OIL REPORT

LAB NUMBER: D80885
REPORT DATE: 7/9/2009
CODE: 20/284

UNIT ID: C320 HULL 690
CLIENT ID: 20662
PAYMENT: CC: Visa

UNIT

EQUIP. MAKE/MODEL: Yanmar 3GM30F
FUEL TYPE: Diesel
ADDITIONAL INFO:

OIL TYPE & GRADE: Mobil Delvac 1300 15W/40
OIL USE INTERVAL: 91 Hours

CLIENT

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COMMENTS

KARL: Not much has changed in this current analysis from your Yanmar. Wear continues to look steady and even. This oil was in use for a lot shorter time, and as expected wear metals read lower. We did observe 1.0% fuel dilution, but this has happened before, and is not uncommon in marine engines, so we are not going to worry. What we did not find was any trace of cooling water contamination, which is good. The oil filter was doing a great job keeping the oil free of solids (see insolubles), and air filtration didn't look bad either (silicon). Nice report at 1,009 hours.

ELEMENTS IN PARTS PER MILLION

MI/HR on Oil	91	UNIT / LOCATION AVERAGES	173	91	106	48		UNIVERSAL AVERAGES
MI/HR on Unit	1,009		918	745	654	548		
Sample Date	07/01/09		07/01/08	11/12/07	11/27/06	11/01/05		
Make Up Oil Added	0 qts		1 qt	0 qts	0 qts			
ALUMINUM	3	5	6	6	7	4		5
CHROMIUM	2	2	3	2	2	2		3
IRON	16	23	29	21	30	19		30
COPPER	1	3	3	4	7	2		5
LEAD	2	4	3	7	4	2		4
TIN	0	1	1	0	1	1		1
MOLYBDENUM	51	93	80	60	199	76		39
NICKEL	0	0	0	0	0	0		0
MANGANESE	0	0	0	0	0	0		0
SILVER	0	0	0	0	0	0		0
TITANIUM	0	0	0	0	0	0		0
POTASSIUM	2	1	3	1	0	1		1
BORON	46	71	45	52	106	104		60
SILICON	4	5	6	6	5	5		10
SODIUM	3	2	2	2	2	3		6
CALCIUM	1554	2765	3424	2621	3147	3078		2787
MAGNESIUM	857	327	270	464	12	33		189
PHOSPHORUS	1005	1170	1279	1224	1116	1224		1053
ZINC	1300	1415	1505	1531	1335	1405		1237
BARIUM	0	0	0	0	0	0		0

PROPERTIES

		Values Should Be*					
SUS Viscosity @ 210°F	69.3	69-78	72.5	71.7	71.2	62.6	
cSt Viscosity @ 100°C	12.77	12.7-15.3	13.62	13.39	13.26	10.94	
Flashpoint in °F	**405**	>415	420	405	390	430	
Fuel %	1.0	<2.0	<0.5	1.0	1.5	<0.5	
Antifreeze %	0.0	0.0	0.0	0.0	0.0	0.0	
Water %	0.0	<0.1	0.0	0.0	0.0	0.0	
Insolubles %	0.3	<0.8	0.5	0.4	0.4	0.5	
TBN							
TAN							
ISO Code							

*** THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE**

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