



PERFORMANCE
UNDER
PRESSURE

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CATERPILLAR EMD 3406
Component
Diesel Engine
Fluid
ROYAL PURPLE MOTOR OIL 15W40 (10 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RP033930	RP033998	RP034731
Sample Date		Client Info		24 Jan 2007	23 Dec 2006	09 Nov 2006
Machine Age	hrs	Client Info		9339	8619	7688
Oil Age	hrs	Client Info		1651	931	2438
Filter Age	hrs	Client Info		720	931	800
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m		76	62	92
Chromium	ppm	ASTM D5185m		3	3	4
Nickel	ppm	ASTM D5185m		1	1	2
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m		8	8	10
Lead	ppm	ASTM D5185m		15	12	16
Copper	ppm	ASTM D5185m		22	15	32
Tin	ppm	ASTM D5185m		1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

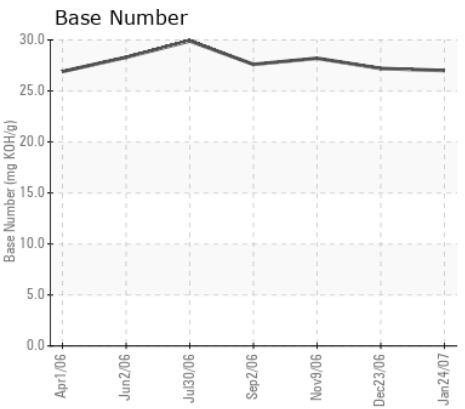
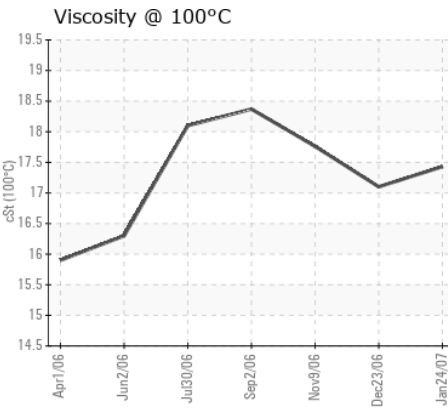
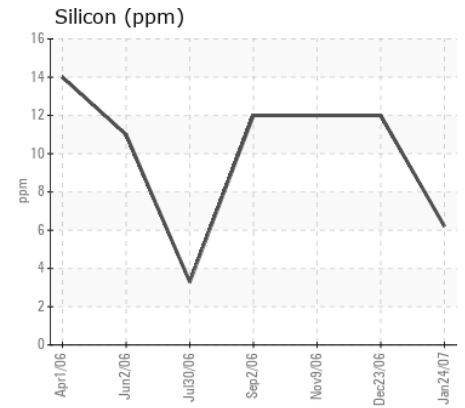
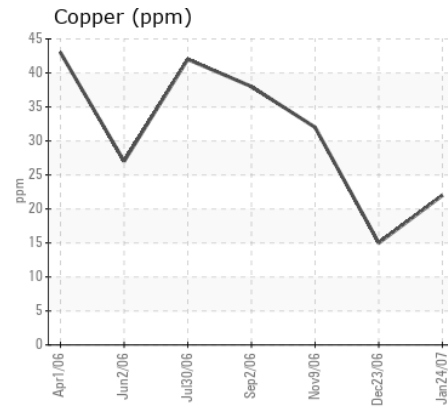
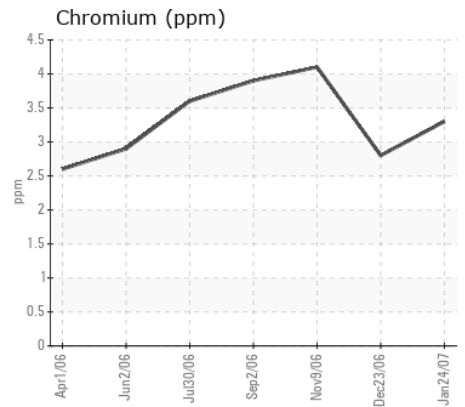
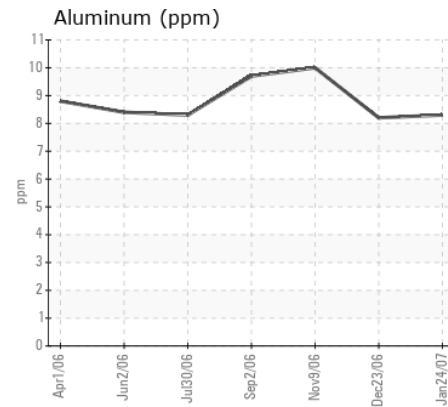
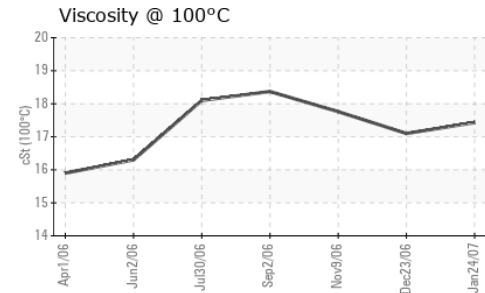
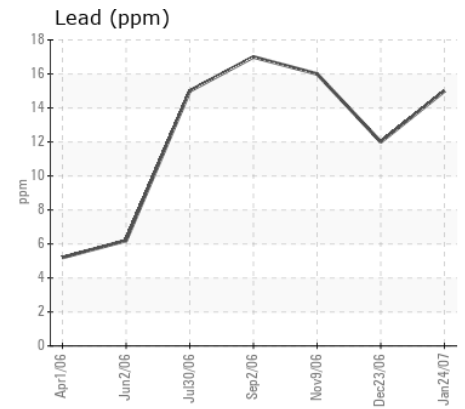
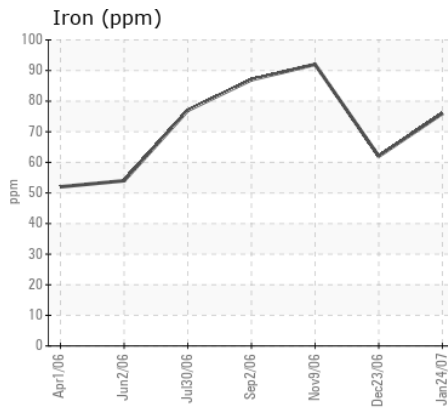
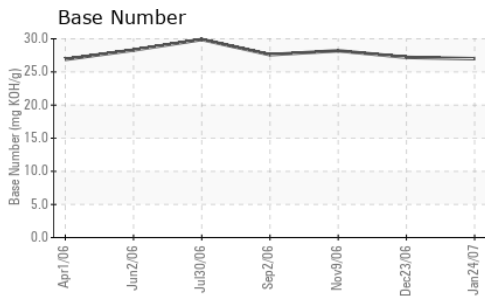
There is no indication of any contamination in the component.

Silicon	ppm	ASTM D5185m		6	12	12
Potassium	ppm	ASTM D5185m		1	0	0
Fuel		WC Method		<1.0	<1.0	<1.0
Water		WC Method		NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.3	0.6	0.7
Nitration	Abs/cm	*ASTM D7624		9.	17.	0.25
Sulfation	Abs/.1mm	*ASTM D7415		29.	50.	0.50
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

FLUID CONDITION

The condition of oil is suitable for further service.

Sodium	ppm	ASTM D5185m		7	9	13
Boron	ppm	ASTM D5185m		5	2	<1
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		142	154	164
Manganese	ppm	ASTM D5185m		3	2	2
Magnesium	ppm	ASTM D5185m		3056	3360	3845
Calcium	ppm	ASTM D5185m		6774	6698	7726
Phosphorus	ppm	ASTM D5185m		1034	1126	1185
Zinc	ppm	ASTM D5185m		1539	1614	1847
Oxidation	Abs/.1mm	*ASTM D7414		16.	32.	0.51
Base Number (BN)	mg KOH/g	ASTM D2896		27.0	27.2	28.2
Visc @ 100°C	cSt	ASTM D445		17.43	17.1	17.76



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP033930
Lab Number : 01908011
Unique Number : 4021685
Test Package : MOB 2

Received : 12 Feb 2007
Tested : 13 Feb 2007
Diagnosed :

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

Contact: DANNY BARREIRO
 oilmax.ec@gmail.com
 T: (593)996-451694

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)

F: x: