

Machine Condition

Lubricant Condition

NORMAL
MARGINAL

Machine Name: CPF-P2

Machine ID: S/N 001

Analysis Report

Component Information

Machine Type: Hydraulic System Sump Size: Unknown
Lubricant: Renewable Lubricants/Bio-Ultimax 1000-32
Machine MFG: UNKNOWN
Machine MOD:

Sample Information

Received: 09/09/2016
Report: 09/09/2016
Sample No.: 6197 - 1 - 1 - 1
Analyst/Test: DR / PAT

Customer Information

MBARI
7700 Sandholdt Road
Moss Landing, CA 95039
Contact: Gene Massion

PROBLEMS

Excessive Particle Count

COMMENTS The particulate contamination exceeds our limits for a hydraulic system (19/17/16). High particulate contamination will lead to abrasive wear and damage internal components. Reducing particle levels will significantly extend component life.

CUSTOMER NOTES

Mach Hours: 100 *

Date Sampled	NEW OIL	9/8/2016				
Lab No		1771871				
Machine / Lube Cond.		N / M				
Lube Hours		100				
Machine Hours		100				

ELEMENTAL SPECTROSCOPY (ppm) ASTM D5185 Mod (-) indicates below detection limit

Wear Metals	Iron	-				
	Copper	-				
	Lead	-				
	Aluminum	-				
	Tin	-				
	Nickel	-				
	Chromium	-				
	Titanium	-				
	Vanadium	-				
Additives	Silver	-				
	Calcium	-				
	Magnesium	-				
	Phosphorus	539				
	Zinc	-				
Contaminants	Barium	-				
	Molybdenum	-				
	Silicon	4				
	Boron	-				
	Lithium	-				
	Sodium	-				
	Potassium	-				

FTIR SPECTROSCOPY (Indexing Numbers) ASTM E2412

Oxidation	164				
Nitration	2				
Anti Wear	24				
Other Fluid	80				

PARTICLE COUNT (particles per ml) ISO 4406:99

ISO Code	20/19/15				
>4 Micron	7974				
>6 Micron	3101				
>14 Micron	236				
>50 Micron	10				
>100 Micron	0				

VISCOSITY (centistokes) ASTM D445

Viscosity@40°C	33.5				
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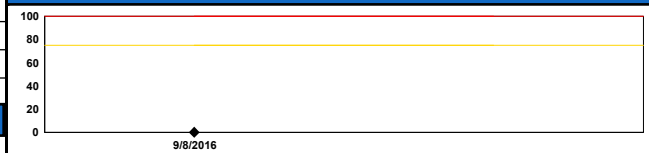
ACID NUMBER (mg KOH/g) ASTM D974

Acid Number	0.17				
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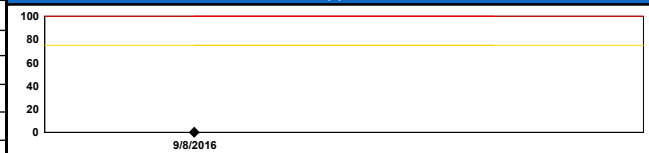
WATER (%) a-ASTM D6304A b-IWI-133 c-ASTM D6304C d-IWI-134* e-IWI-135* f-IWI-136* g-Crackle h-IWI-370*

Water	NEG (g)				
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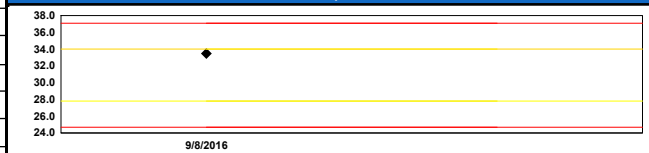
Iron



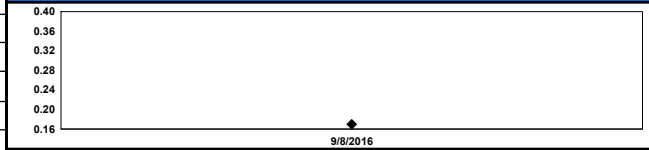
Copper



Viscosity @ 40C



Acid Number



Particle Count ISO Codes

