

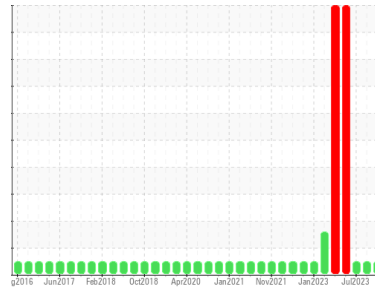


OIL ANALYSIS REPORT



Area
OKLAHOMA/102/EG - EXCAVATOR
 Machine Id
20.512L [OKLAHOMA^102^EG - EXCAVATOR]
 Component
Diesel Engine
 Fluid
MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

Sample Rating Trend



NORMAL



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 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			WC0908884	WC0887025	WC0821806
Sample Date	Client Info			31 May 2024	05 Mar 2024	06 Jul 2023
Machine Age	hrs	Client Info		9043	8740	8124
Oil Age	hrs	Client Info		303	311	309
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	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	12	18	35
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	4	8	12
Lead	ppm	ASTM D5185m	>40	3	2	2
Copper	ppm	ASTM D5185m	>330	1	1	2
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	32	37	28
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	44	42	42
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m	0	474	496	550
Calcium	ppm	ASTM D5185m		1598	1683	1838
Phosphorus	ppm	ASTM D5185m		783	751	818
Zinc	ppm	ASTM D5185m		886	918	995
Sulfur	ppm	ASTM D5185m		2612	2608	3383

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	5	6	7
Sodium	ppm	ASTM D5185m		<1	<1	2
Potassium	ppm	ASTM D5185m	>20	1	2	<1

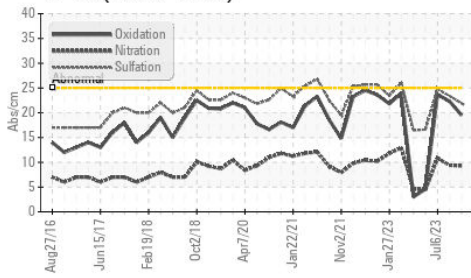
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.8	0.8	1
Nitration	Abs/cm	*ASTM D7624	>20	9.3	9.4	10.8
Sulfation	Abs.1mm	*ASTM D7415	>30	21.9	23.4	24.8

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs.1mm	*ASTM D7414	>25	19.5	22.3	23.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.4	8.8	10.3	10.4

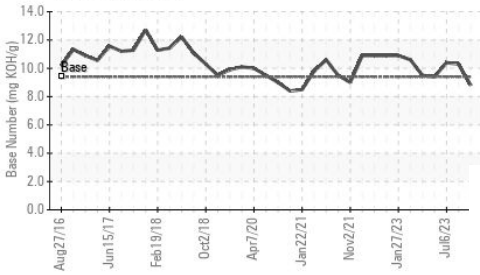


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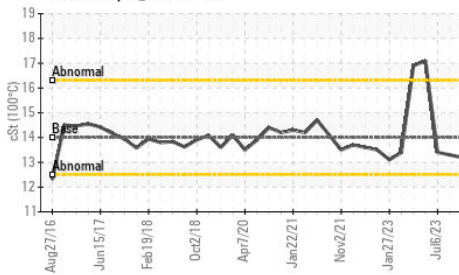
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

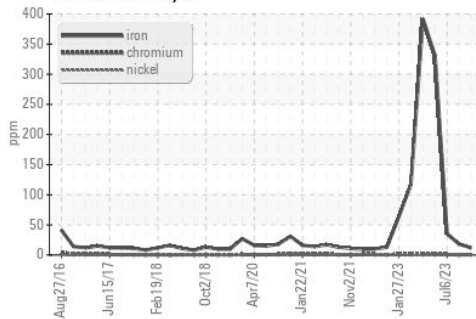


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

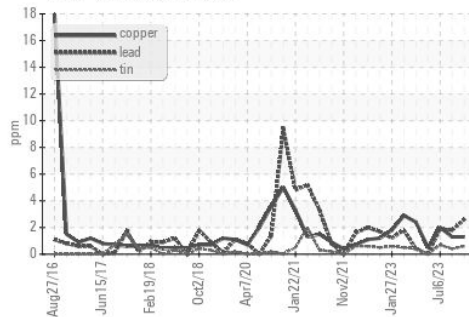
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14	13.2	13.3

GRAPHS

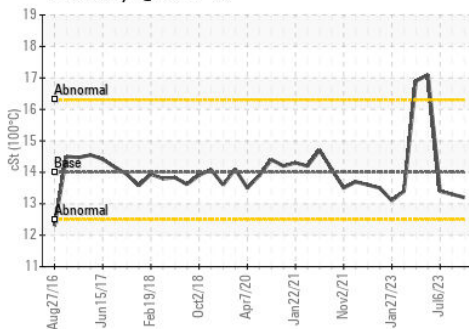
Ferrous Alloys



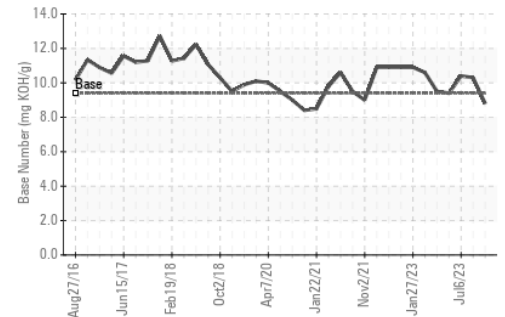
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WC0908884
 Lab Number : 06207587
 Unique Number : 11075048
 Test Package : CONST (Additional Tests: TBN)

Received : 12 Jun 2024
 Tested : 13 Jun 2024
 Diagnosed : 13 Jun 2024 - Wes Davis

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:

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)