

Unit ID **CHP combined heat/power unit**
Component **Biogas engine**
Current sample number **1700738**



OELCHECK GmbH · Postfach 1116 · 83094 Brannenburg

Machine type: **JMS312 GS-BL**
Manufacturer: **Jenbacher**
Oil brand name: **Tectrol MethaFlexx MC plus 40**
Oil quantity in system: **230 l**

Example report
Analysis scope: Analysis-Kit 4

Diagnosis for the current laboratory values

There is no significant change of wear metals since the previous sample. Oil viscosity has increased. The possible reason is oxidation and oil aging because of long-term use of the oil or an increased oil or operating temperature. The base number BN (indicator for alkaline reserve) is lower than in the fresh oil. Therefore, the oil can neutralize fewer acids created in the combustion process. All other analysis data are within the permissible or expected value range. Please observe further changes with the next sample. Please send us the next sample after a further 200 hours for trend analysis. No oil change is required during this period if the operating conditions remain similar.

Dipl.-Ing. (FH) Stefan Mitterer

Sample Rating



Caution

ANALYSIS RESULTS			Current sample	Previous samples		
LAB NUMBER			1700738	1700739	1700740	1700741
SAMPLE RATING			?	✓	✓	✓
Date tested			15.12.2014	10.12.2014	03.12.2014	27.11.2014
Date of sample taken			11.12.2014	08.12.2014	01.12.2014	25.11.2014
Date of last oil change			13.11.2014	13.11.2014	13.11.2014	13.11.2014
Top-up since change	l		160	135	110	70
Operating time since change	h		800	600	400	200
Total operating time	h		800	600	400	200
H2S content	ppm		26	-	-	-
Oil changed			no	no	no	no
WEAR						
Iron	Fe	mg/kg	3	4	3	3
Chrome	Cr	mg/kg	0	0	0	0
Tin	Sn	mg/kg	0	0	0	0
Aluminum	Al	mg/kg	5	7	5	5
Nickel	Ni	mg/kg	0	0	0	0
Copper	Cu	mg/kg	2	2	2	2
Lead	Pb	mg/kg	0	2	0	0
Molybdenum	Mo	mg/kg	0	2	0	0
PQ index	-		< 25	< 25	< 25	< 25
CONTAMINATION						
Silicon	Si	mg/kg	2	3	2	3
Potassium	K	mg/kg	31	35	31	29
Sodium	Na	mg/kg	0	4	7	3
Chlorine	Cl	mg/kg	45	< 30	< 30	< 30
Water	%		< 0.10	< 0.10	< 0.10	< 0.10
IR Glycol	-		negative	negative	negative	negative
OIL CONDITION						
Viscosity at 40°C	mm²/s		175.86	162.08	157.34	153.31
Viscosity at 100°C	mm²/s		17.29	16.11	16.02	15.80
Viscosity index	-		106	103	106	106
Oxidation	A/cm		10	10	8	1
Nitration	A/cm		2	1	1	1
Sulfation	A/cm		1	-	-	1
ADDITIVES						
Calcium	Ca	mg/kg	2401	2606	2417	2263
Magnesium	Mg	mg/kg	7	9	10	7
Boron	B	mg/kg	1	0	1	0
Zinc	Zn	mg/kg	25	29	26	29
Phosphorus	P	mg/kg	628	740	627	620
Barium	Ba	mg/kg	0	0	0	0
Sulphur	S	mg/kg	8188	8158	7756	7811
ADDITIONAL TESTS						
BN	mgKOH/g		6.35	8.38	8.23	8.12
AN / NN	mgKOH/g		2.49	2.24	1.60	1.56
I pH value	-		5.14	5.91	6.00	5.98

Bottle and Cap



Infrared Spectrum

