



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Machine Id  
**IMT 227**  
Component  
**Hydraulic System**  
Fluid  
**CASTROL AERIAL HYD FLUID 22 (30 GAL)**

## RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ST44063</b>	ST42433	ST38344
Sample Date		Client Info		<b>07 Jul 2023</b>	22 Aug 2022	07 Aug 2019
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ATTENTION</b>	NORMAL	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

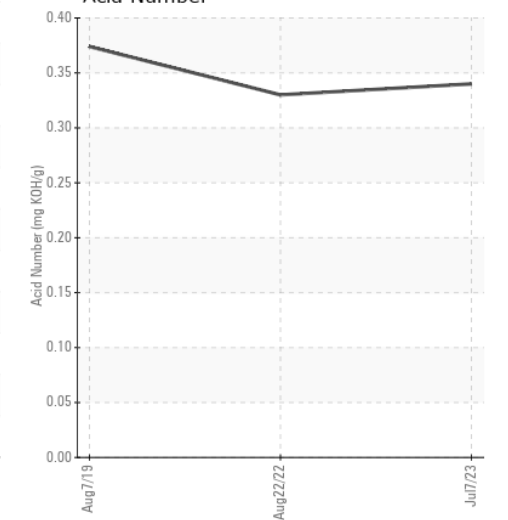
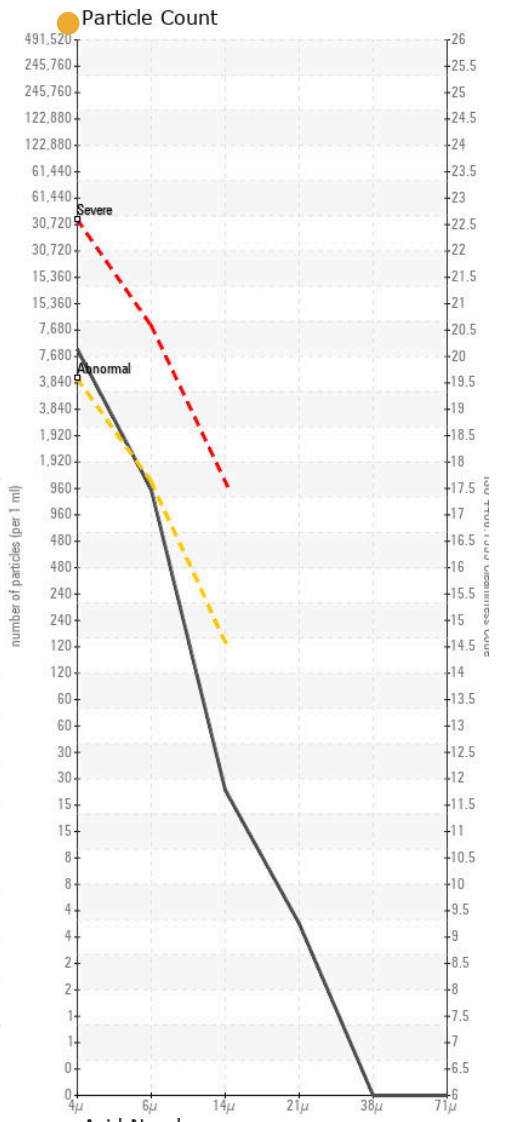
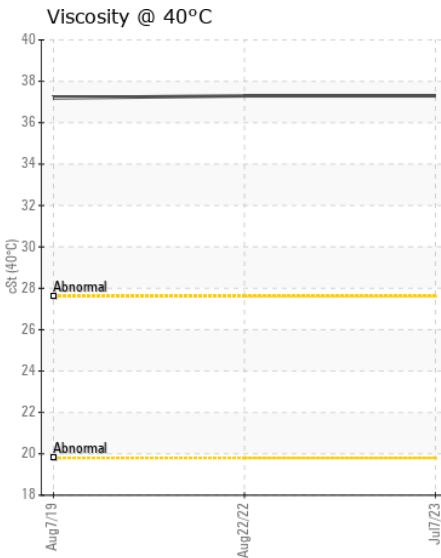
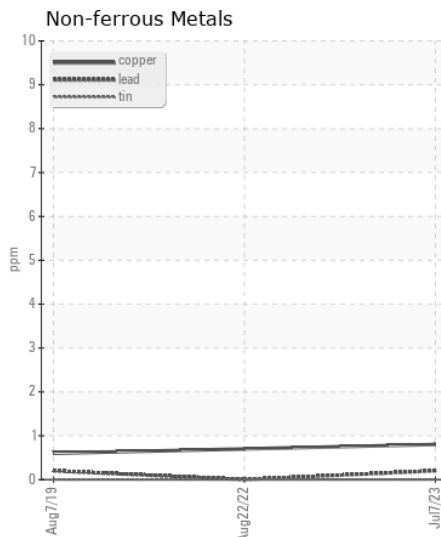
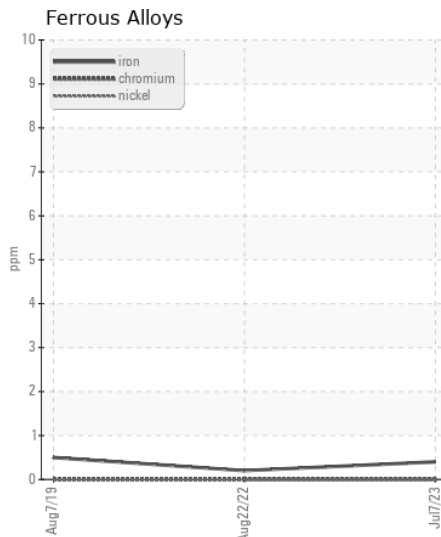
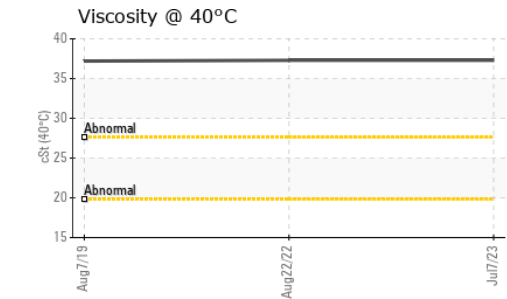
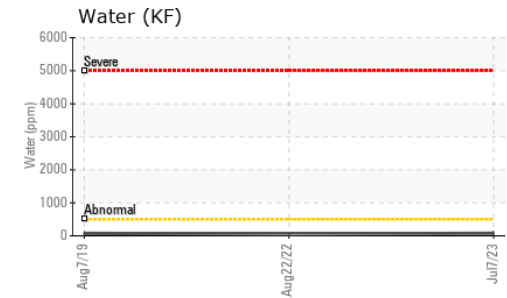
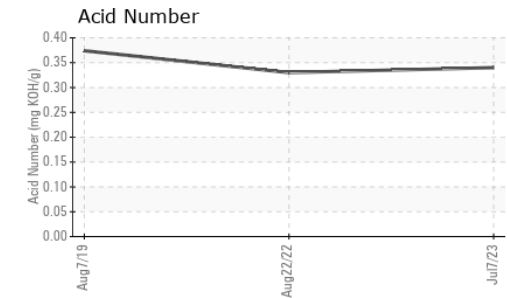
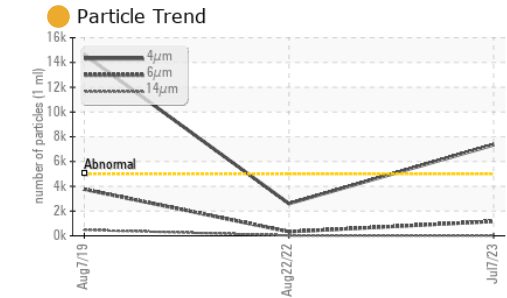
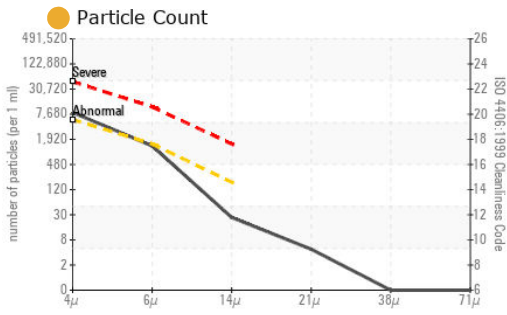
There is a light amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

Silicon	ppm	ASTM D5185m	>15	<b>1</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	0	<1
Water	%	ASTM D6304	>0.05	<b>0.007</b>	0.005	0.007
ppm Water	ppm	ASTM D6304	>500	<b>75.6</b>	56.7	74.0
Particles >4µm		ASTM D7647	>5000	<b>7350</b>	2602	▲ 14635
Particles >6µm		ASTM D7647	>1300	<b>1171</b>	329	▲ 3760
Particles >14µm		ASTM D7647	>160	<b>23</b>	26	▲ 479
Particles >21µm		ASTM D7647	>40	<b>4</b>	12	▲ 178
Particles >38µm		ASTM D7647	>10	<b>0</b>	1	▲ 19
Particles >71µm		ASTM D7647	>3	<b>0</b>	1	▲ 2
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>20/17/12</b>	19/16/12	▲ 21/19/16
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	<b>NEG</b>	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		<b>4</b>	7	5
Boron	ppm	ASTM D5185m		<b>&lt;1</b>	0	3
Barium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Molybdenum	ppm	ASTM D5185m		<b>1</b>	1	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>0</b>	<1	2
Calcium	ppm	ASTM D5185m		<b>116</b>	171	107
Phosphorus	ppm	ASTM D5185m		<b>284</b>	293	258
Zinc	ppm	ASTM D5185m		<b>364</b>	363	340
Sulfur	ppm	ASTM D5185m		<b>2736</b>	2359	1930
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.34</b>	0.33	0.374
Visc @ 40°C	cSt	ASTM D445		<b>37.3</b>	37.3	37.2



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ST44063 **Received** : 08 Aug 2023  
**Lab Number** : 05919227 **Tested** : 09 Aug 2023  
**Unique Number** : 10591141 **Diagnosed** : 09 Aug 2023 - Wes Davis  
**Test Package** : IND 2 ( Additional Tests: KF )

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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