



# OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id  
**BOMAG 54141**  
 Component  
**Diesel Engine**  
 Fluid  
**CHEVRON 15W40 (--- QTS)**

## RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0857123</b>	WC0786601	WC0689230
Sample Date		Client Info		<b>08 Jul 2024</b>	09 Mar 2023	31 May 2022
Machine Age	hrs	Client Info		<b>2111</b>	1898	1669
Oil Age	hrs	Client Info		<b>250</b>	200	490
Filter Age	hrs	Client Info		<b>250</b>	200	490
Oil Changed		Client Info		<b>Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>32</b>	31	46
Chromium	ppm	ASTM D5185m	>20	<b>11</b>	5	7
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>2</b>	1	3
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>15</b>	7	14
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	2	1
Tin	ppm	ASTM D5185m	>15	<b>1</b>	1	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

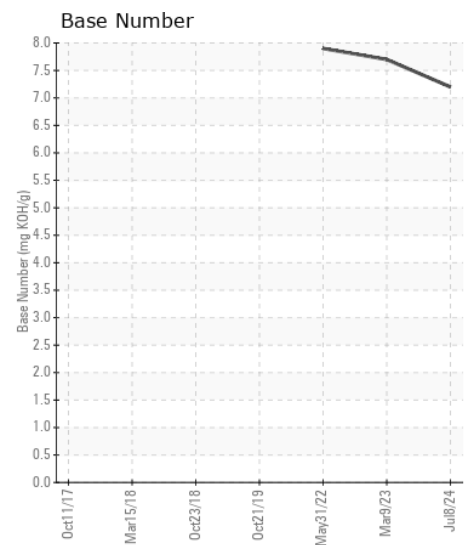
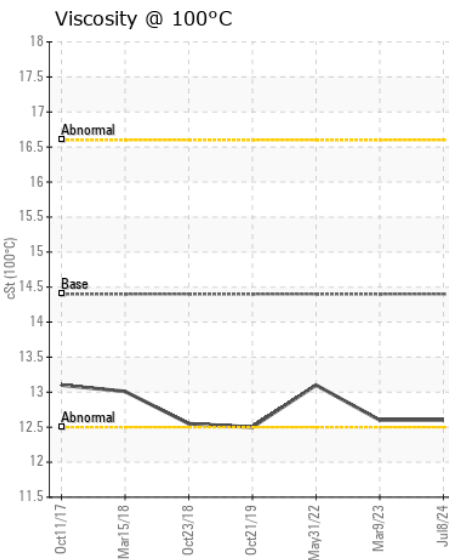
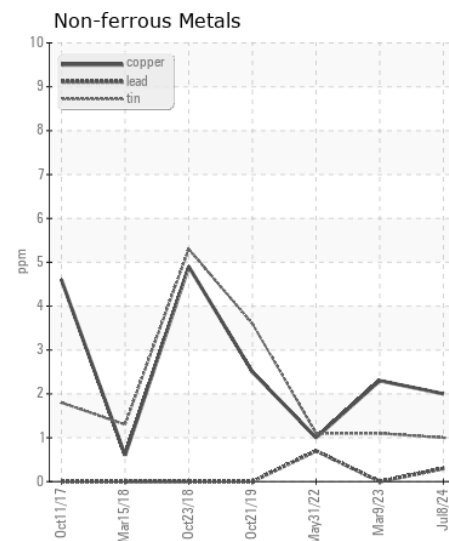
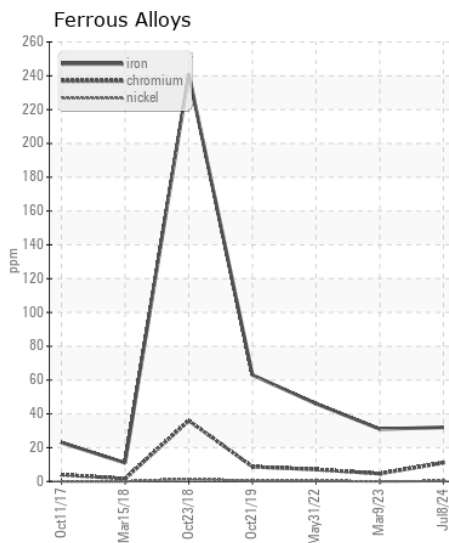
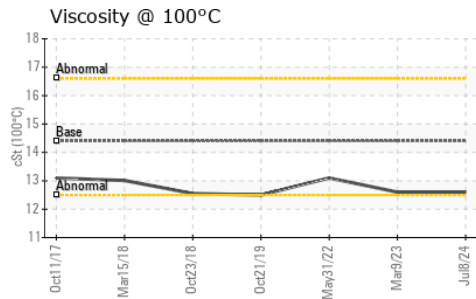
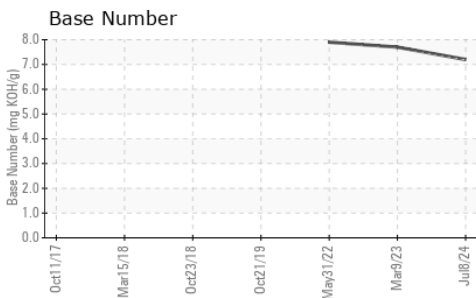
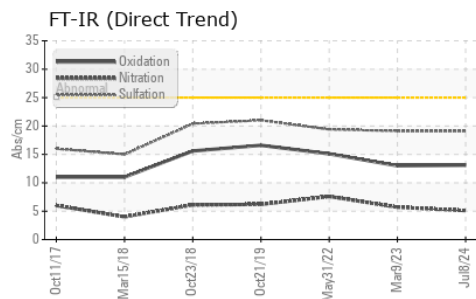
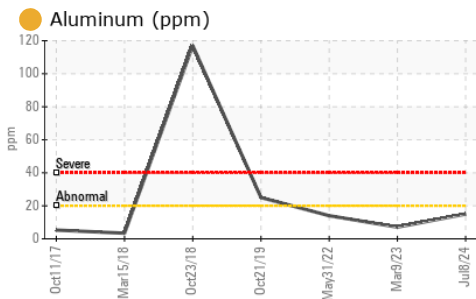
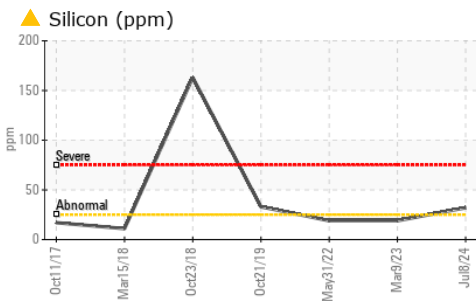
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>25	<b>▲ 32</b>	19	19
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	0	2
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.1</b>	5.7	7.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.1</b>	19.1	19.4
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	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>50	<b>&lt;1</b>	2	2
Boron	ppm	ASTM D5185m		<b>415</b>	385	262
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>81</b>	85	90
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m		<b>328</b>	351	251
Calcium	ppm	ASTM D5185m		<b>1398</b>	1479	1697
Phosphorus	ppm	ASTM D5185m		<b>1034</b>	952	930
Zinc	ppm	ASTM D5185m		<b>1163</b>	1155	1136
Sulfur	ppm	ASTM D5185m		<b>3125</b>	3314	3426
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.1</b>	13.0	15.1
Base Number (BN)	mg KOH/g	ASTM D2896		<b>7.2</b>	7.7	7.9
Visc @ 100°C	cSt	ASTM D445	14.4	<b>12.6</b>	12.6	13.1



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0857123 **Received** : 11 Jul 2024  
**Lab Number** : 06233044 **Tested** : 11 Jul 2024  
**Unique Number** : 11116537 **Diagnosed** : 12 Jul 2024 - Don Baldridge  
**Test Package** : CONST ( Additional Tests: TBN )

**SULLIVAN EASTERN INC**  
 2860 C SLATER RD  
 MORRISVILLE, NC  
 US 27560

Contact: SCOTT SULLIVAN  
 ssullivan@sullivaneastern.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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