OIL ANALYSIS REPORT

Sample Rating Trend

WEAR

Machine Id
BMW 24858-03
Component
Gasoline Engine
Fluid
NOT GIVEN (--- QTS)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time.

Wear
Cylinder, crank, or cam shaft wear is indicated. Bearing and/or bushing wear is indicated.

Contamination
There is no indication of any contamination in the oil.

Fluid Condition
The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WCM2005005**	---	---
Sample Date		Client Info		**01 Nov 2023**	---	---
Machine Age	mls	Client Info		**0**	---	---
Oil Age	mls	Client Info		**0**	---	---
Oil Changed		Client Info		**N/A**	---	---
Sample Status				**ABNORMAL**	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	▲ **314**	---	---
Chromium	ppm	ASTM D5185m	>20	**2**	---	---
Nickel	ppm	ASTM D5185m	>5	**9**	---	---
Titanium	ppm	ASTM D5185m		**<1**	---	---
Silver	ppm	ASTM D5185m	>2	**0**	---	---
Aluminum	ppm	ASTM D5185m	>40	**34**	---	---
Lead	ppm	ASTM D5185m	>50	**3**	---	---
Copper	ppm	ASTM D5185m	>155	▲ **297**	---	---
Tin	ppm	ASTM D5185m	>10	▲ **14**	---	---
Vanadium	ppm	ASTM D5185m		**0**	---	---
Cadmium	ppm	ASTM D5185m		**0**	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**32**	---	---
Barium	ppm	ASTM D5185m		**0**	---	---
Molybdenum	ppm	ASTM D5185m		**61**	---	---
Manganese	ppm	ASTM D5185m		**6**	---	---
Magnesium	ppm	ASTM D5185m		**354**	---	---
Calcium	ppm	ASTM D5185m		**1202**	---	---
Phosphorus	ppm	ASTM D5185m		**600**	---	---
Zinc	ppm	ASTM D5185m		**735**	---	---
Sulfur	ppm	ASTM D5185m		**1926**	---	---

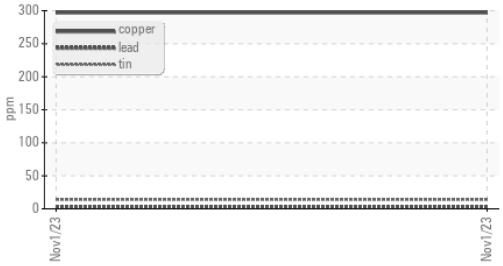
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	**12**	---	---
Sodium	ppm	ASTM D5185m	>400	**2**	---	---
Potassium	ppm	ASTM D5185m	>20	**4**	---	---
Fuel	%	ASTM D3524	>4.0	**<1.0**	---	---
Glycol	%	*ASTM D2982		**NEG**	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0.1**	---	---
Nitration	Abs/cm	*ASTM D7624	>20	**11.9**	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	**23.0**	---	---

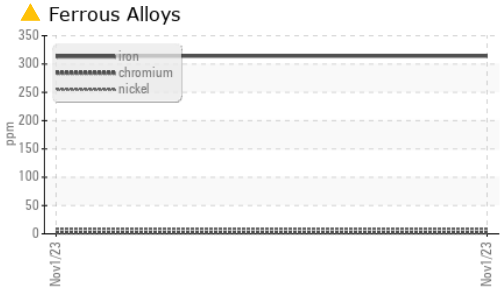
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**24.7**	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		**1.51**	---	---

OIL ANALYSIS REPORT

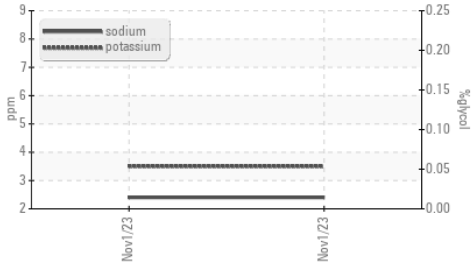
Non-ferrous Metals



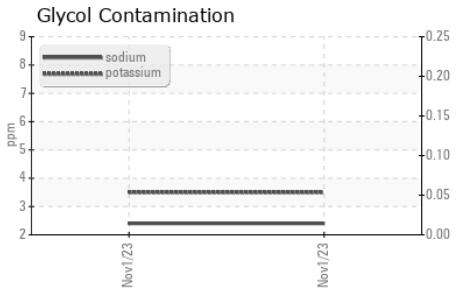
Ferrous Alloys



Glycol Contamination



Glycol Contamination

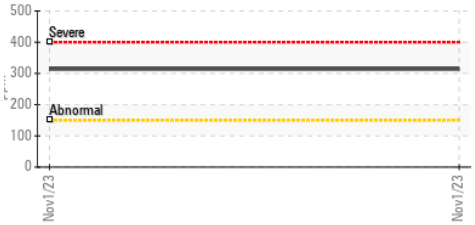


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	---	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	---	---
Precipitate	scalar	*Visual	NONE	**NONE**	---	---
Silt	scalar	*Visual	NONE	**NONE**	---	---
Debris	scalar	*Visual	NONE	**NONE**	---	---
Sand/Dirt	scalar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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445		**9.1**	---	---

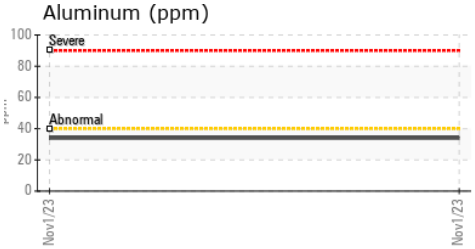
GRAPHS

Iron (ppm)

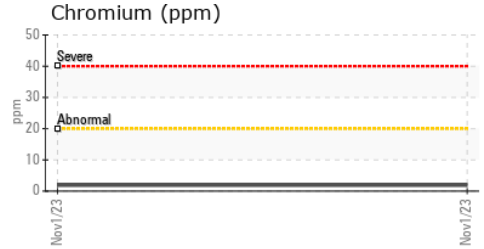


Lead (ppm)

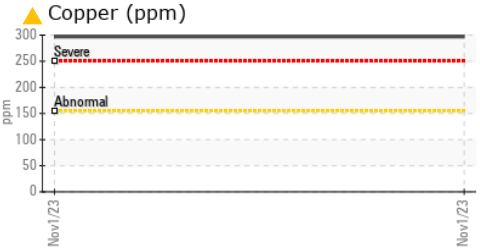
Aluminum (ppm)



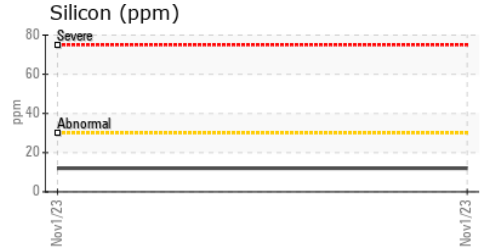
Chromium (ppm)



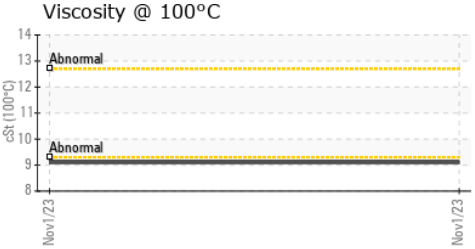
Copper (ppm)



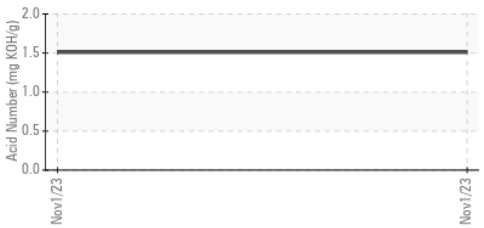
Silicon (ppm)



Viscosity @ 100°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WCM2005005 **Received** : 07 Nov 2023
Lab Number : 06001120 **Diagnosed** : 09 Nov 2023
Unique Number : 10729480 **Diagnostician** : Jonathan Hester
Test Package : MOB 2 (Additional Tests: FuelDilution, Glycol, PercentFuel)

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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