



WEAR

ABNORMAL

CONTAMINATION

NORMAL

FLUID CONDITION

NORMAL

OIL ANALYSIS REPORT



Area
K5 CONSTRUCTION CORPORATION - HODGKINS IL
Machine Id
1196
Component
Diesel Engine
Fluid
LEAHY WOLF PREMIUM 15W40 (9 hrs)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LW0008539	LW0007481	LW0007152
Sample Date		Client Info		05 Feb 2024	01 Aug 2023	14 Jun 2023
Machine Age	hrs	Client Info		6880	6578	5945
Oil Age	hrs	Client Info		302	633	297
Filter Age	hrs	Client Info		302	633	297
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

Cylinder, crank, or cam shaft wear is indicated. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	▲ 72	60	53
Chromium	ppm	ASTM D5185m	>11	1	1	1
Nickel	ppm	ASTM D5185m	>5	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	1	<1	1
Lead	ppm	ASTM D5185m	>26	0	<1	0
Copper	ppm	ASTM D5185m	>26	<1	<1	0
Tin	ppm	ASTM D5185m	>4	0	0	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

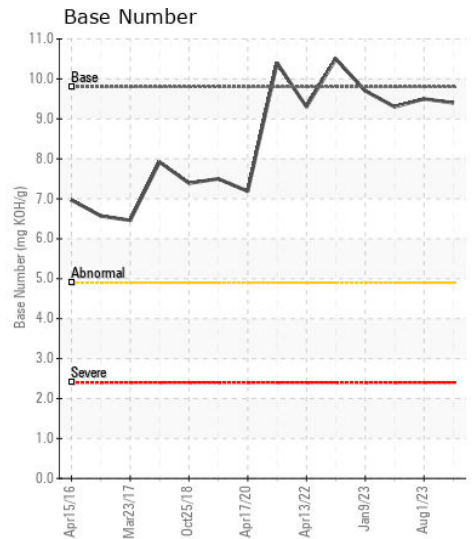
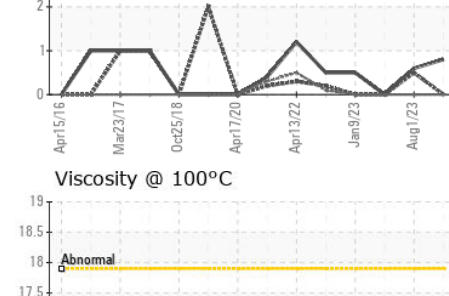
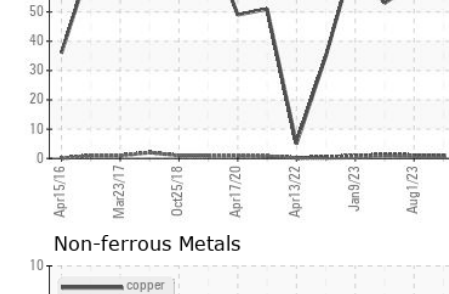
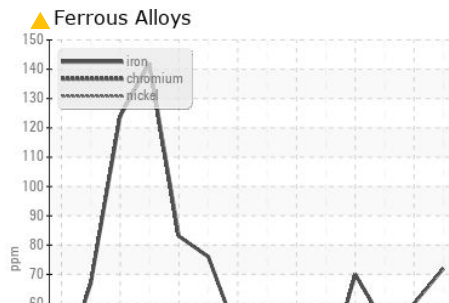
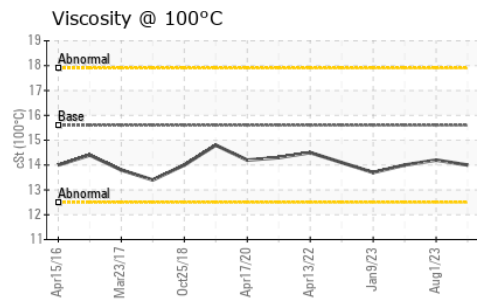
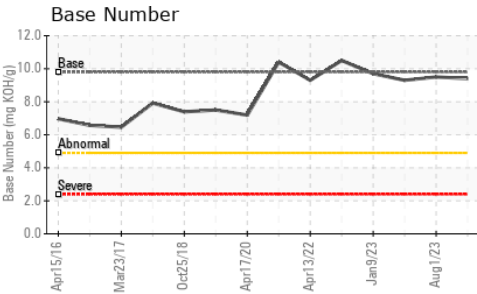
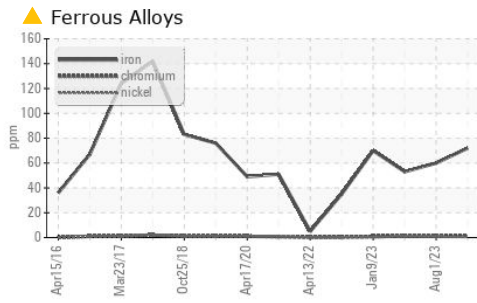
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	4	3	4
Potassium	ppm	ASTM D5185m	>20	5	4	5
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	6.5	7.0	7.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.3	18.4	19.1
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	>0.21	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>31	8	11	24
Boron	ppm	ASTM D5185m		1	4	6
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		65	63	66
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		934	976	1036
Calcium	ppm	ASTM D5185m		1097	1136	1211
Phosphorus	ppm	ASTM D5185m		997	1037	1149
Zinc	ppm	ASTM D5185m		1231	1313	1409
Sulfur	ppm	ASTM D5185m		3108	3729	4114
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.0	14.4	15.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.4	9.5	9.3
Visc @ 100°C	cSt	ASTM D445	15.6	14.0	14.2	14.0



Certificate L2367

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

Sample No. : LW0008539

Lab Number : 06087066

Unique Number : 10874511

Test Package : FLEET

Received : 13 Feb 2024

Tested : 14 Feb 2024

Diagnosed : 14 Feb 2024 - Don Baldrige

K5 CONSTRUCTION CORPORATION

6301 S EAST AVENUE

HODGKINS, IL

US 60525

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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)