



Client Name: SBS Transit Ltd
Client Address: 205 Braddell Road
 Singapore 579701

Diesel Engine

UIN 537FF

UNIT NO. SBS 0920X
UNIT MAKE Volvo
UNIT MODEL .
UNIT SERIAL NO.
SYSTEM CAPACITY Ltrs

DATE SAMPLED 08/09/04
DATE RECEIVED 09/09/04
DATE REPORTED 14/09/04

COMPARTMENT NAME Diesel Engine
COMPARTMENT MAKE Volvo
COMPARTMENT MODEL Mk4
COMPARTMENT SERIAL NO.
MACHINE LOCATION HG

	08/09/04	20/07/04	01/07/04	23/04/04	04/12/03
DATE SAMPLED	08/09/04	20/07/04	01/07/04	23/04/04	04/12/03
SAMPLE NO.	5615449	5615151	5615045	5614621	5531299
COMPONENT Kms	933575	922925	912904	901844	868825
MACHINE Kms	933575	922925	912904	901844	868825
OIL Kms	60000	50000	40000	Not Provided	Not Provided
OIL MAKE	ESSO	ESSO	ESSO	ESSO	ESSO
OIL TYPE	ESSO	ESSO	ESSO	ESSO	ESSO
OIL GRADE	SAE 40	SAE 40	SAE 40	SAE 40	SAE 40
OIL ADDED Ltrs	Not Provided	Not Provided	Not Provided	Not Provided	Not Provided
FILTER Kms	Not Provided	Not Provided	Not Provided	Not Provided	Not Provided
OIL CHANGED	Not Changed	Not Changed	Not Provided	Not Provided	Not Provided

Metals (ppm)

Aluminium (Al)	4	4	2	3	2
Copper (Cu)	7	6	6	4	4
Chromium (Cr)	3	2	2	2	1
Iron (Fe)	77	62	60	43	32
Lead (Pb)	15	8	9	5	4
Tin (Sn)	1	< 1	2	1	< 1
Nickel (Ni)	< 1	1	1	2	1

Contaminants and Additives (ppm)

Silicon (Si)	15	13	14	15	11
Boron (B)	< 5	< 5	< 5	< 5	7
Sodium (Na)	15	5	5	4	8
Potassium (K)	< 1	1	2	< 1	< 1
Phosphorus (P)	1427	1377	1258	1166	1145
Molybdenum (Mo)	2	2	2	1	1
Calcium (Ca)	3108	2915	2757	2558	2522
Magnesium (Mg)	378	336	279	312	274
Zinc (Zn)	1791	1633	1530	1416	1351

Physical Tests

Water (% by FTIR)	0.4	< 0.1	< 0.1	< 0.1	< 0.1
Soot %	2.1	1.9	2	1.6	1.5
Viscosity (cSt,100°C)	13.6	14.1	14.3	13.3	12.8
Oxidation (Abs)	13.6	15.8	16	14.7	12.5
Fuel %	1	1	1	1	2
Total Base Number D2896	8.5	8.1	6.8	7.2	8.2

W/C
4006757
Amy.Sol
Brett.Elphick



DIAGNOSIS

Current Sample :

All wear rates normal. Abrasive and other contaminant levels acceptable. Viscosity within specified operating range.

Action: Resample next service interval to further monitor.

Last Sample :

All wear rates normal. Abrasive and other contaminant levels acceptable. Viscosity within specified operating range.

Action: Resample next service interval to further monitor.



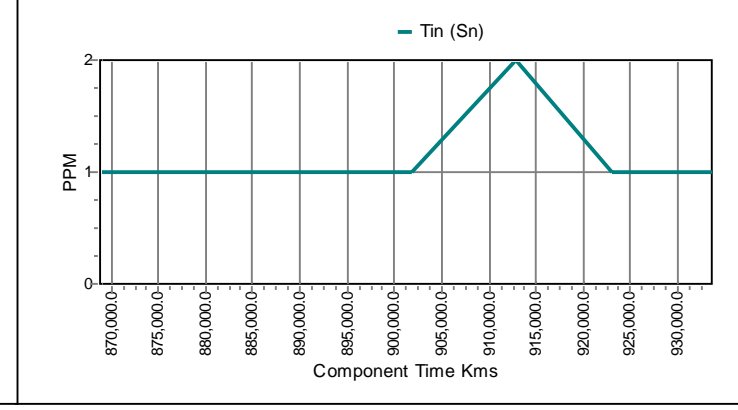
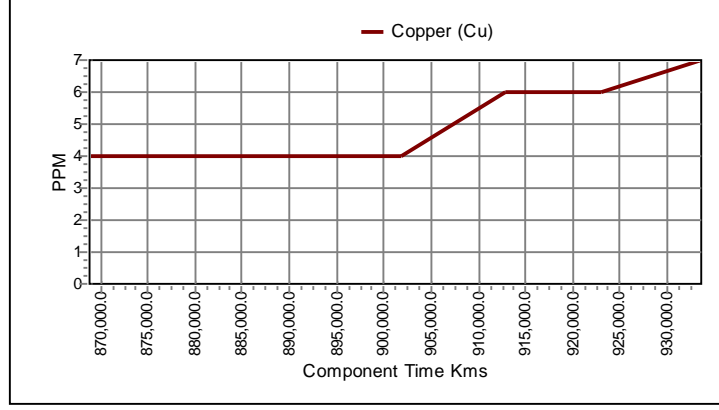
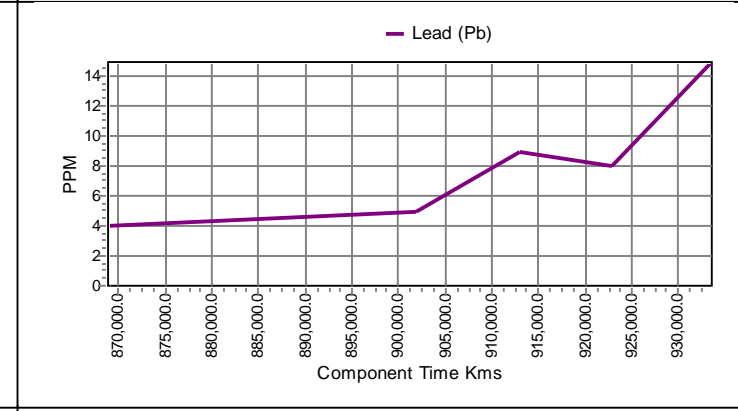
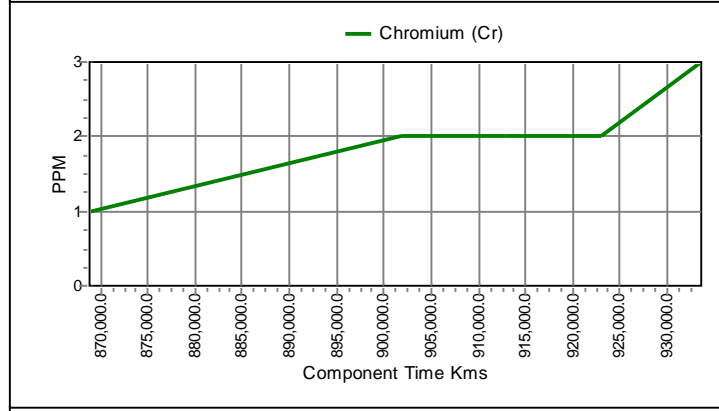
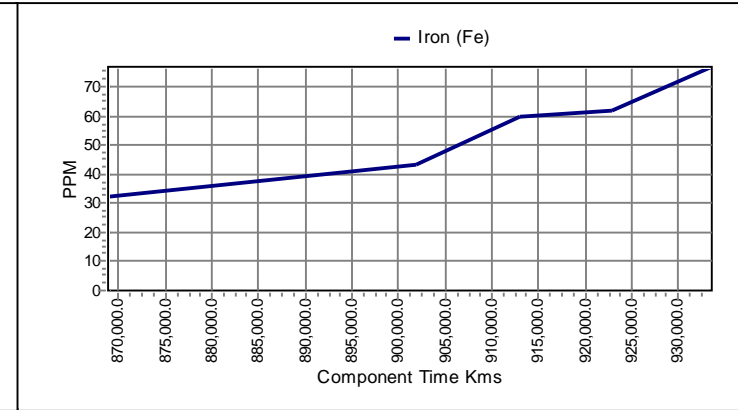
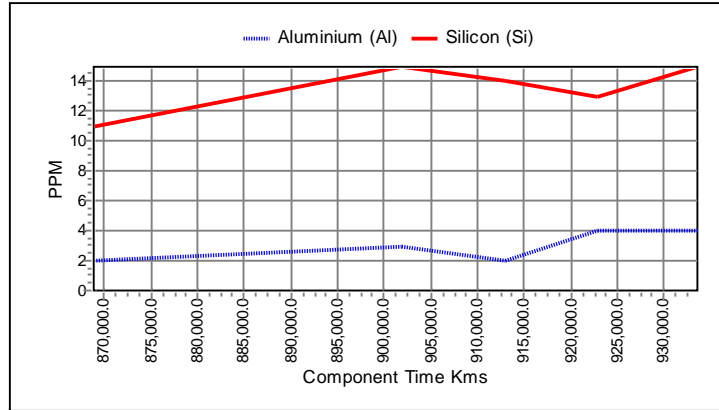
LEGEND

- SEVERE
- ABNORMAL
- CAUTION
- NORMAL



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"This analysis report is dependent upon the accurate completion of the sample submission sheet and correct sample techniques as advised. The analysis is intended as an aid only in predicting mechanical wear and should not be regarded as a substitute for proper servicing or mechanical inspection. The company does not accept any liability whatsoever in respect of any loss or damage (including loss of profits, economic or other consequential loss or damage) however caused which may arise directly, or indirectly, as a result of the matters referred to in this analysis report."