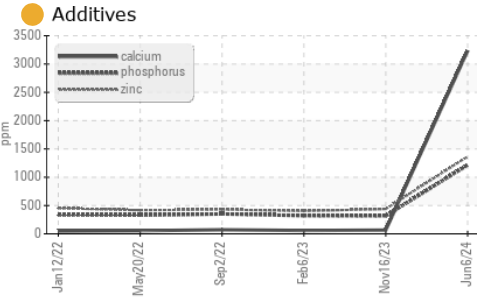
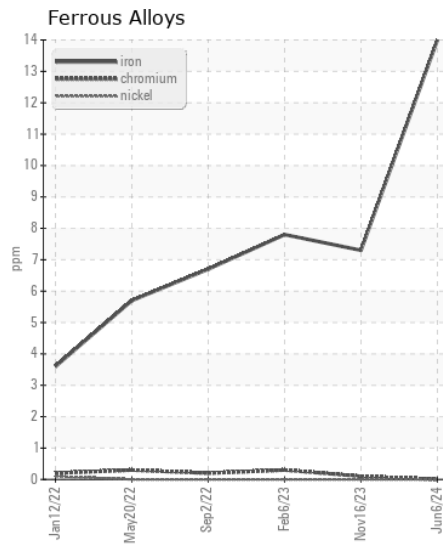
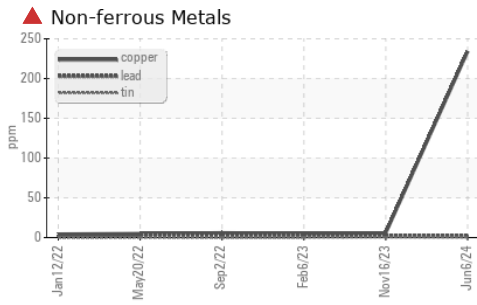
There is a moderate amount of visible silt present in the sample.

Silicon	ppm	ASTM D5185m	>20	13	5	5
Potassium	ppm	ASTM D5185m	>20	3	<1	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	---	▲ 19512	▲ 110222
Particles >6µm		ASTM D7647	>1300	---	▲ 5988	▲ 48511
Particles >14µm		ASTM D7647	>160	---	▲ 394	▲ 5869
Particles >21µm		ASTM D7647	>40	---	● 74	▲ 2294
Particles >38µm		ASTM D7647	>10	---	3	▲ 58
Particles >71µm		ASTM D7647	>3	---	0	1
Oil Cleanliness		ISO 4406 (c)	>19/17/14	---	▲ 21/20/16	▲ 24/23/20
Silt	scalar	*Visual	NONE	▲ MODER	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
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

Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		5	2	2
Boron	ppm	ASTM D5185m	5	● 92	0	0
Barium	ppm	ASTM D5185m	5	3	0	0
Molybdenum	ppm	ASTM D5185m	5	0	0	<1
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	25	16	6	3
Calcium	ppm	ASTM D5185m	200	● 3234	66	59
Phosphorus	ppm	ASTM D5185m	300	● 1217	317	319
Zinc	ppm	ASTM D5185m	370	● 1364	439	402
Sulfur	ppm	ASTM D5185m	2500	4392	1875	2070
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.73	0.40	0.34
Visc @ 40°C	cSt	ASTM D445	46	43.7	44.7	44.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0856161 **Received** : 09 Jul 2024
Lab Number : 06231445 **Tested** : 15 Jul 2024
Unique Number : 11114938 **Diagnosed** : 15 Jul 2024 - Jonathan Hester
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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