
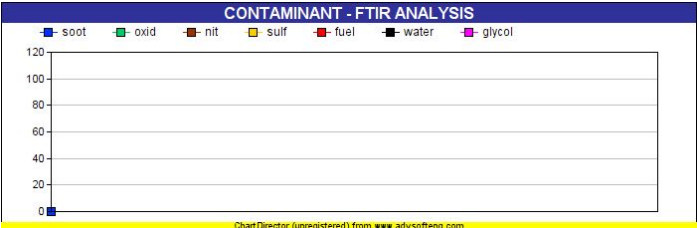




OIL ANALYSIS REPORT

Customer Name	: TANJUNG ENIM	Component	: REAR DIFFERENTIAL
For Attention	: PT. BANGUN KARYA PRATAMA L.	Component Matrix	: GEF30
Address	: TANJUNG ENIM	Oil Matrix	:
Unit Model	: P 380	Lube Oil Name	: RORED 140
Unit Number	: BK 236		

TEST DETAILS								Overall Analysis Result:	
Lab. Number		09001458		09003395					ATTENTION
Sampling Date		2009-02-16		2009-04-04					
Received Date		2009-02-18		2009-04-06					
Report Date		2009-02-18		2009-04-06					
Hours on Oil		270		725					
Hours On Unit		270		995					
Oil Change		No		No					
Physical Test		Unit	Method		Test Value			Attention	Urgent
Visc@40C (*)	cSt	ASTM D445-12						Warning	Limit
Visc@100C (*)	cSt	ASTM D445-12		24.85	26.74				
TAN	mg KOH/g	ASTM D974-12		B/1.97	B/1.71				
TBN	mg KOH/g	ASTM D2896-11							
Metal Additive									
Magnesium (Mg)	ppm	ASTM D 5185-13e1							
Calcium (Ca)	ppm	ASTM D 5185-13e1							
Zinc (Zn)	ppm	ASTM D 5185-13e1							
Boron	ppm	ASTM D5185-09							
Phosphor	ppm	ASTM D5185-09							
Contaminant									
Natrium (Na)	ppm	ASTM D 5185-13e1		0	5			30	50
Silicon (Si)	ppm	ASTM D 5185-13e1		3	1			30	50
Wear Metal									
Iron (Fe)	ppm	ASTM D 5185-13e1		23	6			300	500
Copper (Cu)	ppm	ASTM D 5185-13e1		12	4			30	50
Alumunium (Al)	ppm	ASTM D 5185-13e1		1	0			12	20
Chromium (Cr)	ppm	ASTM D 5185-13e1		0	0			6	10
Nickel (Ni)	ppm	ASTM D 5185-13e1		0	1				
Tin (Sn)	ppm	ASTM D 5185-13e1							
Lead (Pb)	ppm	ASTM D 5185-13e1		1	0			20	40
PQ Index									
Color									
FTIR								Warning	Limit
Soot	Abs/cm	ASTM E2412-10		0	0			0.2	0.4
Oxidation	Abs/cm	ASTM E2412-10		B/0.38	0.17				
Nitration	Abs/cm	ASTM E2412-10		0	0.05				
Sulfation	Abs/cm	ASTM E2412-10		B/0.32	0				
Fuel Dilution	ppm	ASTM E2412-10		0	0				
Water Content	ppm	ASTM E2412-10		0	0				
Glycol	ppm	ASTM E2412-10		0	0				
Cleanliness								21/18	24/21
4 um	Particles/ml								
6 um	Particles/ml								
14 um	Particles/ml								
ISO CODE	-	ISO 4406							
OTHERS									



Source of Abnormality

Angka keasaman pelumas cukup tinggi.

Action to be taken

Lakukan top up, minimal 20 - 30%v; Pelumas masih dapat digunakan; Lakukan resampling 500 Jam berikutnya.

Manager Teknis

(*) Berdasarkan ISO VG Grade dan SAE Viscosity Grade
(*) Catatan : Data analisa hanya berlaku untuk sample yang diuji di laboratorium PT. Petrolab Services
Pengaduan tidak dilayani setelah 30 hari dari tanggal report di terbitkan

Reko Sayogo, S.Si