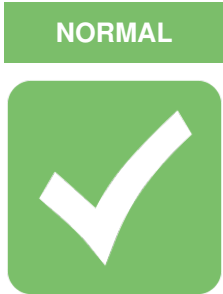
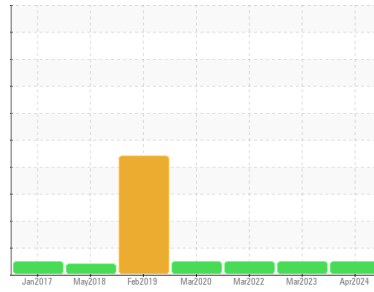


OIL ANALYSIS REPORT

Area
K5 CONSTRUCTION CORPORATION - HODGKINS IL
 Machine Id
1670
 Component
Diesel Engine
 Fluid
LEAHY WOLF PREMIUM 15W40 (6 hrs)

Sample Rating Trend



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		PCA0121999	LW0006367	LW0004479
Sample Date	Client Info		19 Apr 2024	01 Mar 2023	23 Mar 2022
Machine Age	hrs	Client Info	2533	2533	2390
Oil Age	hrs	Client Info	2533	143	90
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	18	11	10
Chromium	ppm	ASTM D5185m >20	<1	<1	<1
Nickel	ppm	ASTM D5185m >4	0	<1	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m >3	0	0	<1
Aluminum	ppm	ASTM D5185m >20	1	2	2
Lead	ppm	ASTM D5185m >40	0	<1	<1
Copper	ppm	ASTM D5185m >330	1	1	1
Tin	ppm	ASTM D5185m >15	0	0	<1
Antimony	ppm	ASTM D5185m	---	---	---
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	5	5
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	63	58	60
Manganese	ppm	ASTM D5185m	0	<1	<1
Magnesium	ppm	ASTM D5185m	1103	887	995
Calcium	ppm	ASTM D5185m	1302	1136	1188
Phosphorus	ppm	ASTM D5185m	1118	1015	1099
Zinc	ppm	ASTM D5185m	1422	1227	1344
Sulfur	ppm	ASTM D5185m	3891	2846	2761
Lithium	ppm	ASTM D5185m	---	---	---

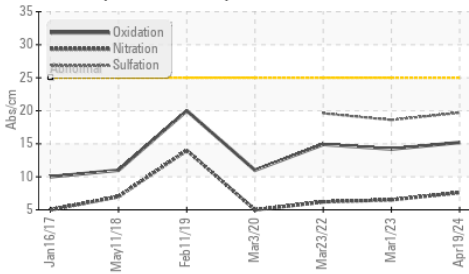
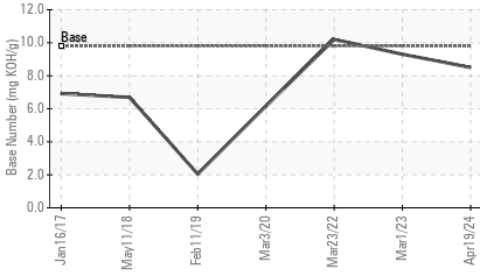
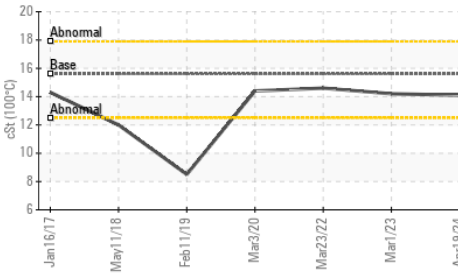
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	4	4	3
Sodium	ppm	ASTM D5185m	1	1	2
Potassium	ppm	ASTM D5185m >20	0	1	2

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.6	0.4	0.3
Nitration	Abs/cm	*ASTM D7624 >20	7.6	6.5	6.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.7	18.6	19.6

OIL ANALYSIS REPORT

FT-IR (Direct Trend)

Base Number

Viscosity @ 100°C

FLUID DEGRADATION

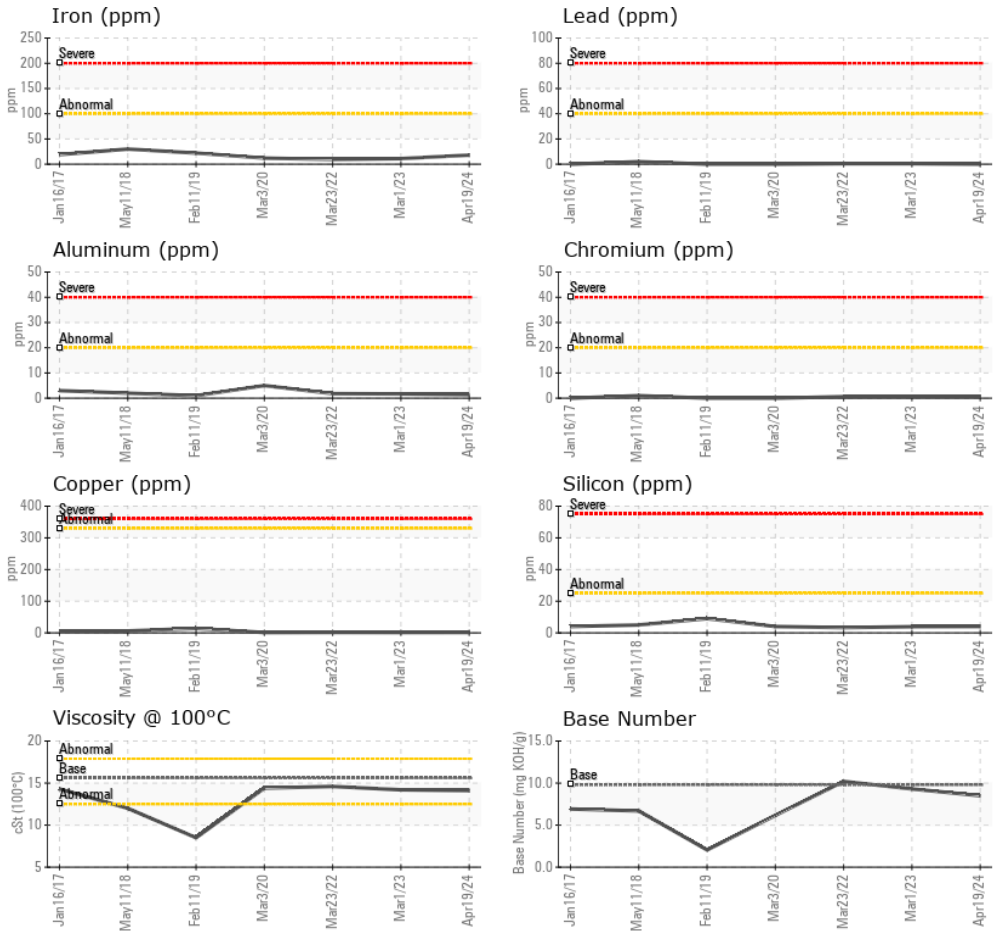
method	limit/base	current	history1	history2	
Oxidation	Abs./1mm *ASTM D7414	>25	15.2	14.2	14.9
Base Number (BN)	mg KOH/g ASTM D2896	9.8	8.5	9.3	10.2

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	NEG
Free Water	scalar *Visual		NEG	NEG	NEG

FLUID PROPERTIES

method	limit/base	current	history1	history2	
Visc @ 100°C	cSt ASTM D445	15.6	14.1	14.2	14.6

GRAPHS


Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : PCA0121999

Lab Number : 06160071

Unique Number : 10995494

Test Package : MOB 1 (Additional Tests: TBN)

Received : 25 Apr 2024

Tested : 25 Apr 2024

Diagnosed : 25 Apr 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)