



**ANAC references : FGAH --93 --22**

**Your references :**

Machine: Engine on sewage gas / XXXX / 10320 205101 / 10320

**TOTAL**



LS

**Make and type:**

Machine: XXXX XXXX

SPECIMEN / ZZ

Diagnosis date: 17 january 2013

Oil : Total Nateria MJ 40

	GAS	GAS	GAS	GAS	GAS
	06-AUG-12	30-AUG-12	12-JUL-12	26-SEP-12	07-JAN-13
Sample date	06-AUG-12	30-AUG-12	12-JUL-12	26-SEP-12	07-JAN-13
Sample Number	80033021	80033694	80028451	80033679	80035482
Working time	11500 H	12070 H	10944 H	12668 H	14914 H
Mileage oil	576 H	546 H	795 H	616 H	700 H
Oil consumption	15 L	5 L			

**Wear**

Iron	ppm	16	5	17	24	28
Lead	ppm	14	4	17	21	18
Copper	ppm	9	3	12	11	17
Tin	ppm	< 1	< 1	< 1	< 1	< 1
Chromium	ppm	1	< 1	1	2	3
Aluminium	ppm	2	< 1	2	2	2
Nickel	ppm	< 1	< 1	< 1	< 1	< 1

**Contamination**

Silicon	ppm	32	13	41	19	35
Water	%	OK	OK	OK	OK	OK
Cooling liq.		NN	NN	NN	NN	NN

**Oil**

B.N.	mgKOH/g	5.4	6.2	5.6	4.0	3.4
A.N.	mgKOH/g	4.0	3.1	3.9	4.2	4.5
IpH		4.2	5.3	4.4	3.9	2.7
Visc. 40°C	mm2/s	186.2	176.2	175.6	197.6	218.1
Visc. 100°C	mm2/s	17.4	16.9	16.9	18.2	19.3
Visc. Index		100	102	102	101	100
Oxidation	A/cm	12.4	0.0	10.5	10.5	31.0
Nitration	A/cm	14.2	0.4	13.7	1.0	45.5

**Additives**

Boron	ppm	61	31	69	67	115
Sodium	ppm	2	1	3	3	4

**Interpretation of the diagnosis**

- Metals content slightly high.
- Viscosity value is too high.
- BN is too low
- AN is too high
- Oxidation is too high
- Nitration is too high
- The oil change was justified.