



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
K5 CONSTRUCTION CORPORATION - HODGKINS IL

Machine Id
4367
Component
Diesel Engine
Fluid
LEAHY WOLF PREMIUM 15W40 (5 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LW0009469	PCA0122079	LW0008342
Sample Date		Client Info		27 Jun 2024	28 Mar 2024	11 Dec 2023
Machine Age	hrs	Client Info		1867	1665	1463
Oil Age	hrs	Client Info		202	202	212
Filter Age	hrs	Client Info		202	202	212
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ATTENTION	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	26	31	19
Chromium	ppm	ASTM D5185m	>20	1	1	1
Nickel	ppm	ASTM D5185m	>2	<1	0	<1
Titanium	ppm	ASTM D5185m	>2	96	95	94
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>25	3	3	2
Lead	ppm	ASTM D5185m	>40	<1	0	<1
Copper	ppm	ASTM D5185m	>330	2	1	1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		1	<1	1
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.

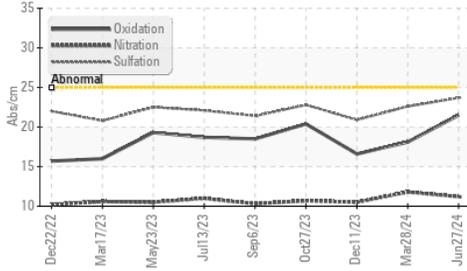
Silicon	ppm	ASTM D5185m	>25	6	8	9
Potassium	ppm	ASTM D5185m	>20	4	2	5
Fuel		WC Method	>5	<1.0	▲ 3.4	▲ 7.7
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	11.2	11.8	10.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.7	22.6	20.9
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

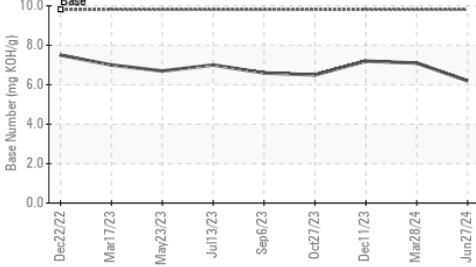
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	3	0
Boron	ppm	ASTM D5185m		57	62	81
Barium	ppm	ASTM D5185m		<1	0	12
Molybdenum	ppm	ASTM D5185m		3	0	2
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m		724	765	674
Calcium	ppm	ASTM D5185m		1331	1354	1270
Phosphorus	ppm	ASTM D5185m		986	1053	933
Zinc	ppm	ASTM D5185m		1176	1206	1122
Sulfur	ppm	ASTM D5185m		3277	4049	3647
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.5	18.1	16.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.2	7.1	7.2
Visc @ 100°C	cSt	ASTM D445	15.6	12.5	12.6	▲ 12.1

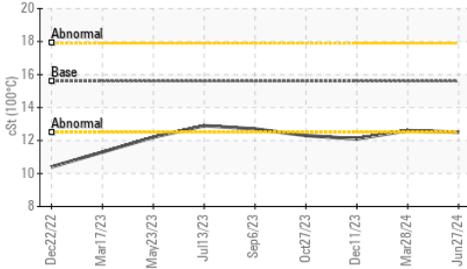
FT-IR (Direct Trend)



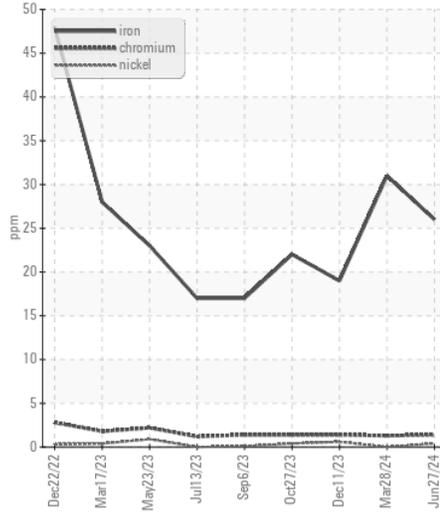
Base Number



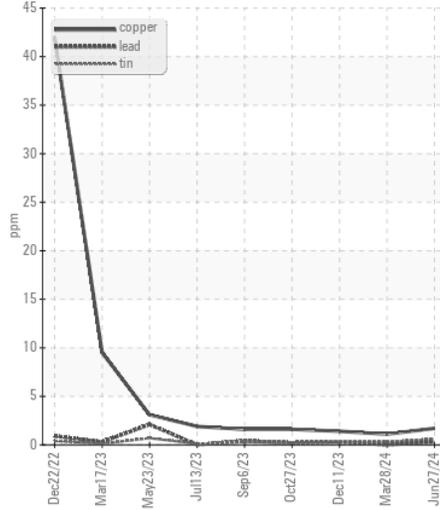
Viscosity @ 100°C



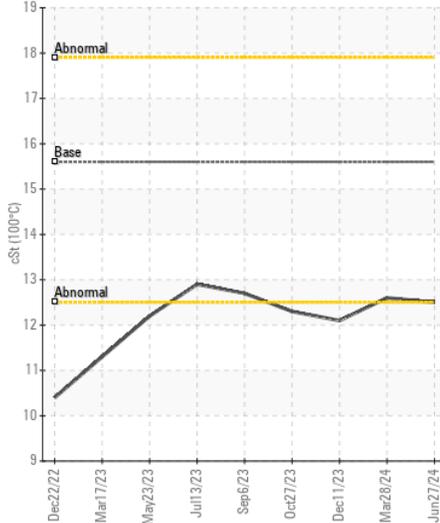
Ferrous Alloys



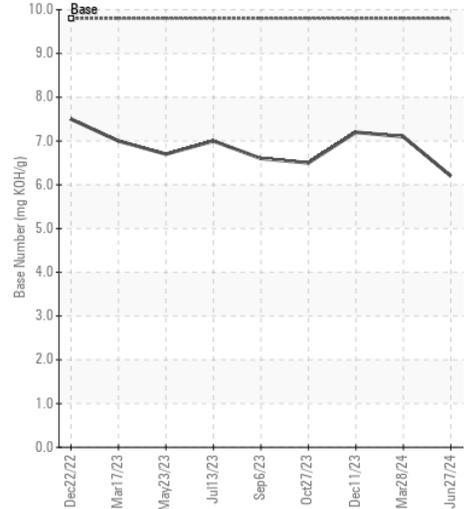
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LW0009469
Lab Number : 06225790
Unique Number : 11109283
Test Package : FLEET
Received : 02 Jul 2024
Tested : 03 Jul 2024
Diagnosed : 03 Jul 2024 - Jonathan Hester

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)