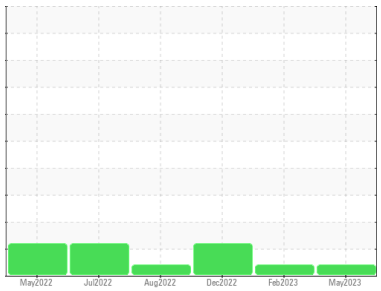
OIL ANALYSIS REPORT

Area
KANSAS/44/HY - SKID STEER
Machine Id
53.157L [KANSAS^44^HY - SKID STEER]
Component
Diesel Engine
Fluid
MOBIL DELVAC 1300 SUPER15W40 (2 GAL)

Sample Rating Trend



VISCOSITY

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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0799056**	WC0749873	WC0749917
Sample Date		Client Info		**19 May 2023**	01 Feb 2023	05 Dec 2022
Machine Age	hrs	Client Info		**1121**	909	849
Oil Age	hrs	Client Info		**0**	549	0
Oil Changed		Client Info		**Not Changd**	Changed	Not Changd
Sample Status				**ATTENTION**	ATTENTION	ABNORMAL

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	**19**	15	15
Chromium	ppm	ASTM D5185m	>20	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>2	**0**	0	0
Titanium	ppm	ASTM D5185m	>2	**<1**	<1	<1
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**3**	2	2
Lead	ppm	ASTM D5185m	>40	**0**	0	0
Copper	ppm	ASTM D5185m	>330	**101**	99	▲ 144
Tin	ppm	ASTM D5185m	>15	**<1**	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	**59**	76	71
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	0	**23**	19	11
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	0	**647**	588	679
Calcium	ppm	ASTM D5185m		**1678**	1492	1599
Phosphorus	ppm	ASTM D5185m		**764**	685	741
Zinc	ppm	ASTM D5185m		**968**	841	895
Sulfur	ppm	ASTM D5185m		**3291**	2615	3476

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**7**	7	6
Sodium	ppm	ASTM D5185m		**2**	2	1
Potassium	ppm	ASTM D5185m	>20	**3**	3	4

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.1**	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	**10.8**	9.4	11.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	**23.3**	21.7	22.9

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**22.3**	19.2	19.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.4	**6.9**	8.0	7.4

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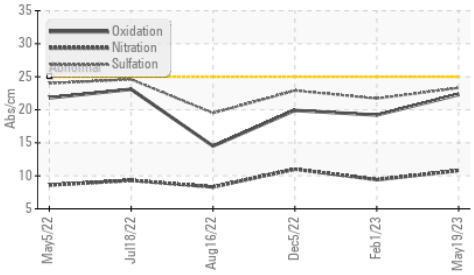
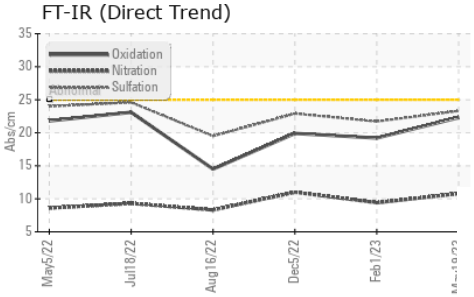
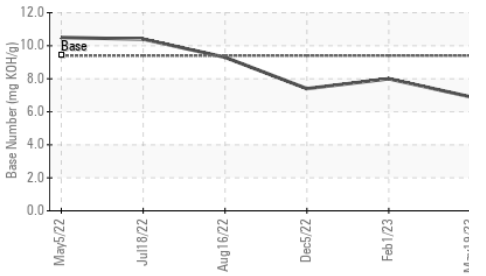
FT-IR (Direct Trend)



FT-IR (Direct Trend)



Base Number

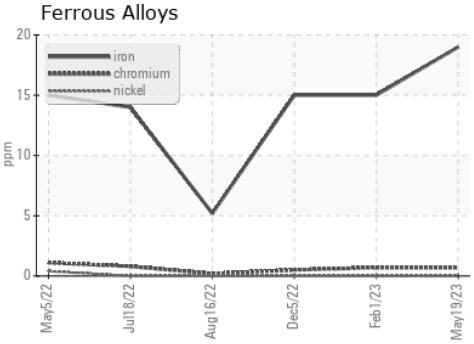


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

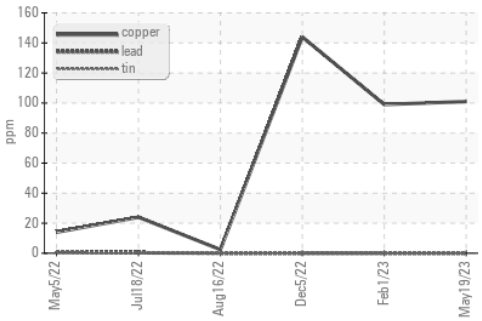
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14	**11.7**	11.9	11.3

GRAPHS

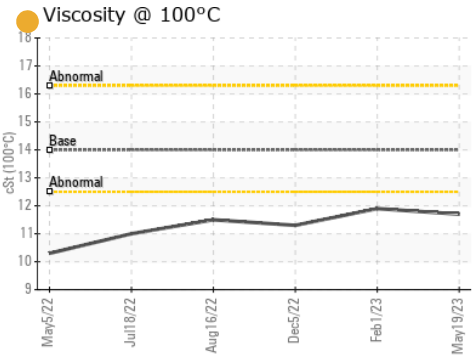
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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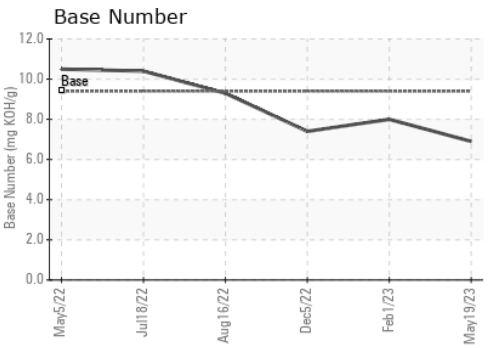

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0799056
Lab Number : 05855914
Unique Number : 10485269
Test Package : CONST (Additional Tests: TBN)

Received : 24 May 2023
Tested : 25 May 2023
Diagnosed : 25 May 2023 - Angela Borella

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: BILL ORCUTT
william.orcutt@wildcat.net
T: (719)499-6303
F: x:

Report Id: SHEWIC [WUSCAR] 05855914 (Generated: 05/10/2024 14:42:52) Rev: 1

Submitted By: BRANDEN JAQUIAS