



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		RP034731	RP034729	RP034558
Sample Date		Client Info		09 Nov 2006	02 Sep 2006	30 Jul 2006
Machine Age	hrs	Client Info		7688	6086	5250
Oil Age	hrs	Client Info		2438	836	2148
Filter Age	hrs	Client Info		800	836	700
Oil Changed		Client Info		Changed	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		92	87	77
Chromium	ppm	ASTM D5185m		4	4	4
Nickel	ppm	ASTM D5185m		2	1	2
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m		10	10	8
Lead	ppm	ASTM D5185m		16	17	15
Copper	ppm	ASTM D5185m		32	38	42
Tin	ppm	ASTM D5185m		0	0	2
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

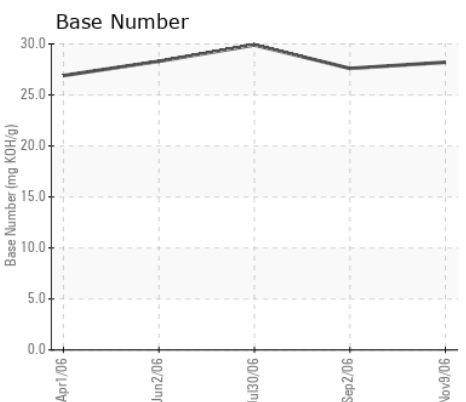
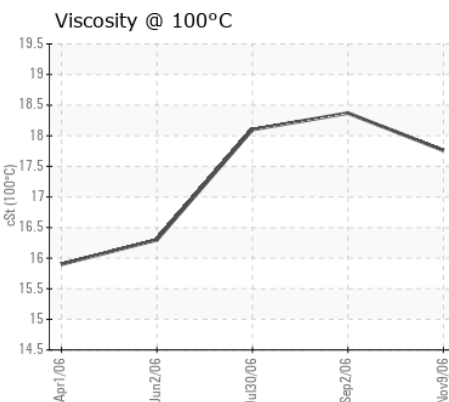
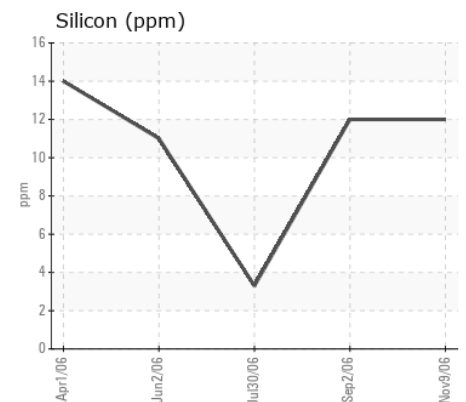
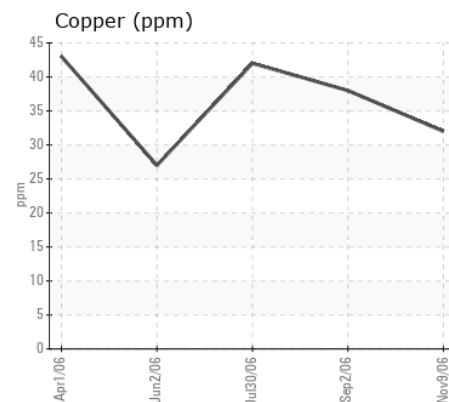
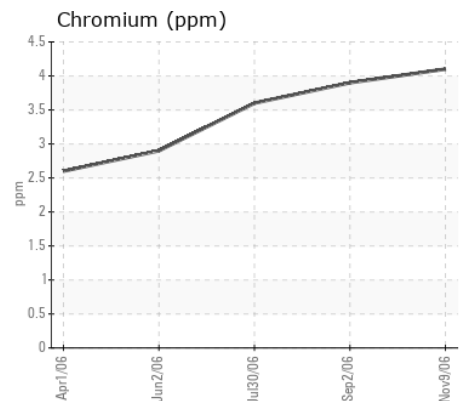
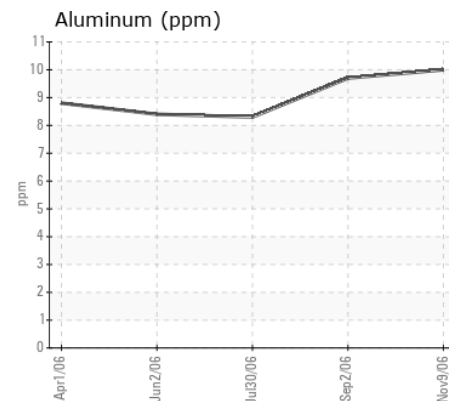
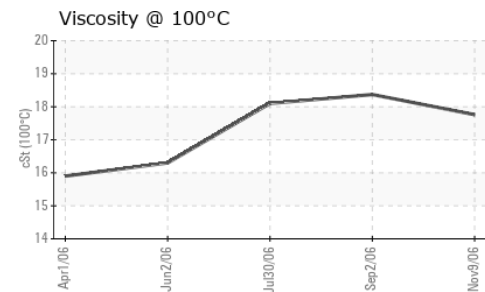
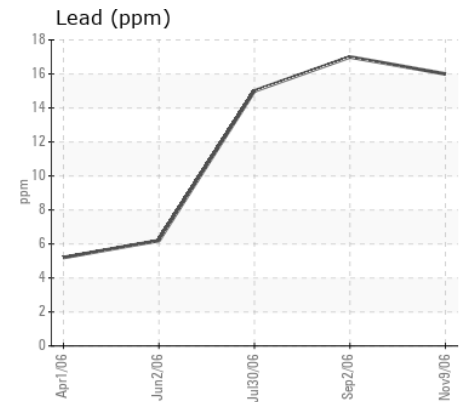
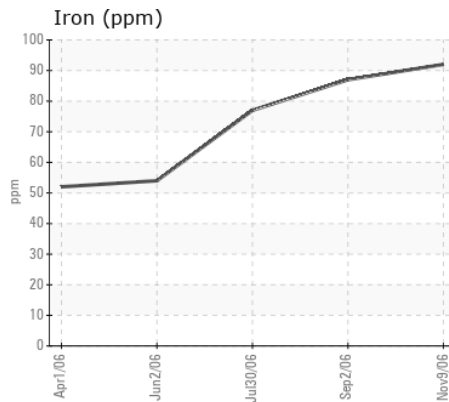
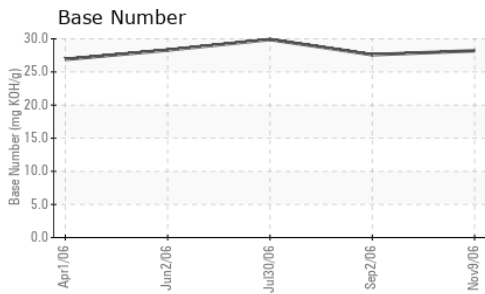
There is no indication of any contamination in the component.

Silicon	ppm	ASTM D5185m		12	12	3
Potassium	ppm	ASTM D5185m		0	0	<1
Fuel		WC Method		<1.0	<1.0	<1.0
Water		WC Method		NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.7	0.3	0.2
Nitration	Abs/cm	*ASTM D7624		0.25	0.15	0.11
Sulfation	Abs/.1mm	*ASTM D7415		0.50	0.23	0.16
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		13	5	5
Boron	ppm	ASTM D5185m		<1	<1	3
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		164	143	137
Manganese	ppm	ASTM D5185m		2	2	2
Magnesium	ppm	ASTM D5185m		3845	3304	2889
Calcium	ppm	ASTM D5185m		7726	6583	6400
Phosphorus	ppm	ASTM D5185m		1185	995	939
Zinc	ppm	ASTM D5185m		1847	1617	1446
Oxidation	Abs/.1mm	*ASTM D7414		0.51	0.20	0.15
Base Number (BN)	mg KOH/g	ASTM D2896		28.2	27.6	29.9
Visc @ 100°C	cSt	ASTM D445		17.76	18.37	18.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP034731
Lab Number : 01866055
Unique Number : 3954605
Test Package : MOB 2

Received : 16 Nov 2006
Tested : 17 Nov 2006
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)

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