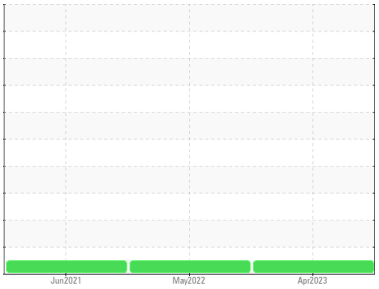
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Area
04
Machine Id
[04] BASELINE - HP 5W30 USBP REF
Component
New (Unused) Oil
Fluid
HIGH PERFORMANCE LUBRICANTS HDMO 5W30 (1 QTS)

DIAGNOSIS

Recommendation
This is a baseline read-out on the submitted sample. (Customer Sample Comment: Batch#17H2404)

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**HPL0003342**	HPL0000471	HPL008206
Sample Date		Client Info		**11 Apr 2023**	26 May 2022	29 Jun 2021
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**NORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m		**2**	3	2
Chromium	ppm	ASTM D5185m		**<1**	<1	<1
Nickel	ppm	ASTM D5185m		**0**	<1	<1
Titanium	ppm	ASTM D5185m		**0**	<1	<1
Silver	ppm	ASTM D5185m		**0**	<1	3
Aluminum	ppm	ASTM D5185m		**<1**	2	1
Lead	ppm	ASTM D5185m		**0**	1	1
Copper	ppm	ASTM D5185m		**0**	<1	<1
Tin	ppm	ASTM D5185m		**0**	<1	<1
Antimony	ppm	ASTM D5185m		**---**	---	1
Vanadium	ppm	ASTM D5185m		**<1**	<1	<1
Cadmium	ppm	ASTM D5185m		**0**	<1	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	200	**184**	206	228
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m	85	**68**	72	71
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	525	**353**	415	416
Calcium	ppm	ASTM D5185m	4300	**3253**	3581	3492
Phosphorus	ppm	ASTM D5185m	1000	**714**	797	786
Zinc	ppm	ASTM D5185m	1100	**838**	945	953
Sulfur	ppm	ASTM D5185m	20200	**15109**	17391	15465

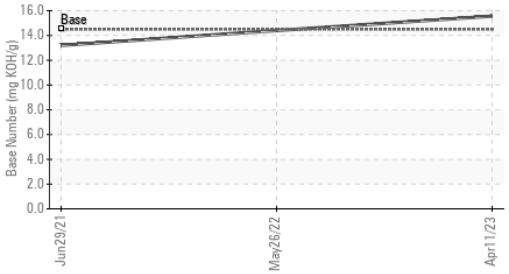
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m		**5**	5	4
Sodium	ppm	ASTM D5185m		**2**	<1	<1
Potassium	ppm	ASTM D5185m	>20	**1**	2	1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0**	---	---
Nitration	Abs/cm	*ASTM D7624		**5.1**	---	---
Sulfation	Abs/.1mm	*ASTM D7415		**23.5**	---	---

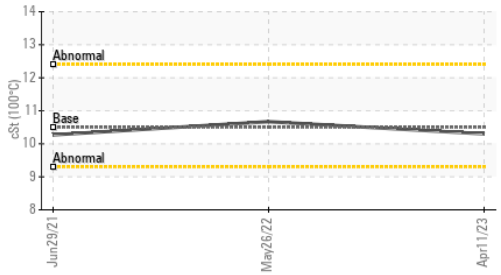
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414		**13.6**	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		**---**	1.71	0.767
Base Number (BN)	mg KOH/g	ASTM D2896	14.5	**15.56**	14.4	13.2

OIL ANALYSIS REPORT

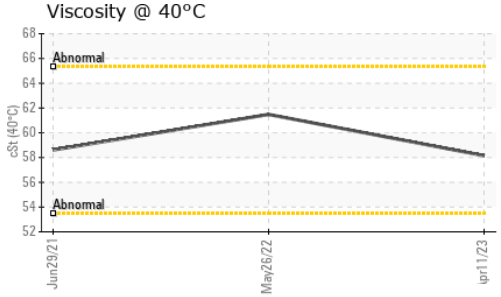
Base Number



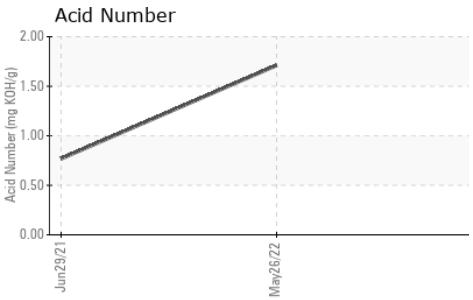
Viscosity @ 100°C



Viscosity @ 40°C

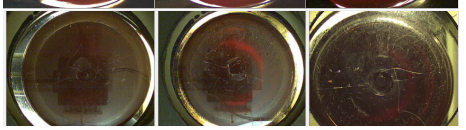


Acid Number



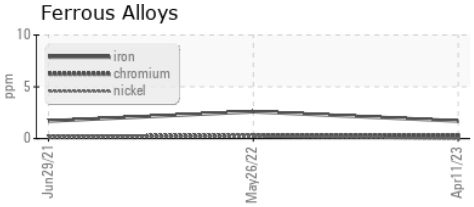
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**58.15**	61.48	58.61
Visc @ 100°C	cSt	ASTM D445	10.5	**10.3**	10.67	10.27
Viscosity Index (VI)	Scale	ASTM D2270		**167**	165	164

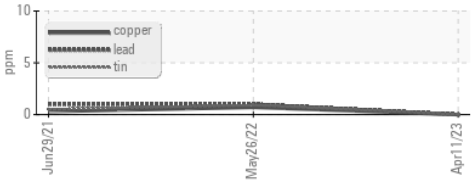
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

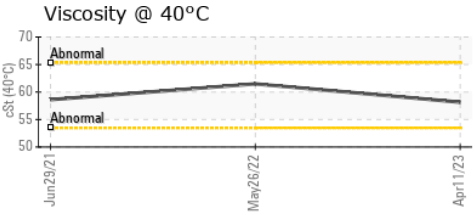
Ferrous Alloys



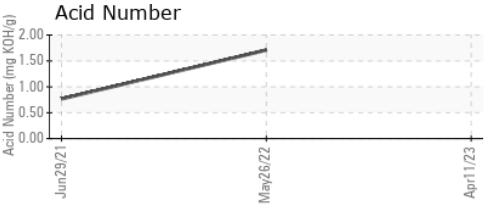
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : HPL0003342 **Recieved** : 14 Apr 2023
Lab Number : 05821221 **Diagnosed** : 19 Apr 2023
Unique Number : 10429304 **Diagnostician** : Jonathan Hester
Test Package : MOB 2 (Additional Tests: FT-IR, ICP-NewOil, KV100, PrtCount, TBN, VI)

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)

KENSING
2525 S KENSINGTON RD
KANKAKEE, IL
US 60901
Contact: TIM HUBERT
timothy.hubert@kensingsolutions.com
T: (815)939-8918
F: x: