



WEAR **NORMAL**

CONTAMINATION **NORMAL**

FLUID CONDITION **NORMAL**

OIL ANALYSIS REPORT



Area
K5 CONSTRUCTION CORPORATION - HODGKINS IL
Machine Id
2051
Component
Diesel Engine
Fluid
LEAHY WOLF PREMIUM 15W40 (4 hrs)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LW0009211	LW0007689	LW0006510
Sample Date		Client Info		21 May 2024	23 Aug 2023	27 Mar 2023
Machine Age	hrs	Client Info		2388	2124	1710
Oil Age	hrs	Client Info		264	414	258
Filter Age	hrs	Client Info		264	414	258
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	28	18	16
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m	>2	2	<1	<1
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>25	4	2	3
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	2	1	1
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

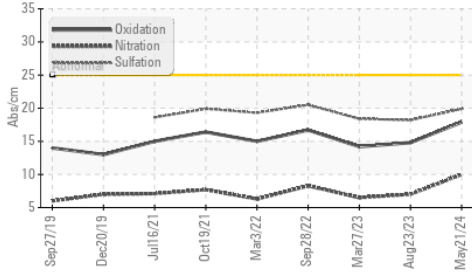
Silicon	ppm	ASTM D5185m	>25	6	4	5
Potassium	ppm	ASTM D5185m	>20	<1	0	2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	10.0	7.0	6.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.9	18.2	18.4
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

FLUID CONDITION

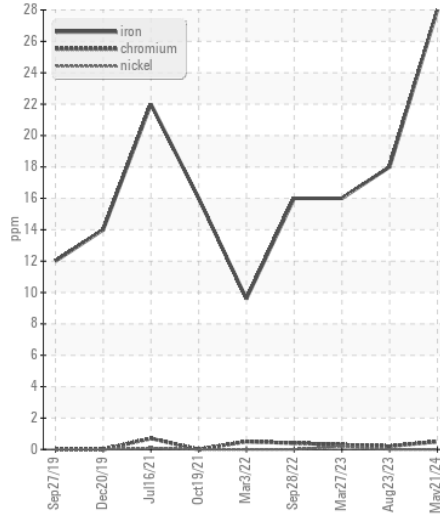
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		1	2	0
Boron	ppm	ASTM D5185m		2	0	4
Barium	ppm	ASTM D5185m		0	0	<1
Molybdenum	ppm	ASTM D5185m		63	64	60
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		1109	1055	894
Calcium	ppm	ASTM D5185m		1257	1172	1171
Phosphorus	ppm	ASTM D5185m		1147	1084	1038
Zinc	ppm	ASTM D5185m		1467	1312	1236
Sulfur	ppm	ASTM D5185m		3806	3711	2921
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.9	14.8	14.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.4	8.6	9.2
Visc @ 100°C	cSt	ASTM D445	15.6	13.4	13.8	14.0

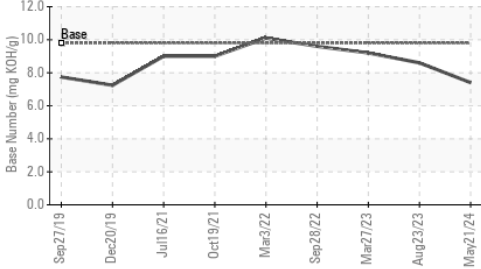
FT-IR (Direct Trend)



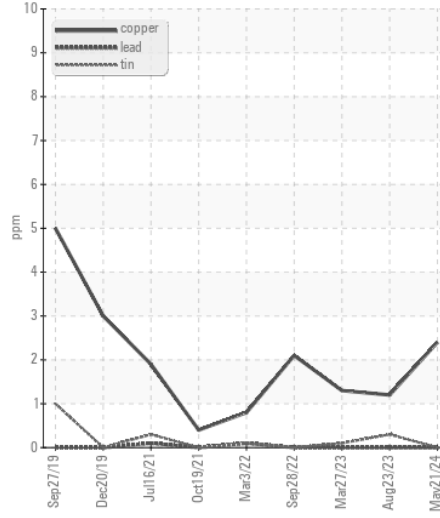
Ferrous Alloys



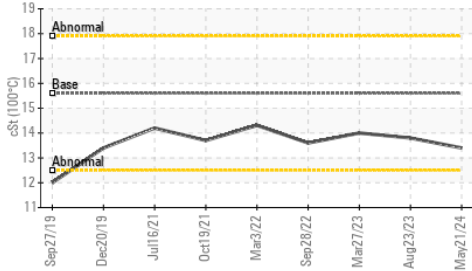
Base Number



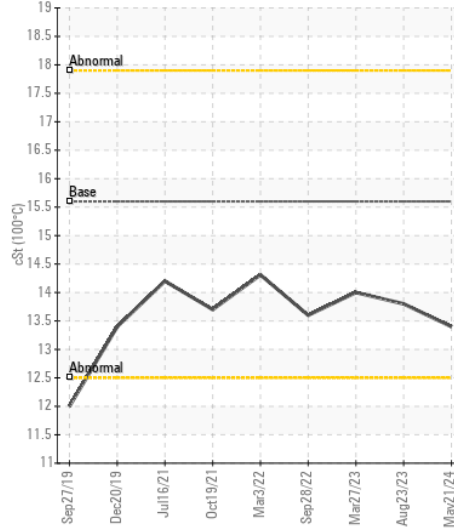
Non-ferrous Metals



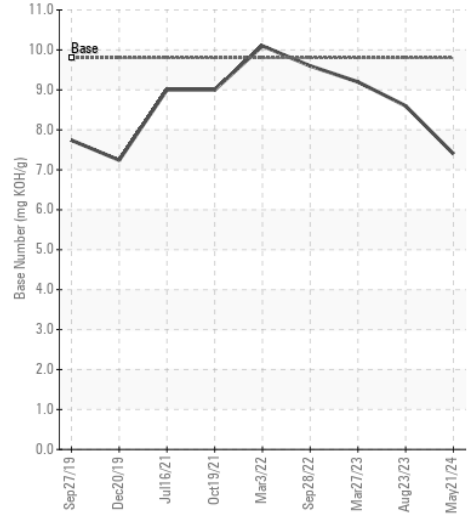
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LW0009211
Lab Number : 06193192
Unique Number : 11049944
Test Package : FLEET

Received : 28 May 2024
Tested : 30 May 2024
Diagnosed : 30 May 2024 - Wes Davis

K5 CONSTRUCTION CORPORATION
 6301 S EAST AVENUE
 HODGKINS, IL
 US 60525
 Contact: Dave Gorski
 daveg@k-five.net
 T: (630)257-5600
 F:

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)