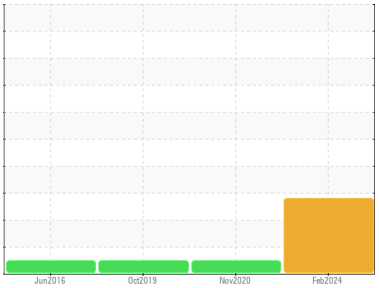
PROBLEM SUMMARY

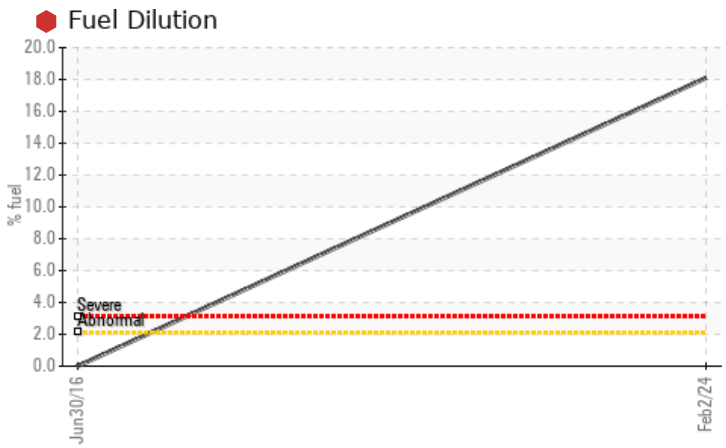
Sample Rating Trend

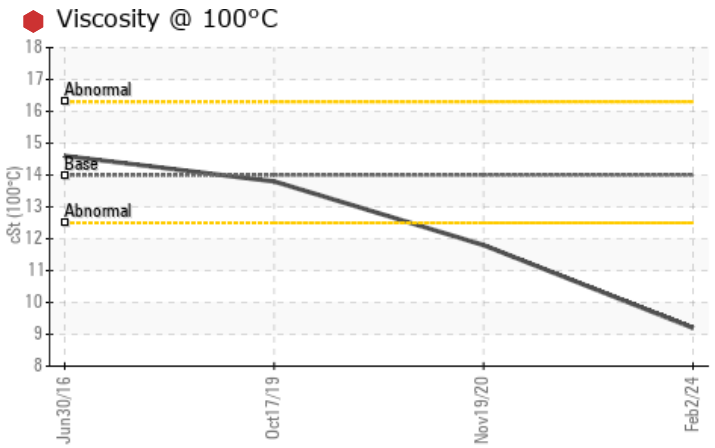


FUEL

Area
OKLAHOMA/102/EG - OTHER SERVICE
Machine Id
87.21 - TORQUE HUB [OKLAHOMA^102^EG - OTHER SERVICE]
Component
Diesel Engine
Fluid
MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

COMPONENT CONDITION SUMMARY





RECOMMENDATION

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	NORMAL	NORMAL
Fuel	%	ASTM D3524	>2.1	**18.1**	<1.0	<1.0
Visc @ 100°C	cSt	ASTM D445	14	**9.2**	11.8	13.8

Customer Id: SHEWIC
Sample No.: WC0886928
Lab Number: 06098110
Test Package: CONST

To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

19 Nov 2020 Diag: Wes Davis

NORMAL

Resample at the next service interval to monitor.Metal levels are typical for a new component breaking in. 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

17 Oct 2019 Diag: Wes Davis

NORMAL

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

view report

30 Jun 2016 Diag: Don Baldridge

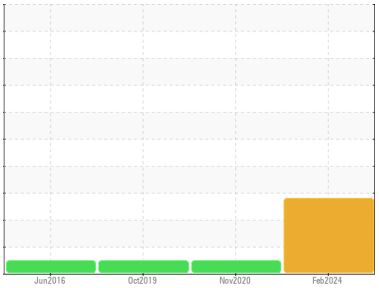
NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the component. 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

OIL ANALYSIS REPORT

Sample Rating Trend



FUEL

Area
OKLAHOMA/102/EG - OTHER SERVICE
Machine Id
87.21 - TORQUE HUB [OKLAHOMA^102^EG - OTHER SERVICE]
Component
Diesel Engine
Fluid
MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

DIAGNOSIS

Recommendation
We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear
All component wear rates are normal.

Contamination
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0886928**	WC0501450	WC0337659
Sample Date		Client Info		**02 Feb 2024**	19 Nov 2020	17 Oct 2019
Machine Age	hrs	Client Info		**563**	130	5287
Oil Age	hrs	Client Info		**250**	250	134
Oil Changed		Client Info		**Changed**	Changed	N/A
Sample Status				**SEVERE**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.21	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>51	**16**	12	9
Chromium	ppm	ASTM D5185m	>11	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>5	**<1**	<1	<1
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>31	**1**	<1	2
Lead	ppm	ASTM D5185m	>26	**0**	<1	0
Copper	ppm	ASTM D5185m	>26	**2**	<1	1
Tin	ppm	ASTM D5185m	>4	**<1**	<1	<1
Antimony	ppm	ASTM D5185m		**---**	0	0
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	0	**45**	60	62
Barium	ppm	ASTM D5185m	0	**0**	0	<1
Molybdenum	ppm	ASTM D5185m	0	**14**	40	42
Manganese	ppm	ASTM D5185m		**<1**	<1	1
Magnesium	ppm	ASTM D5185m	0	**498**	482	525
Calcium	ppm	ASTM D5185m		**1057**	1611	1608
Phosphorus	ppm	ASTM D5185m		**535**	690	681
Zinc	ppm	ASTM D5185m		**636**	867	839
Sulfur	ppm	ASTM D5185m		**1971**	1926	2379

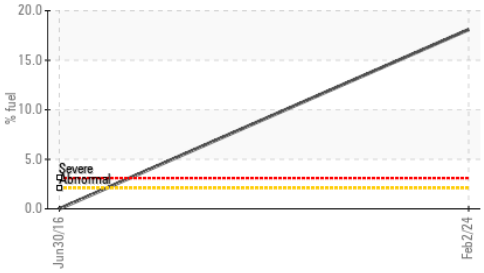
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>22	**4**	4	7
Sodium	ppm	ASTM D5185m	>31	**3**	2	5
Potassium	ppm	ASTM D5185m	>20	**2**	<1	2
Fuel	%	ASTM D3524	>2.1	**18.1**	<1.0	<1.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.1**	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	**10.2**	8.2	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	**19.7**	23	21.1

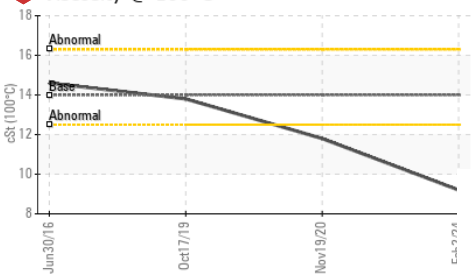
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**18.1**	21.8	19.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.4	**7.4**	9.8	10

OIL ANALYSIS REPORT

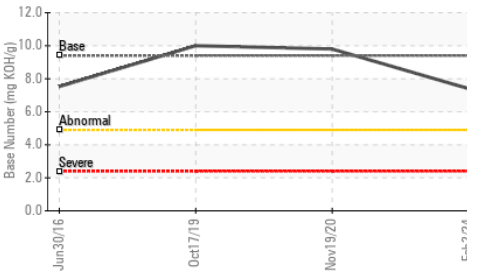
Fuel Dilution



Viscosity @ 100°C



Base Number

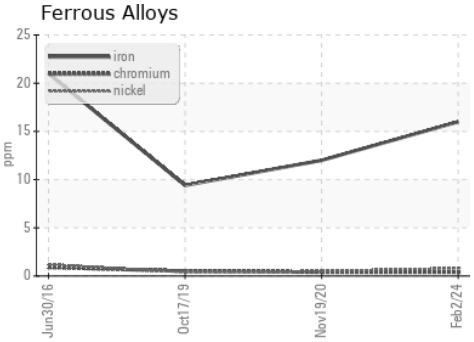


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

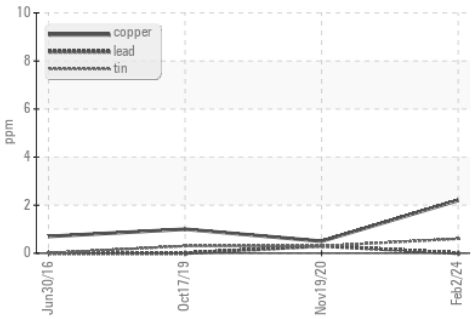
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14	**9.2**	11.8	13.8

GRAPHS

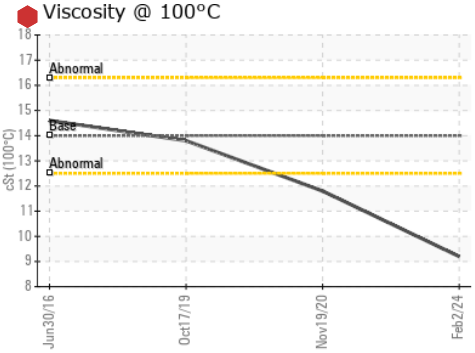
Ferrous Alloys



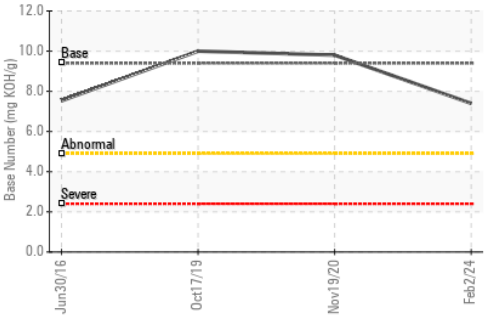
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0886928
Lab Number : 06098110
Unique Number : 10896340
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

Received : 23 Feb 2024
Tested : 27 Feb 2024
Diagnosed : 27 Feb 2024 - Wes Davis

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)

SHERWOOD CONSTRUCTION CO INC
3219 WEST MAY ST
WICHITA, KS
US 67213
Contact: DOUG KING
doug.king@sherwood.net
T: (316)617-3161
F: x:

Report Id: SHEWIC [WUSCAR] 06098110 (Generated: 02/27/2024 09:22:09) Rev: 1

Submitted By: PATRICIA BIBLE