



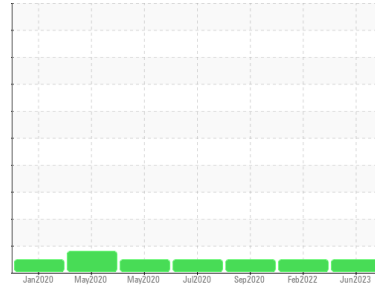
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**CATERPILLAR TUSCO 034 G6TE**  
 Component  
**Natural Gas Engine**  
 Fluid  
**ALPHA AXIOS SAE 40 LOW ASH (250 GAL)**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0472396</b>	WC0472394	WCM2243301
Sample Date	Client Info		<b>09 Jun 2023</b>	16 Feb 2022	14 Sep 2020
Machine Age	hrs	Client Info	<b>8181</b>	5000	1558
Oil Age	hrs	Client Info	<b>1500</b>	1400	680
Oil Changed	Client Info		<b>Changed</b>	Not Changd	Not Changd
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >15	<1	1	<1
Chromium	ppm	ASTM D5185m >5	0	0	<1
Nickel	ppm	ASTM D5185m >2	0	0	<1
Titanium	ppm	ASTM D5185m >2	0	0	0
Silver	ppm	ASTM D5185m >2	0	0	<1
Aluminum	ppm	ASTM D5185m >10	<1	<1	<1
Lead	ppm	ASTM D5185m >10	0	<1	<1
Copper	ppm	ASTM D5185m >10	<1	<1	6
Tin	ppm	ASTM D5185m >5	0	0	<1
Antimony	ppm	ASTM D5185m	---	0	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	1	<1	1
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	10	<1	19
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m	<1	2	0
Calcium	ppm	ASTM D5185m	1189	1298	1304
Phosphorus	ppm	ASTM D5185m	229	266	280
Zinc	ppm	ASTM D5185m	290	345	342
Sulfur	ppm	ASTM D5185m	982	979	1033

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >300	<1	1	2
Sodium	ppm	ASTM D5185m	0	0	0
Potassium	ppm	ASTM D5185m >20	1	1	1

## INFRA-RED

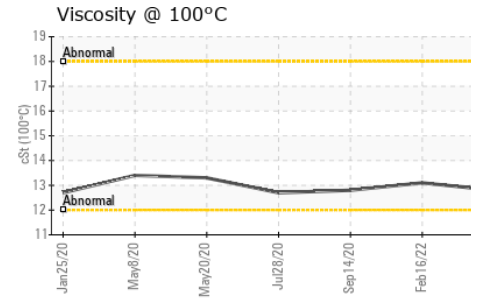
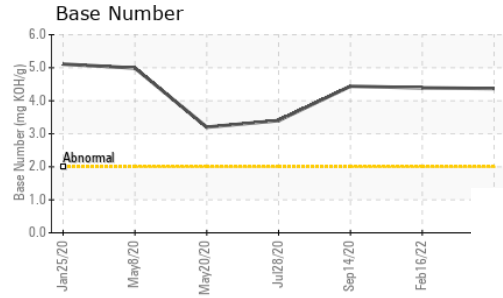
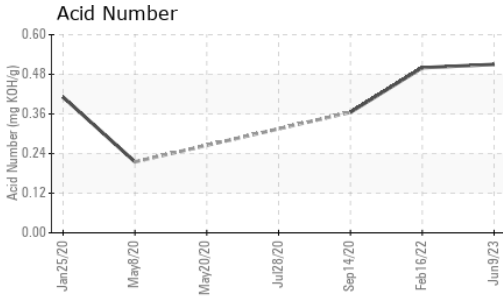
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	0	0
Nitration	Abs/cm	*ASTM D7624 >20	5.3	5.1	4.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	13.3	14.0	13.3

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	8.0	8.5	7.3
Acid Number (AN)	mg KOH/g	ASTM D8045	0.51	0.50	0.365
Base Number (BN)	mg KOH/g	ASTM D2896	4.37	4.39	4.44



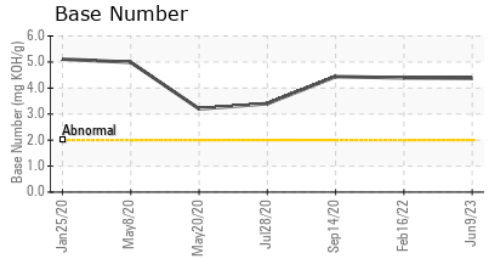
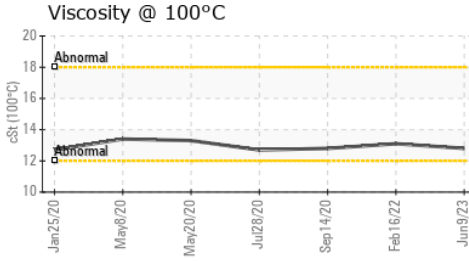
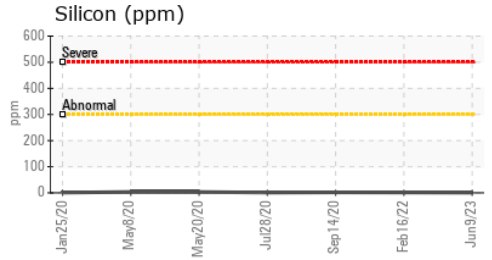
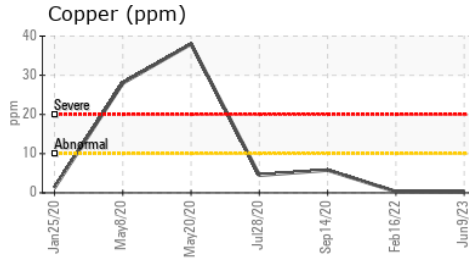
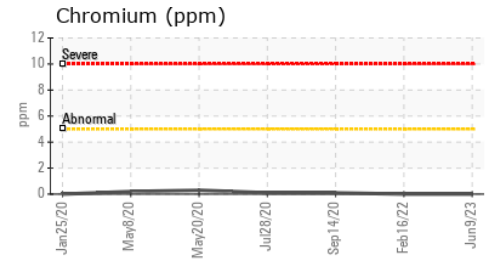
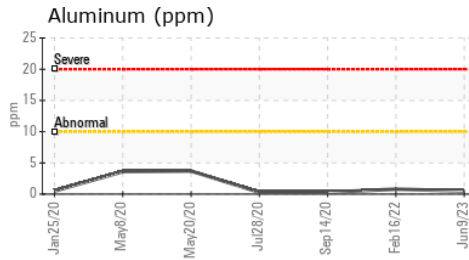
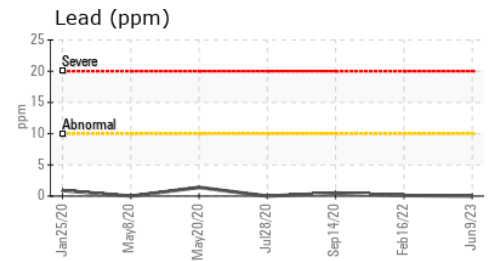
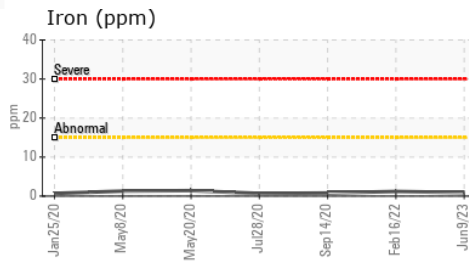
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.8	13.1	12.8

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : WC0472396 Received : 26 Sep 2023  
 Lab Number : 05961361 Diagnosed : 27 Sep 2023  
 Unique Number : 10662574 Diagnostician : Wes Davis  
 Test Package : MOB 2

**TUSCO HARDWOODS**  
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 SUGARCREEK, OH  
 US 44681  
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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)