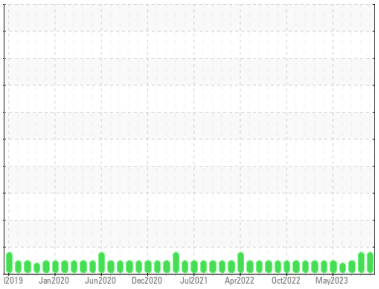
PROBLEM SUMMARY

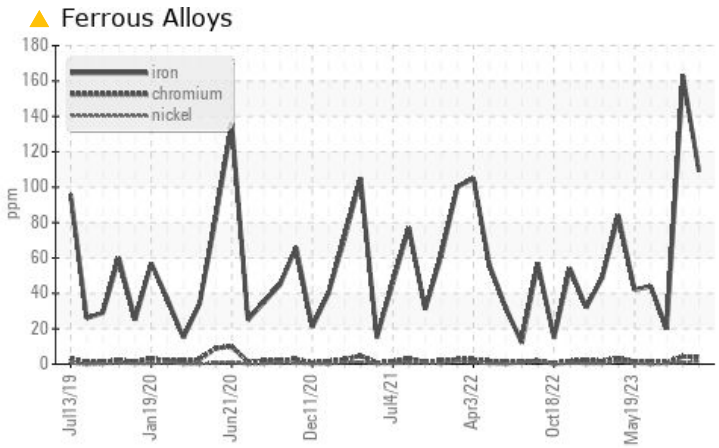
Sample Rating Trend



WEAR

Area
MACHINE SHOP
Machine Id
0-5939-0000 DEC MANIPULATOR
Component
Diesel Engine
Fluid
ROYAL PURPLE 15W40 CI-4 (HD) (22 QTS)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time.
Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	▲ 109	▲ 163	20

Customer Id: ALLMONMACH
Sample No.: WC0864211
Lab Number: 06026677
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Sean Felton +1 919-379-4092
sfelton@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

09 Oct 2023 Diag: Jonathan Hester

WEAR

No corrective action is recommended at this time. Resample at the next service interval to monitor.Cylinder, crank, or cam shaft wear is indicated. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

27 Aug 2023 Diag: Wes Davis

NORMAL

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

02 Jul 2023 Diag: Doug Bogart

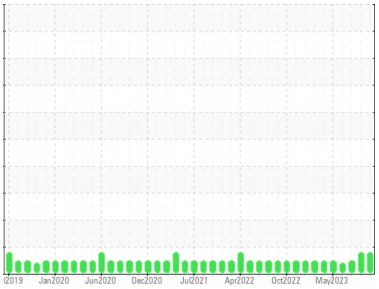
VISCOSITY

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
MACHINE SHOP
Machine Id
0-5939-0000 DEC MANIPULATOR
Component
Diesel Engine
Fluid
ROYAL PURPLE 15W40 CI-4 (HD) (22 QTS)

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

▲ Wear

Cylinder, crank, or cam shaft wear is indicated.

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 condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0864211**	WC0864202	WC0821650
Sample Date		Client Info		**03 Dec 2023**	09 Oct 2023	27 Aug 2023
Machine Age	hrs	Client Info		**36522**	35419	34617
Oil Age	hrs	Client Info		**0**	35419	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	▲ **109**	▲ 163	20
Chromium	ppm	ASTM D5185m	>20	**4**	4	<1
Nickel	ppm	ASTM D5185m	>4	**2**	1	<1
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**3**	15	4
Lead	ppm	ASTM D5185m	>40	**9**	10	1
Copper	ppm	ASTM D5185m	>330	**11**	24	11
Tin	ppm	ASTM D5185m	>15	**1**	<1	0
Vanadium	ppm	ASTM D5185m		**<1**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**<1**	1	2
Barium	ppm	ASTM D5185m		**<1**	2	0
Molybdenum	ppm	ASTM D5185m	120	**79**	71	58
Manganese	ppm	ASTM D5185m		**<1**	2	<1
Magnesium	ppm	ASTM D5185m		**20**	19	19
Calcium	ppm	ASTM D5185m	3000	**3729**	4116	3319
Phosphorus	ppm	ASTM D5185m	1150	**1166**	1318	1137
Zinc	ppm	ASTM D5185m	1250	**1497**	1683	1314
Sulfur	ppm	ASTM D5185m	16000	**15008**	19279	17511

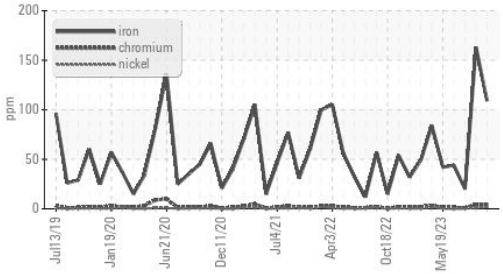
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**8**	8	4
Sodium	ppm	ASTM D5185m		**3**	5	<1
Potassium	ppm	ASTM D5185m	>20	**2**	3	2

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**2.1**	2.1	0.4
Nitration	Abs/cm	*ASTM D7624	>20	**10.8**	10.8	5.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	**34.9**	34.7	25.7

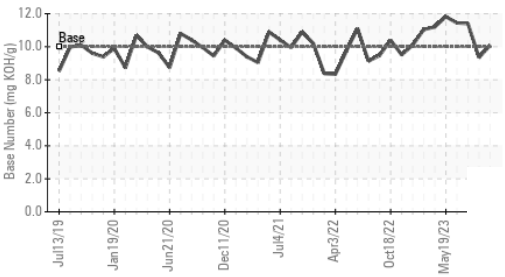
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**22.2**	21.8	16.5
Base Number (BN)	mg KOH/g	ASTM D2896	10	**10.08**	9.35	11.40

OIL ANALYSIS REPORT

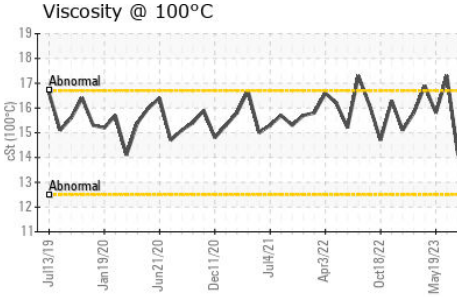
Ferrous Alloys



Base Number



Viscosity @ 100°C

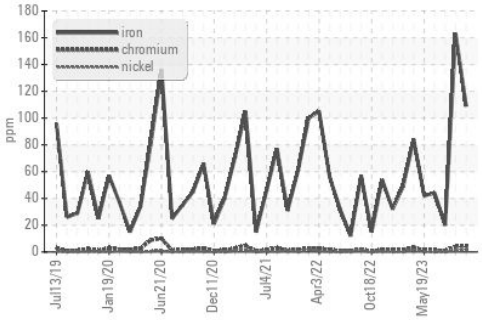


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

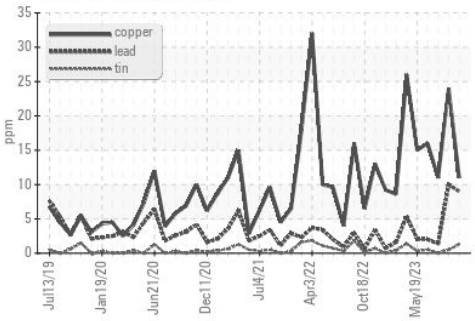
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445		**15.4**	15.4	14.1

GRAPHS

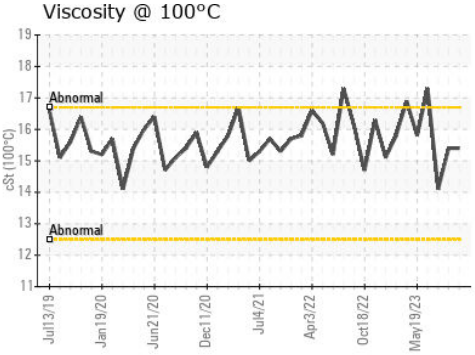
Ferrous Alloys



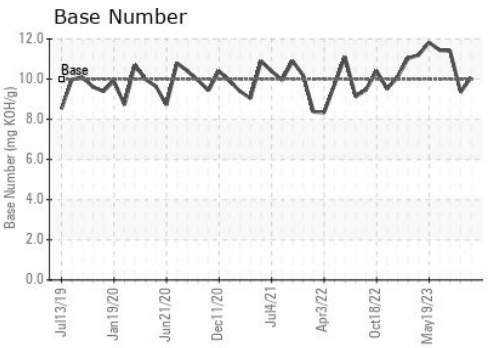
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0864211
Lab Number : 06026677
Unique Number : 10776468
Test Package : IND 2

Received : 06 Dec 2023
Diagnosed : 07 Dec 2023
Diagnostician : Sean Felton

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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