



OIL ANALYSIS REPORT

Sample Rating Trend

WATER



Area
63
 Machine Id
[63] A63 SPQ 1 Fire Pump
 Component
Diesel Engine
 Fluid
HIGH PERFORMANCE LUBRICANTS HDMO 5W30 (8 GAL)



DIAGNOSIS

- Recommendation**
Resample at the next service interval to monitor.
- Wear**
All component wear rates are normal.
- Contamination**
There is a trace of moisture present 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		HPL006838	---	---
Sample Date	Client Info		29 Aug 2017	---	---
Machine Age	hrs	Client Info	0	---	---
Oil Age	hrs	Client Info	12	---	---
Oil Changed	Client Info		N/A	---	---
Sample Status			MARGINAL	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	---	---
Glycol	WC Method		NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	26	---	---
Chromium	ppm	ASTM D5185m >20	1	---	---
Nickel	ppm	ASTM D5185m >2	<1	---	---
Titanium	ppm	ASTM D5185m >2	2	---	---
Silver	ppm	ASTM D5185m >2	0	---	---
Aluminum	ppm	ASTM D5185m >20	9	---	---
Lead	ppm	ASTM D5185m >40	7	---	---
Copper	ppm	ASTM D5185m >330	192	---	---
Tin	ppm	ASTM D5185m >15	2	---	---
Antimony	ppm	ASTM D5185m	0	---	---
Vanadium	ppm	ASTM D5185m	0	---	---
Cadmium	ppm	ASTM D5185m	<1	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 200	145	---	---
Barium	ppm	ASTM D5185m	<1	---	---
Molybdenum	ppm	ASTM D5185m 85	68	---	---
Manganese	ppm	ASTM D5185m	8	---	---
Magnesium	ppm	ASTM D5185m 525	383	---	---
Calcium	ppm	ASTM D5185m 4300	3235	---	---
Phosphorus	ppm	ASTM D5185m 1000	753	---	---
Zinc	ppm	ASTM D5185m 1100	827	---	---
Sulfur	ppm	ASTM D5185m 20200	8026	---	---

CONTAMINANTS

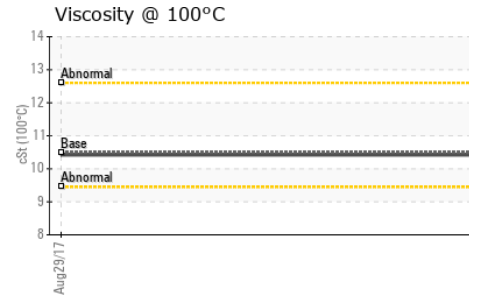
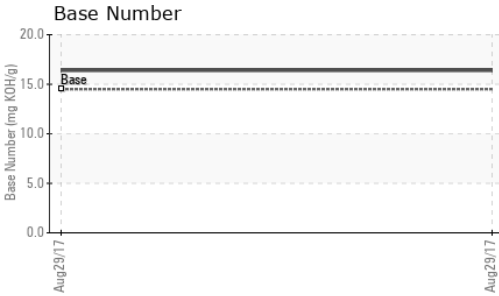
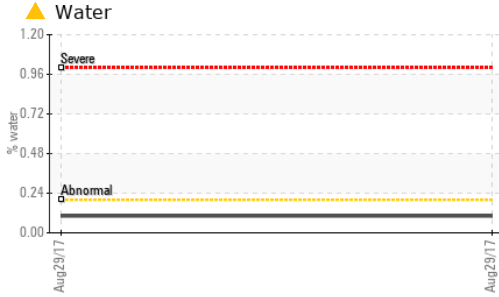
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	10	---	---
Sodium	ppm	ASTM D5185m	16	---	---
Potassium	ppm	ASTM D5185m >20	3	---	---
Water	%	ASTM D6304 >0.2	▲ 0.102	---	---
ppm Water	ppm	ASTM D6304 >2000	▲ 1020	---	---

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0	---	---
Nitration	Abs/cm	*ASTM D7624	6.	---	---
Sulfation	Abs/.1mm	*ASTM D7415	23.	---	---



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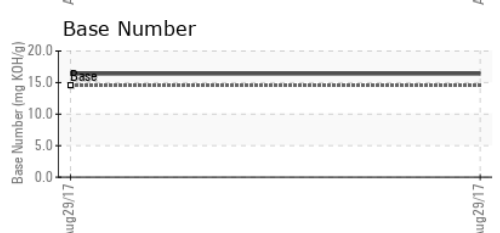
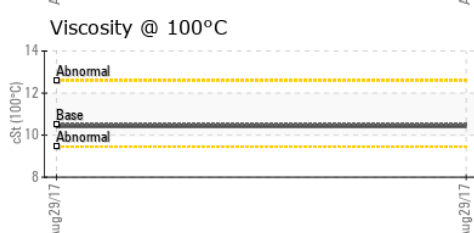
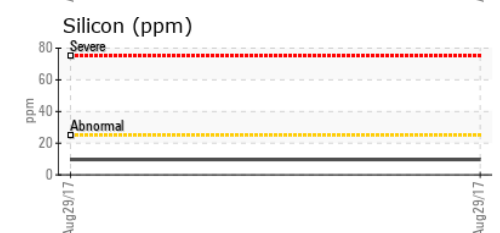
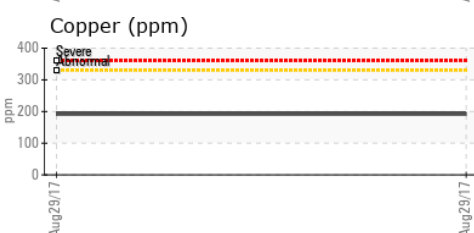
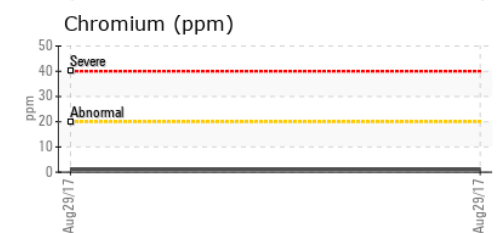
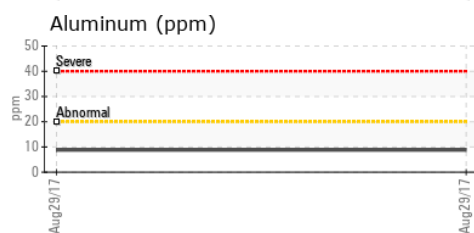
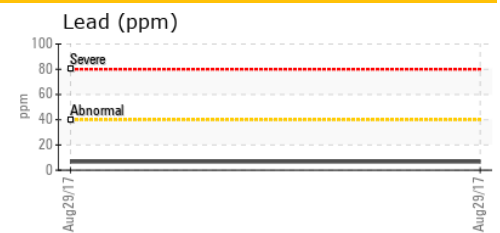
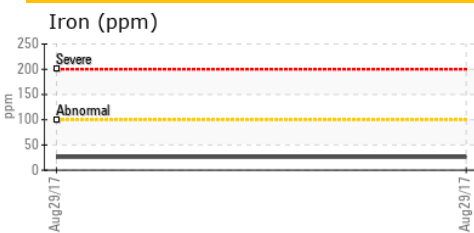


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	*ASTM D7414		15.	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	14.5	16.4	---	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Precipitate	scalar	*Visual	NONE	NONE	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---
Free Water	scalar	*Visual		NEG	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	10.5	10.42	---	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : HPL006838 **Received** : 18 Sep 2017
Lab Number : **04305988** **Diagnosed** : 19 Sep 2017
Unique Number : 7934547 **Diagnostician** : Don Baldrige
Test Package : MOB 2 (Additional Tests: KF)

KENSING
 2525 S KENSINGTON RD
 KANKAKEE, IL
 US 60901

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Contact: TIM HUBERT

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

T: (815)939-8918

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: x: