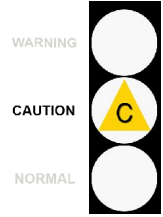


C Code : 25040
 U Name :
 S Address : 29th - 31st Floor, Shinawatra Tower 3,
 T 1010 Viphavadi Rangsit Road,
 O Chatuchak, Bangkok 10900
 M Site : G3010A
 E Location :
 R Test code : E804

Unit ID : **WP B Diesel Gen A**
 Unit Type : Engine Diesel
 Unit Make : CUMMINS
 Unit Model : KTA50 G9
 Oil type / Viscosity : VALVOLINE PREMIUM BLUE SAE 15W40
 Oil System Capacity : 160 Liters



Notes (Finding, Evaluation, Interpretation, Suggestion and Recommendation)

Oil condition tests indicate that the oil is slightly degraded.
 Recommend change oil and flush system with clean oil to remove contamination, if the oil from this sample is still in use in this component.

Somchai J.

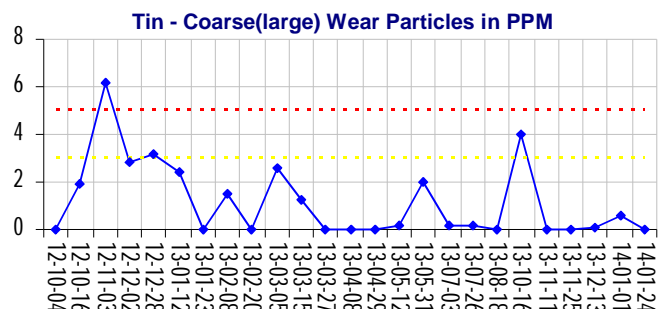
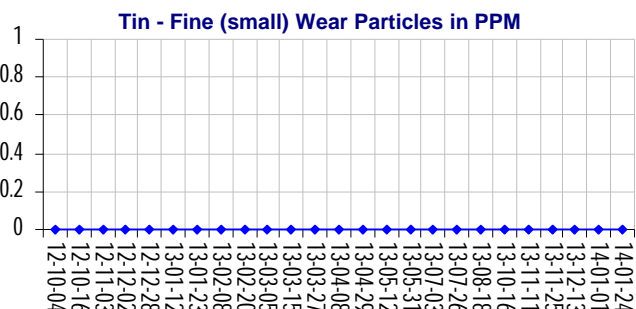
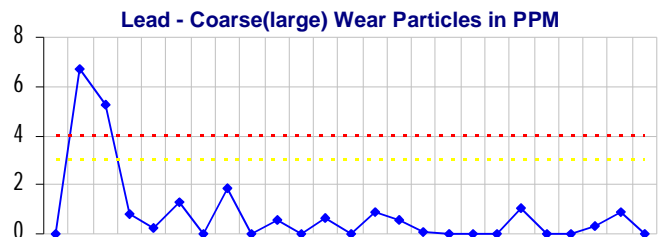
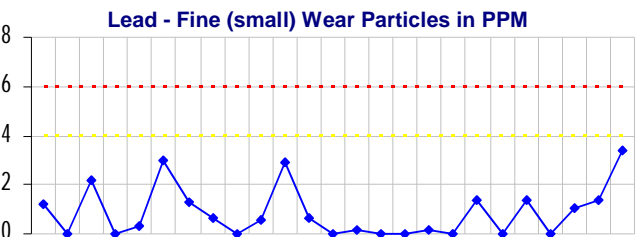
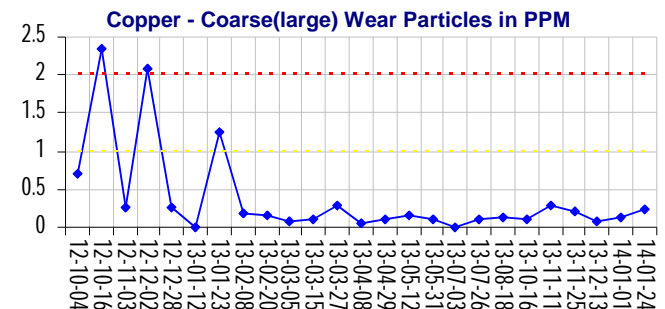
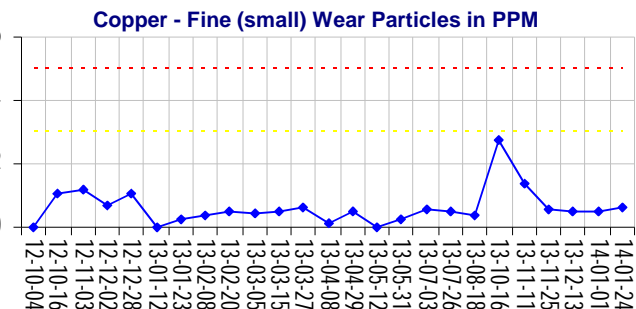
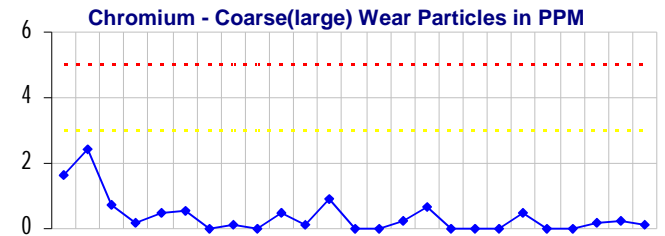
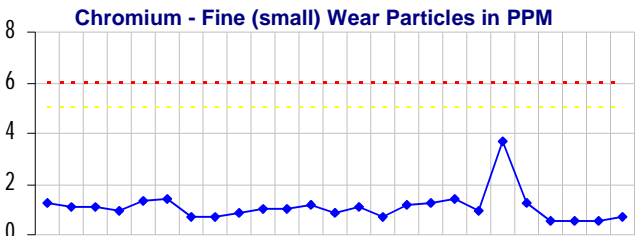
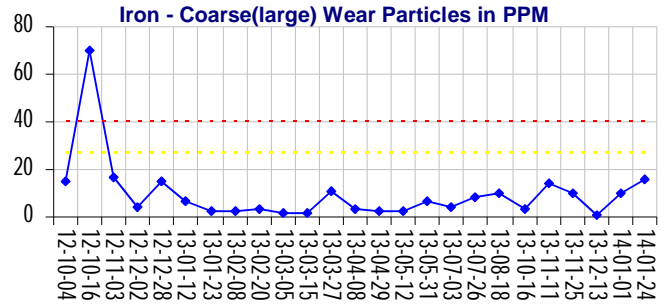
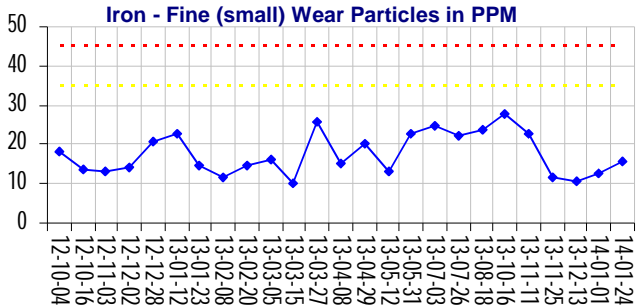
			Current Sample			Previous Sample			Baseline and Alarm Limit						
Condition History			Wear	Oil	Cont.	Wear	Oil	Cont.	Wear	Oil	Cont.	Alarm Limit			
			N	C	N	N	N	C	N	N	N	Alarm Limit Matrix -Set Name (Equipment type / oil type)			
Lab ID	Test Method	Result	244339			243510			243501			Engine Diesel Cummins			
Bottle ID			1029036			1029041			1028933			KTA50 Valvoline Premium			
Date Sampled			24-Jan-14			01-Jan-14			13-Dec-13			Blue 15W40(Pearl Oil)			
Oil Hours (Kms)			429			350			350						
Unit Hours (Kms)			21821			21392			20963						
Oil Change															
Oil Added (Liters)			429			350			350						
Filters Hours (Kms)															
Wear Condition			Fine(small) Wear	Coarse(large) Wear	Fine(small) Wear	Coarse(large) Wear	Fine(small) Wear	Coarse(large) Wear	The New Oil (TNO)	Fine Wear	Coarse wear				
Iron	D-6595	PPM	15.7	15.7	12.4	10.2	10.6	1.1	0	>35	>45	>27	>40		
Chromium	D-6595	PPM	0.7	0.1	0.6	0.2	0.6	0.2	0	>5	>6	>3	>5		
Lead	D-6595	PPM	3.4	0.0	1.4	0.8	1.1	0.3	0	>4	>6	>3	>4		
Copper	D-6595	PPM	0.6	0.2	0.5	0.1	0.5	0.1	0	>3	>5	>1	>2		
Tin	D-6595	PPM	0.0	0.0	0.0	0.6	0.0	0.1	0			>3	>5		
Aluminum	D-6595	PPM	1.8	1.6	1.3	1.0	1.3	0.8	2	>4	>5	>3	>5		
Nickel	D-6595	PPM	0.2	0.0	0.0	0.2	0.0	0.4	0						
Silver	D-6595	PPM	0.0	0.0	0.0	0.0	0.0	0.0	0						
Molybdenum	D-6595	PPM	39.0	8.3	45.0	0.7	39.2	4.6	95						
Titanium	D-6595	PPM	0.0	0.0	0.0	1.7	0.0	0.0	0						
Oil Condition									TNO	L-Warning	L-Caution	U-Caution	U-Warning		
Viscosity @ 40°C	D-445	cSt							14.7	<12.5	<13.2	>16.2	>16.9		
Viscosity @ 100°C	D-445	cSt	16.0		15.8		15.7		12.7		>15.9	>19			
Oxidation	FTIR	Abs	20.3 W		11.0		12.2		3.8		>7.6	>8.5			
Nitration	FTIR	Abs	6.9		6.4		7.2		11.5	<2.5	<5.7				
TAN	D-974	mg KOH/g													
TBN	D-4739	mg KOH/g	8.1		8.5		8.6								
Contamination									TNO			U-Caution	U-Warning		
Water	FTIR	% (Wt.)	0.048		0.052		0.079		0.070			>0.2	>0.5		
Fuel	SAW	% (Wt.)	0.10		0.10		0.10					>2.5	>5		
Glycol	FTIR	Abs	0		0		0								
Soot	FTIR	% (Wt.)	0.56		0.60		0.62					>1.7	>2.1		
Vanadium	D-6595	PPM	0		0		0		0						
Sodium	D-6595	PPM	9		8		7		8	>25	>28				
Silicon	D-6595	PPM	7.0	4.7	11.2	19.8 W	6.2	1.2	21	>30	>35	>9	>15		
Additive Element									TNO						
Boron	D-6595	PPM	367		419		386		126						
Magnesium	D-6595	PPM	20		21		20		26						
Calcium	D-6595	PPM	3506		3618		3377		3143						
Barium	D-6595	PPM	0		0		0		0						
Phosphorus	D-6595	PPM	1051		1079		1111		1406						
Zinc	D-6595	PPM	1498	359	1529	145	1471	128	1618						
Additional Test									TNO	L-Warning	L-Caution	U-Caution	U-Warning		
Flash Point	D-3828	°C													
Viscosity Index	D-2270														

Note: Alarm Limits are variable and dependent upon dataset size and to be used as general guideline.
 No Sign or **N** : NORMAL, **C** or **C** : CAUTION (first level warning limit), **W** or **W** : Warning (second level warning limit)
U-Caution : Upper CAUTION Level, **L-Caution** : Lower CAUTION Level, First Level Alarm, Alert Limit in Upper Level and/or Lower Level
U-Warning : Upper WARNING Level, **L-Warning** : Lower WARNING required Level, Second Level Alarm, Alert Limit in Upper Level and/or Lower Level
 Baseline will be data of either "The new oil" or "Reference oil" or "Oil specification".
 Accuracy of interpretation and recommendation are based on representives sample and information supplied.
 TNO = The new oil, RO = Reference oil, OS = Oil Specification
 No warranty is expressed or implied for this report.

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 R Test code : E804

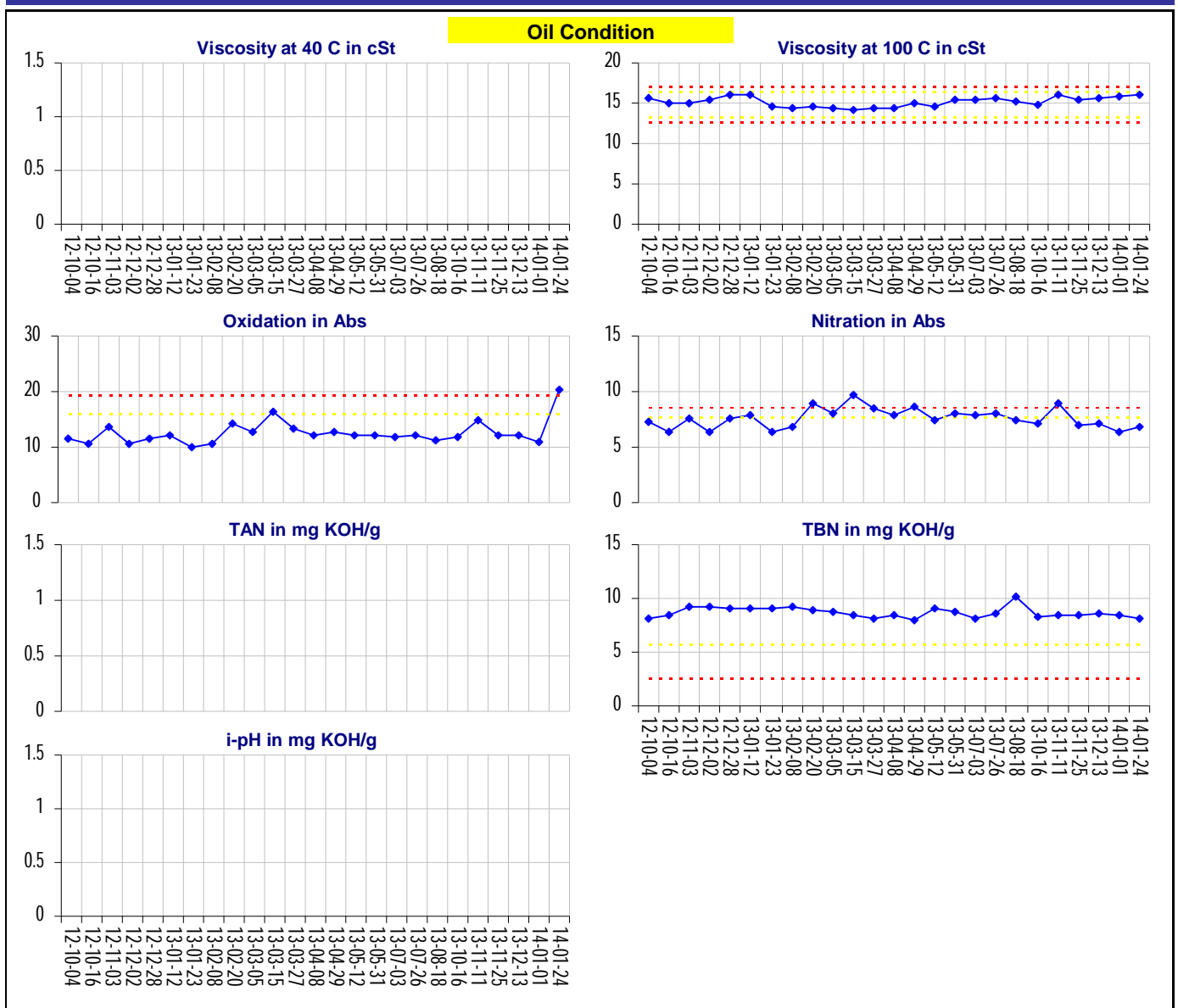
Unit ID : **WP B Diesel Gen A**
 Unit Type : Engine Diesel
 Unit Make : CUMMINS
 Unit Model : KTA50 G9
 Oil type / Viscosity : VALVOLINE PREMIUM BLUE SAE 15W40
 Oil System Capacity : 160 Liters

Wear Condition



C Code : 25040
 U Name :
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 T 1010 Viphavadi Rangsit Road,
 O Chatuchak, Bangkok 10900
 M Site : G3010A
 E Location :
 R Test code : E804

E Unit ID : **WP B Diesel Gen A**
 O Unit Type : Engine Diesel
 U Unit Make : CUMMINS
 I Unit Model : KTA50 G9
 P Oil type /
 M Viscosity : VALVOLINE PREMIUM BLUE SAE
 E 15W40
 N Oil System Capacity : 160 Liters



C Code : 25040
 Name :
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 Site : G3010A
 Location :
 Test code : E804

Unit ID : **WP B Diesel Gen A**
 Unit Type : Engine Diesel
 Unit Make : CUMMINS
 Unit Model : KTA50 G9
 Oil type / Viscosity : VALVOLINE PREMIUM BLUE SAE 15W40
 Oil System Capacity : 160 Liters

