



PERFORMANCE  
UNDER  
PRESSURE

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id  
**CATERPILLAR EMD CAT 3412**

Component  
**Diesel Engine**

Fluid  
**{not provided} (20 GAL)**

**RECOMMENDATION**

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

**WEAR**

All component wear rates are normal.

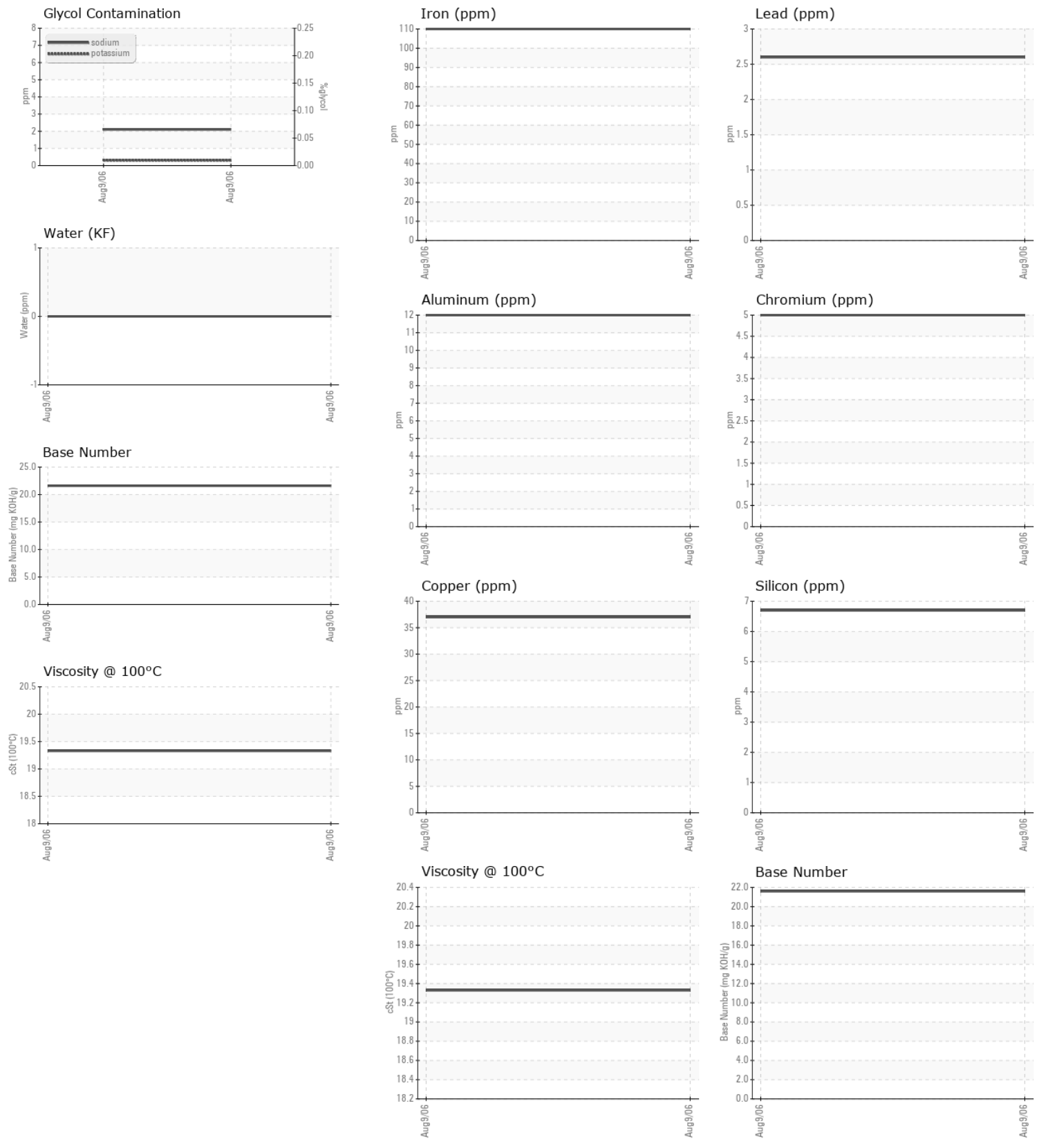
**CONTAMINATION**

There is a light concentration of water present in the oil. No evidence of antifreeze present in the oil.

**FLUID CONDITION**

The condition of oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>RP034742</b>	---	---
Sample Date		Client Info		<b>09 Aug 2006</b>	---	---
Machine Age	hrs	Client Info		<b>1197</b>	---	---
Oil Age	hrs	Client Info		<b>740</b>	---	---
Filter Age	hrs	Client Info		<b>740</b>	---	---
Oil Changed		Client Info		<b>Not Chngd</b>	---	---
Filter Changed		Client Info		<b>Changed</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---
Iron	ppm	ASTM D5185m		<b>110</b>	---	---
Chromium	ppm	ASTM D5185m		<b>5</b>	---	---
Nickel	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185m		<b>0</b>	---	---
Silver	ppm	ASTM D5185m		<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m		<b>12</b>	---	---
Lead	ppm	ASTM D5185m		<b>3</b>	---	---
Copper	ppm	ASTM D5185m		<b>37</b>	---	---
Tin	ppm	ASTM D5185m		<b>2</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Silicon	ppm	ASTM D5185m		<b>7</b>	---	---
Potassium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Fuel		WC Method		<b>&lt;1.0</b>	---	---
Water	%	ASTM D6304		<b>▲ 0.270</b>	---	---
Glycol	%	*ASTM D2982		<b>NEG</b>	---	---
Soot %	%	*ASTM D7844		<b>1.1</b>	---	---
Nitration	Abs/cm	*ASTM D7624		<b>0.15</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415		<b>0.58</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual		<b>0.2%</b>	---	---
Sodium	ppm	ASTM D5185m		<b>2</b>	---	---
Boron	ppm	ASTM D5185m		<b>3</b>	---	---
Barium	ppm	ASTM D5185m		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>113</b>	---	---
Manganese	ppm	ASTM D5185m		<b>2</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>2447</b>	---	---
Calcium	ppm	ASTM D5185m		<b>5626</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>843</b>	---	---
Zinc	ppm	ASTM D5185m		<b>1249</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414		<b>0.47</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>21.6</b>	---	---
Visc @ 100°C	cSt	ASTM D445		<b>19.33</b>	---	---



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RP034742  
**Lab Number** : 01827828  
**Unique Number** : 3885658  
**Test Package** : MOB 2 ( Additional Tests: Glycol, KF )  
**Received** : 05 Sep 2006  
**Tested** : 07 Sep 2006  
**Diagnosed** : 07 Sep 2006 - Doug Bogart

**OILMAX S.A.S.**  
 AV 6 DICIEMBRE Y GASPAR CANTERO  
 QUITO-ECUADOR,

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

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\* - 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)

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