

System: DIESEL ENGINE  
 Sump Capacity (k): 40 L  
 Lubricant (k): TOTAL RUBIA TIR 8800 SAE 10W40  
 Labocodenbr: 115664-AB.1  
 Samplenumbr: 05.10.23 D004  
 Labelnumber: 30011925  
 Date sample drawn (k): 2.09.2023  
 Sampling: by client

Customer (k): BAUTINO 1 (SAIPEM)

Address (k):

Your customer (k): HPU 2 MOT

Your ref. (k): 1412467/CF23037



Oil



Pollution



Wear



## Diagnostic

The oil is contaminated with dieselfuel. Wear elements within tolerance. The other characteristics are considered as normal.

Attention

Results:	Method*	Unit	Current sample						05.10.23 D004
Analysis date			5/10/2023	25/05/2023	22/02/2023	12/05/2022	19/07/2019	24/10/2018	
Date of receipt			5/10/2023	25/05/2023	22/02/2023	12/05/2022	19/07/2019	24/10/2018	
Sample date (k)			2/09/2023	27/04/2023	14/11/2022	18/04/2022	8/07/2019	23/08/2018	
H/Km Oil (k)			229 H	274 H	600 H	500 H	301 H	141 H	
H/Km total (k)			7542 H	6145 H	4774 H	4030 H	3978 H	3667 H	
Top up (k)			?	?	20	40	40	40	

## Oil Condition:

Viscosity at 40°C	ASTM D7279	cSt						
Viscosity at 100°C	ASTM D7279	cSt	12.5	12.7	14.5	12.3	13.5	14.8
Viscosity-index	ASTM D2270							
Fuel dilution	ASTM D7593	%	2.41	1.79	1.69	4.47	0.90	1.41
AN	ASTM D8045	mg KOH/g						
BN	ASTM D2896B	mg KOH/g	11.4	11.5	11.3	9.7	8.9	10.2
Oxidation	ASTM E2412 (A)	Abs/0.1mm	9.3	13.5	14.0	29.6	42.6	40.4
Nitration	ASTM E2412	Abs/0.1mm	5.1	7.3	8.7	9.2	12.2	12.0
PMCC	ASTM D93	°C						
COC	ASTM D92B	°C						
Color	ASTM D1500							

## Additives:

Ba: Barium	ASTM D5185	ppm	1	< 1	< 1	< 1	< 1	< 1
Ca: Calcium	ASTM D5185 (A)	ppm	4110	4490	4450	2720	1510	1400
Mg: Magnesium	ASTM D5185 (A)	ppm	11	15	15	519	959	911
P: Phosphorus	ASTM D5185 (A)	ppm	1069	1250	1291	1014	903	841
S: Sulfur	ASTM D5185	%	0.30	0.35	0.36	0.33	0.32	0.29
Zn: Zink	ASTM D5185 (A)	ppm	1164	1352	1364	1138	955	955

## Pollution:

Si: Silicium	ASTM D5185 (A)	ppm	< 10	< 10	10	14	18	18
B: Boron	ASTM D5185	ppm	477	822	530	129	51	51
Na: Sodium	ASTM D5185 (A)	ppm	5	< 5	5	< 5	< 5	< 5
Water	WI-0002	%	< 0.04	< 0.04	0.07	0.06	< 0.04	< 0.04
Water (KF)	ASTM D6304C	ppm						
Soot content	ASTM E2412 (A)	%	0.09	0.51	1.18	0.73	1.39	1.68
Antifreeze	ASTM D2982A		Neg.	Neg.	Neg.	Neg.	Neg.	Neg.
PC ISO grade	ASTM D7647 (A)							
PC Cleanliness class	ASTM D7647 (A)							
Insolubles	ASTM D4898	mg/l						

## Wear metals:

Al: Aluminium	ASTM D5185 (A)	ppm	< 5	< 5	< 5	< 5	< 5	< 5
Cr: Chromium	ASTM D5185 (A)	ppm	< 5	< 5	< 5	< 5	< 5	< 5
Cu: Copper	ASTM D5185 (A)	ppm	< 5	< 5	< 5	12	6	< 5
Fe: Iron	ASTM D5185 (A)	ppm	5	42	20	33	62	34
Mo: Molybdenum	ASTM D5185 (A)	ppm	58	66	65	95	51	46
Pb: Lead	ASTM D5185 (A)	ppm	11	< 5	< 5	< 5	< 5	< 5
Sn: Tin	ASTM D5185	ppm	< 1	< 1	1	1	< 1	< 1
PQ index	WI-0021							

These conclusions are based on the supplied samples and information where the representativeness and validity cannot be guaranteed. Opinions and interpretation are outside the scope of accreditation. The measurement uncertainty is available on request. Samples are destroyed 2 months after receipt. The report may only be reproduced complete. Distribution on the responsibility of the client. \*Methods are modified according to specified method. (A) Accreditation. (U) Outsourced. (k) Received info from customer.

Batch: 2327904 - p.1 / 3

Diagnosis: ANW

Date of issue: 06/10/2023

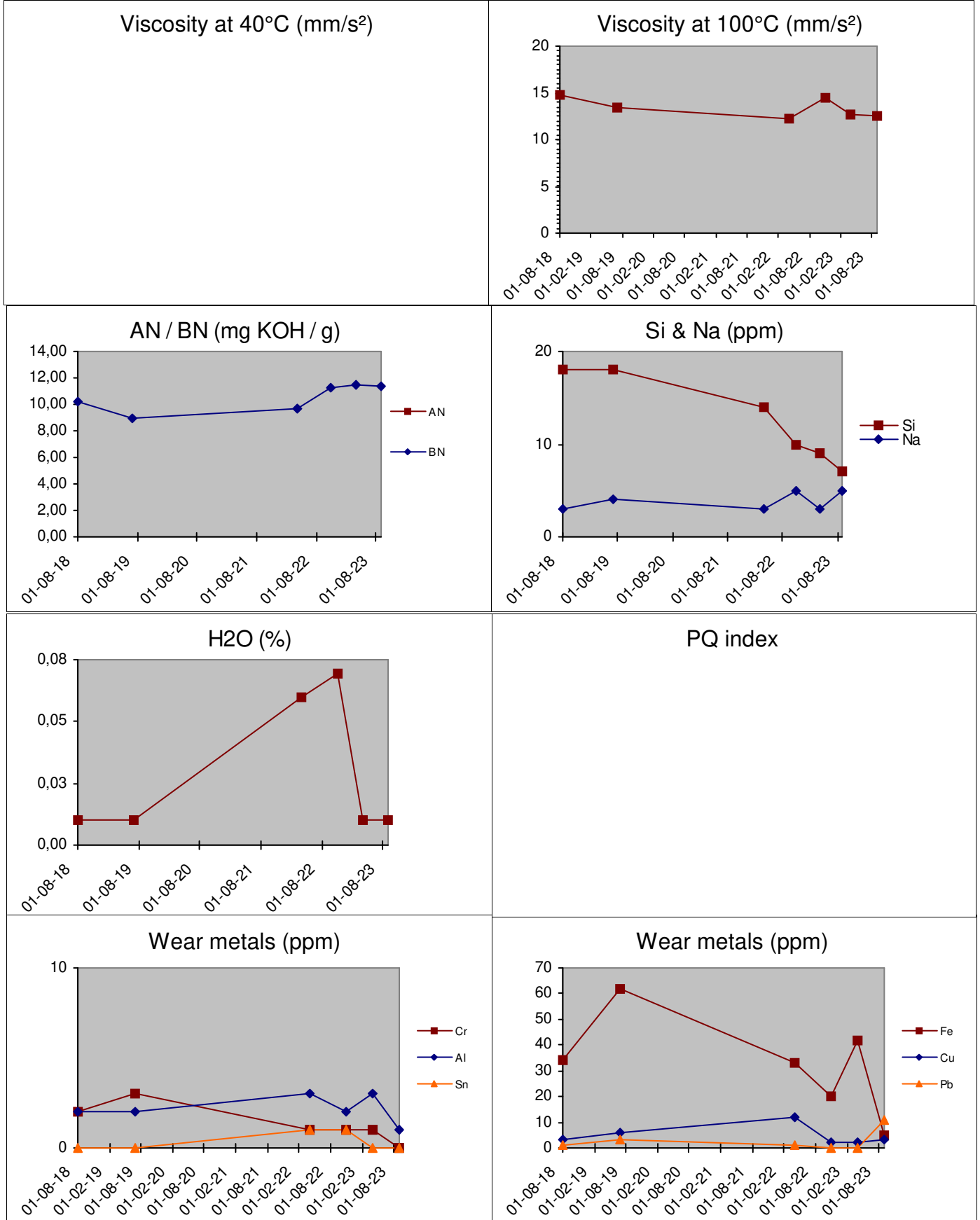
SA01 SAIPEM LTD.

## History lubricant:

05.10.23 D004

1	05.10.23 D004	TOTAL RUBIA TIR 8800 SAE 10W40
2	25.05.23 D004	TOTAL RUBIA TIR 8800 SAE 10W40
3	22.02.23 R003	TOTAL RUBIA TIR 8800 SAE 10W40
4	12.05.22 D004	TOTAL RUBIA TIR 8800 SAE 10W40
5	19.07.19 F004	ENI I-SIGMA TOP MS SAE 5W30
6	24.10.18 C004	ENI I-SIGMA TOP MS SAE 5W30

History 05.10.23 D004



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