



Machine Id  
**ALTEC 348**  
Component  
**Hydraulic System**  
Fluid  
**CASTROL AERIAL FLUID 22 (30 GAL)**

**RECOMMENDATION**

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		<b>ST43593</b>	ST42162	ST42469
Sample Date		Client Info		<b>23 Aug 2023</b>	29 Aug 2022	03 Sep 2021
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>ABNORMAL</b>	ABNORMAL	ATTENTION

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	1
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	0	0
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>20	<b>1</b>	4	5
Tin	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

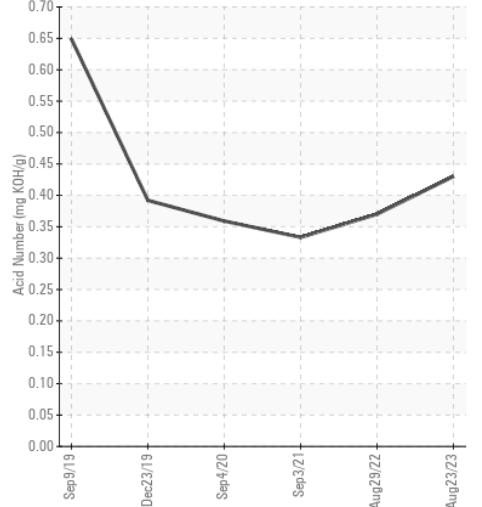
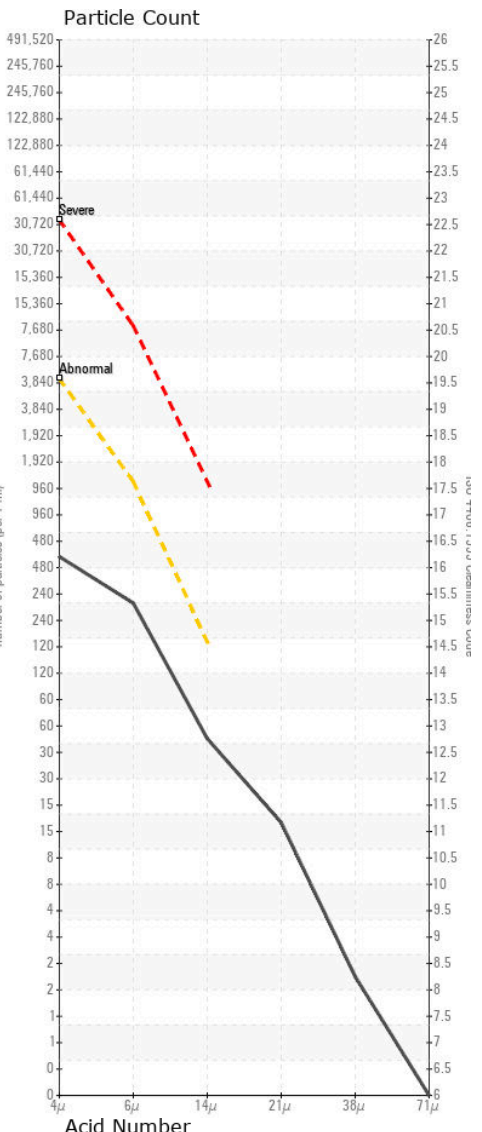
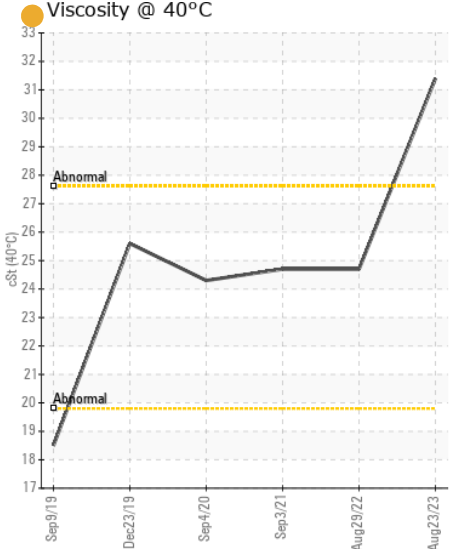
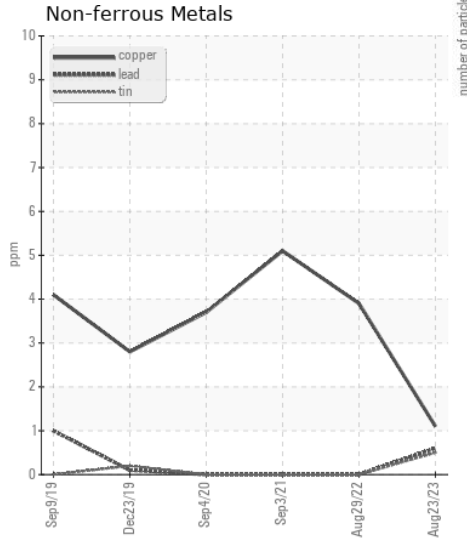
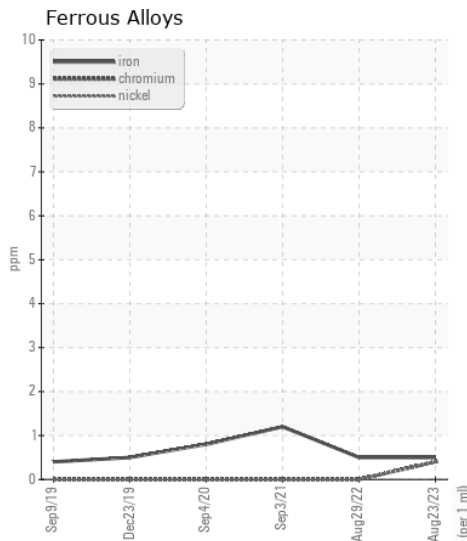
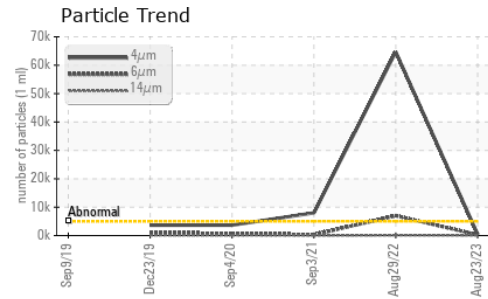
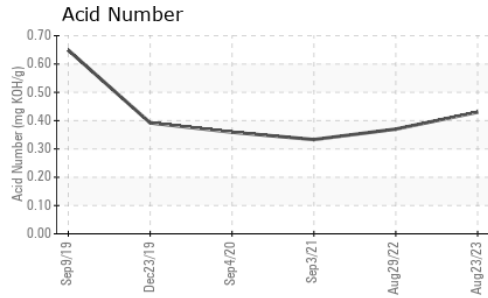
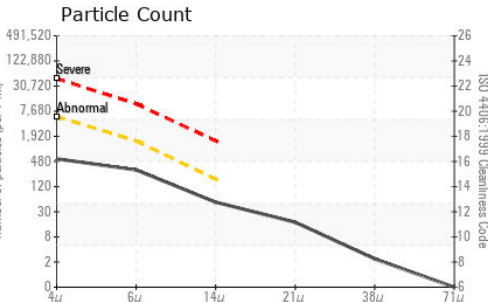
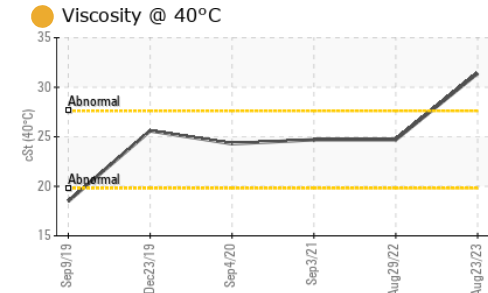
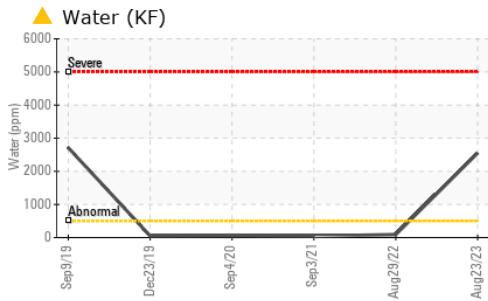
There is a light concentration of water present in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>15	<b>2</b>	0	0
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Water	%	ASTM D6304	>0.05	<b>▲ 0.255</b>	0.009	0.004
ppm Water	ppm	ASTM D6304	>500	<b>▲ 2550</b>	91.8	43.4
Particles >4µm		ASTM D7647	>5000	<b>487</b>	▲ 64670	● 8001
Particles >6µm		ASTM D7647	>1300	<b>265</b>	▲ 6986	● 336
Particles >14µm		ASTM D7647	>160	<b>45</b>	101	21
Particles >21µm		ASTM D7647	>40	<b>15</b>	33	5
Particles >38µm		ASTM D7647	>10	<b>2</b>	5	1
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>16/15/13</b>	▲ 23/20/14	● 20/16/12
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>0.2%</b>	NEG	NEG

**FLUID CONDITION**

Viscosity of sample indicates oil is within ISO 32 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		<b>0</b>	2	<1
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>52</b>	0	0
Calcium	ppm	ASTM D5185m		<b>8</b>	38	47
Phosphorus	ppm	ASTM D5185m		<b>218</b>	478	356
Zinc	ppm	ASTM D5185m		<b>323</b>	330	375
Sulfur	ppm	ASTM D5185m		<b>1137</b>	956	852
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.43</b>	0.37	0.333
Visc @ 40°C	cSt	ASTM D445		<b>31.4</b>	24.7	24.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ST43593  
**Lab Number** : 06223498  
**Unique Number** : 11101695  
**Test Package** : IND 2 ( Additional Tests: KF )

**Received** : 28 Jun 2024  
**Tested** : 03 Jul 2024  
**Diagnosed** : 03 Jul 2024 - Jonathan Hester

**COBB EMC**  
 1000 EMC PKWY  
 MARIETTA, GA  
 US 30060

Contact: WADE HARRIS  
 wade.harris@cobbemc.com

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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