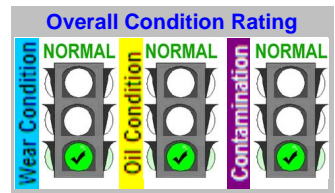


C U S T O M E R
Code : **15020**
Name :
Co., Ltd.
Address : 7/252, 7/282 Moo 6, Amata City Industrial Estate, Tambol Mapyangporn, Amphur Pluakdaeng, Rayong 21140
Site :
Location :
Test code : 89408

E Q U I P M E N T
Unit ID : **TOSHIBA MC7**
Unit Type : Hyd Syst Industrial
Unit Make : TOSHIBA
Unit Model : (not given)
Oil type / Viscosity : CASTROL HYSPIIN AWS46
Oil System Capacity : 2000 Liters



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

All wear conditions and wear tests appear in normal working range.
All oil conditions and oil tests appear in normal working range.
All contaminant conditions and contaminant levels appear in normal ranges.
No oil change recommended at this time, oil appears suitable for further use. Continue routine sampling interval.
Recommend test for Varnish & Sludge Potential Index-VsPI (Test Code ET 913).

AS / Andy Sitton

			Current Sample			Previous Sample			Baseline and Alarm Limit							
Condition History			Wear	Oil	Cont.	Wear	Oil	Cont.	Wear	Oil	Cont.	Alarm Limit				
			N	N	N	N	N	N	N	▲	N	Alarm Limit Alarm Limit Matrix -Set Name (Equipment type / oil type) Hyd Syst General Castrol Hyspin AWS 46				
Lab ID	Test Method	Result	148325			142162			120310			Reference Oil (RO)	RDE fine		RFS coarse	
Bottle ID			810384			106872			902170				U-Caution	U-Warning	U-Caution	U-Warning
Date Sampled			12-Nov-10			04-Aug-10			09-Sep-09				>10	>20	>10	>20
Oil Hours (Kms)			Not Given			Not Given			1000				>5	>9	>6	>10
Unit Hours (Kms)			Not Given			Not Given			Not Given				>45	>75	>30	>55
Oil Added (Liters)			Not Given			Not Given			Not Given				>2	>3	>3	>6
Filters Hours (Kms)	Not Given			Not Given			Not Given			>2	>3	>2	>4			
			>1	>2	>2	>3										
Wear Condition			RDE fine		RFS coarse		RDE fine		RFS coarse		RDE fine		RFS coarse			
Wear Element	Method	Unit														
Iron	D-6595	PPM	4.8	2.6	4.5	1.5	8.2	1.6	0	>10	>20	>10	>20			
Chromium	D-6595	PPM	0.4	0.3	0.4	0.1	0.4	0.2	0	>1	>2	>1	>2			
Lead	D-6595	PPM	0.1	0.0	0.3	0.0	0.1	0.0	0	>5	>9	>6	>10			
Copper	D-6595	PPM	10.6	3.5	9.8	0.5	23.7	1.3	0	>45	>75	>30	>55			
Tin	D-6595	PPM	0.9	0.5	0.3	1.0	0.0	0.0	0	>2	>3	>3	>6			
Aluminum	D-6595	PPM	0.0	0.1	0.1	0.7	0.1	0.0	0	>2	>3	>2	>4			
Nickel	D-6595	PPM	0.0	0.0	0.0	0.2	0.0	0.0	0	>1	>2	>2	>3			
Silver	D-6595	PPM	0.0	0.0	0.0	0.0	0.0	0.0	0							
Molybdenum	D-6595	PPM	0.0	0.1	0.0	0.5	0.0	0.1	0							
Titanium	D-6595	PPM	0.0	0.0	0.0	0.0	0.0	0.0	0							
Oil Condition			RDE fine		RFS coarse		RDE fine		RFS coarse		RO	L-Warning	L-Caution	U-Caution	U-Warning	
Viscosity @ 40°C	D-445	cSt	46.1		46.2		46.5				46.0	<41.4	<43.7	>48.3	>50.6	
Viscosity @ 100°C	D-445	cSt														
Oxidation	FTIR	Abs	3.9		3.3		4.9 W				3.2		>4.8	>5.6		
Nitration	FTIR	Abs	3.5		3.3		2.9				3.5		>5.3	>6.1		
TAN	D-974	mg KOH/g.	0.38		0.42		0.26				0.52		>1.5	>2.5		
TBN	D-4739	mg KOH/g.														
Contamination			RDE fine		RFS coarse		RDE fine		RFS coarse		RO	U-Caution	U-Warning			
Water	T-H2O Check™	% (Wt.)	0.026		0.015		0.014				0.010		>0.05	>0.08		
			RDE fine		RFS coarse		RDE fine		RFS coarse		U-Caution		U-Warning			
Sodium	D-6595	PPM	0		0		0				0	>15	>25	>10	>20	
Silicon	D-6595	PPM	5.5	1.1	4.6	2.0	12.5	1.7	1							
Additive Element			RDE fine		RFS coarse		RDE fine		RFS coarse		RO					
Boron	D-6595	PPM	0		0		0				0					
Magnesium	D-6595	PPM	0		0		0				0					
Calcium	D-6595	PPM	19		23		13				32					
Barium	D-6595	PPM	0		0		6				0					
Phosphorus	D-6595	PPM	262		279		253				196					
Zinc	D-6595	PPM	362	146	366	28	198	16	462							
Additional Test			RDE fine		RFS coarse		RDE fine		RFS coarse		RO	U-Caution	U-Warning	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 **▲** : 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". TNO = The new oil, RO = Reference oil, OS = Oil Specification
 Accuracy of interpretation and recommendation are based on representatives sample and information supplied. No warranty is expressed or implied for this report.

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 R Site :
 Location :
 Test code : 89408

Unit ID : **TOSHIBA MC7**
 Unit Type : Hyd Syst Industrial
 Unit Make : TOSHIBA
 Unit Model : (not given)
 Oil type/ Viscosity : CASTROL HYSPIN AWS46
 Oil System Capacity : 2000 Liters

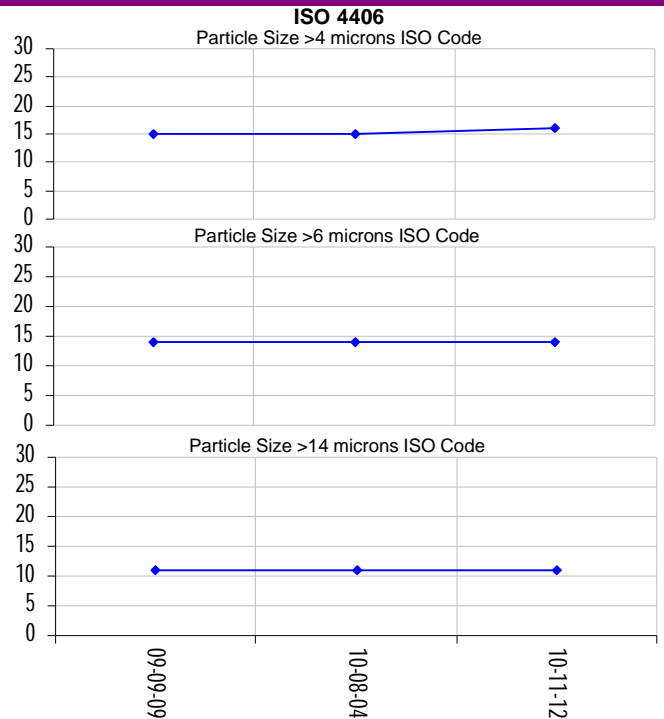
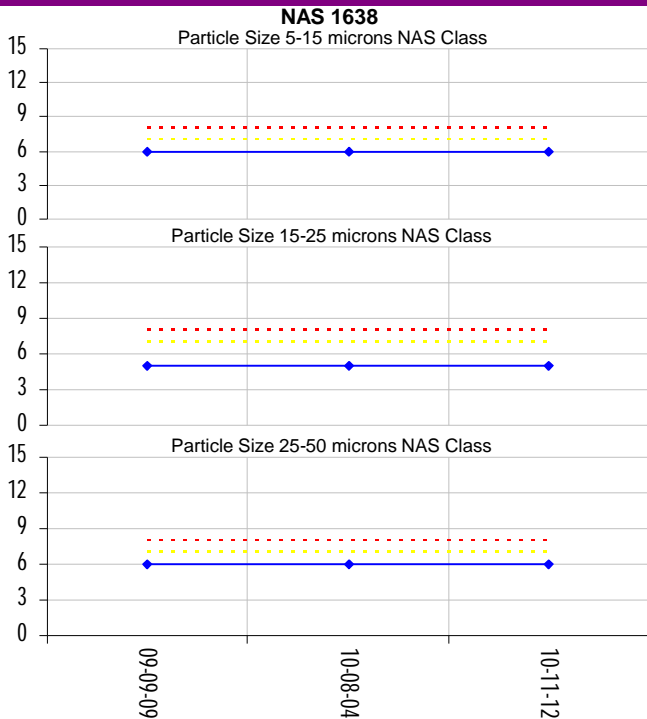
Overall Condition Rating

Wear Condition	NORMAL	NORMAL	NORMAL

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

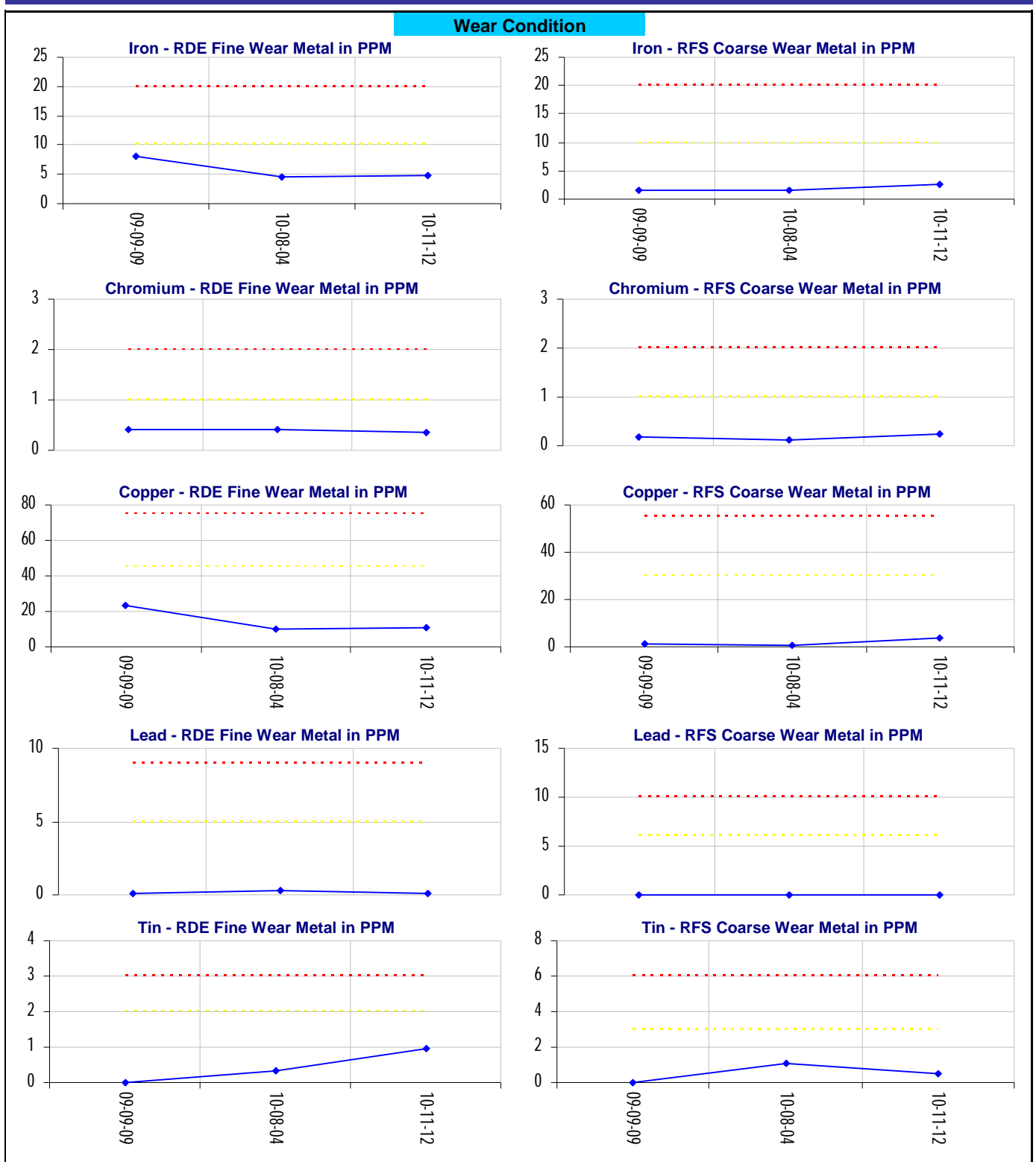
Particle count indicates oil cleanliness level is clean.

Lab ID	Current Sample		Previous Sample				Particle Count				
	148325		142162		120310		NAS 1638		ISO 4406		
Bottle ID	810384		106872		902170		BASELINE		Alarm Limit		
Date Sampled	12-Nov-10		04-Aug-10		09-Sep-09		Hyd Syst General Castrol Hyspin		AWS 46		
Oil Hours (Kms)	Not Given		Not Given		1000						
Unit Hours (Kms)	Not Given		Not Given		Not Given						
Oil Added (Liters)											
Filters Hours (Kms)											
Contamination											
Particle Count NAS 1638 System Standard											
Particle Size Range	No. of Particles / 100ml.	Class	No. of Particles / 100ml.	Class	No. of Particles / 100ml.	Class	Class	No. of Particles / 100ml.	Class	No. of Particles / 100ml.	Class
Particle Size 5-15 microns	12,600	6	10,600	6	10,200	6		>16000	7	>32000	8
Particle Size 15-25 microns	1,100	5	900	5	1,000	5		>2850	7	>5700	8
Particle Size 25-50 microns	300	6	300	6	200	6		>506	7	>1012	8
Particle Size 50-100 microns	<100	5	<100	5	<100	5					
Particle Size >100 microns	<100	3	<100	2	<100	2					
Particle Count ISO 4406:1999 System Standard											
Particle Size Range	No. of Particles / ml.	Class	No. of Particles / ml.	Class	No. of Particles / ml.	Class	Class	No. of Particles / ml.	Class	No. of Particles / ml.	Class
Particle Size > 4 microns	375	16	317	15	307	15					
Particle Size > 6 microns	105	14	89	14	86	14					
Particle Size > 14 microns	14	11	12	11	12	11					
ISO 4406 Class Rating	16/14/11		15/14/11		15/14/11						



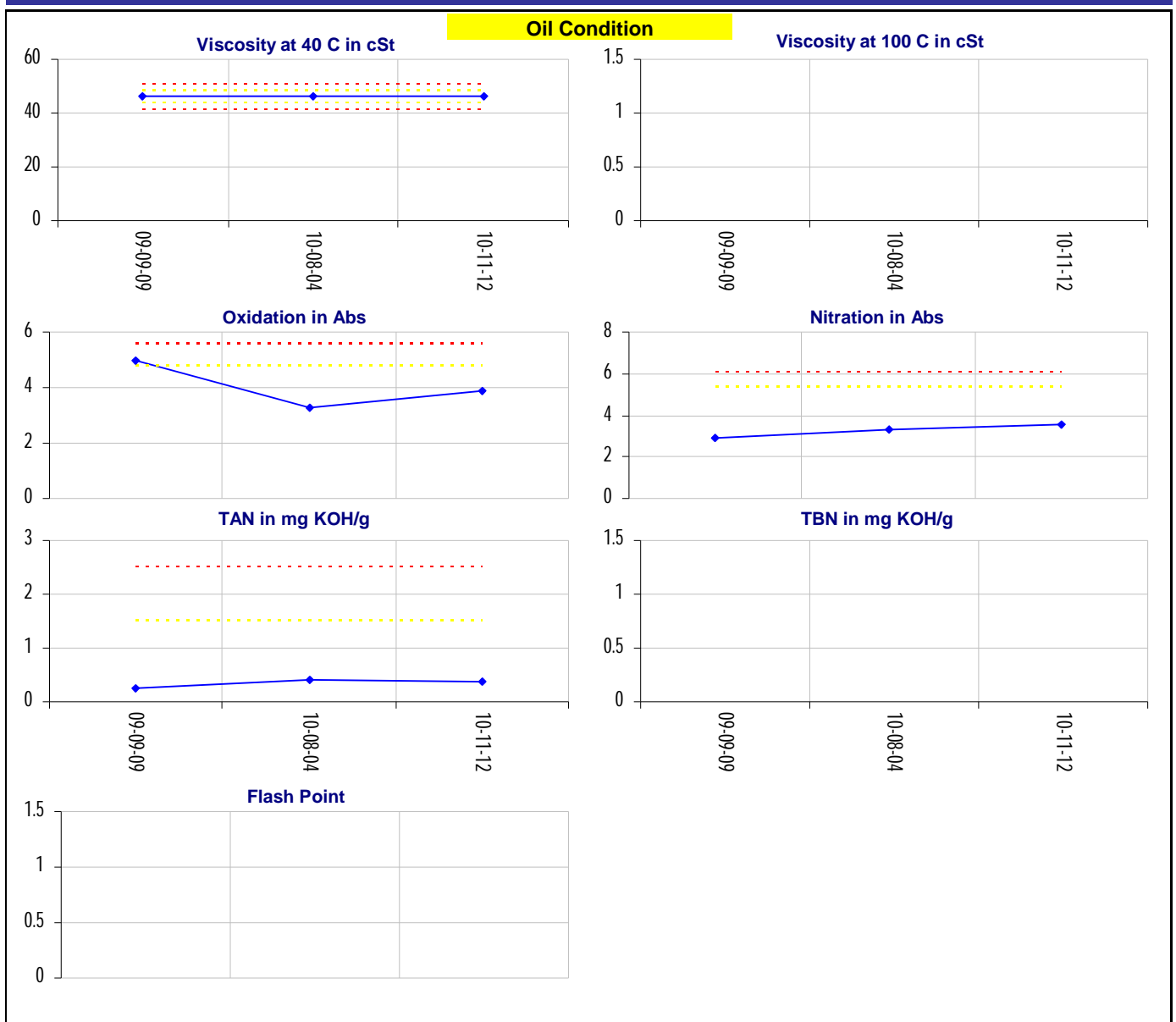
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