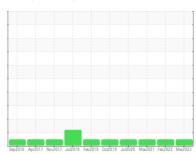


## **OIL ANALYSIS REPORT**

### Sample Rating Trend







# 10 Machine Id WTG-1004

Component **Hydraulic System** 

SHELL TELLUS 32 (300 LTR)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

#### **Fluid Condition**

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sep2016 Apr2017 Nov2017 Ju2016 Feb2019 Ox2019 Ju2020 Mar2021 Feb2022 Mar2023		
SAMPLE INFORMATION method limit/base current	history1	history2
Sample Number Client Info WC0804511 W	VC05504463	WC0547221
Sample Date Client Info 06 Mar 2023 04	4 Feb 2022	12 Mar 2021
Machine Age mths Client Info <b>0</b> 6	1	120
Oil Age mths Client Info 0 5		0
Oil Changed Client Info Not Changd N	lot Changd	Not Changd
Sample Status NORMAL N	IORMAL	NORMAL
WEAR METALS method limit/base current	history1	history2
PQ ASTM D8184 <b>16</b>	17	
Iron ppm ASTM D5185m >20 <b>3</b>	<1	2
<b>Chromium</b> ppm ASTM D5185m >20 <b>10</b>	6	5
Nickel ppm ASTM D5185m >20 <b>0</b>	0	0
Titanium ppm ASTM D5185m <b>0</b>	0	0
Silver ppm ASTM D5185m <b>0</b>	<1	0
Aluminum ppm ASTM D5185m >20 <1	0	0
<b>Lead</b> ppm ASTM D5185m >20 <b>0</b>	0	<1
Copper ppm ASTM D5185m >20 4	5	4
Tin ppm ASTM D5185m >20 <1	0	0
Antimony ppm ASTM D5185m		0
Vanadium ppm ASTM D5185m <b>0</b>	0	0
Cadmium ppm ASTM D5185m <b>0</b>	0	0
ADDITIVES method limit/base current	history1	history2
ADDITIVES motiod minibado carront		
Boron ppm ASTM D5185m <b>0</b>	0	0
-	0	0
Boron ppm ASTM D5185m <b>0</b>		
Boron ppm ASTM D5185m 0   Barium ppm ASTM D5185m 0	0	0
Boron ppm ASTM D5185m 0   Barium ppm ASTM D5185m 0   Molybdenum ppm ASTM D5185m <1   Manganese ppm ASTM D5185m <1   Magnesium ppm ASTM D5185m 11 19	0	0 <1
Boron ppm ASTM D5185m 0   Barium ppm ASTM D5185m 0   Molybdenum ppm ASTM D5185m <1   Manganese ppm ASTM D5185m <1	0 0 0	0 <1 0
Boron ppm ASTM D5185m 0   Barium ppm ASTM D5185m 0   Molybdenum ppm ASTM D5185m <1	0 0 0 4	0 <1 0 4
Boron ppm ASTM D5185m 0   Barium ppm ASTM D5185m 0   Molybdenum ppm ASTM D5185m <1   Manganese ppm ASTM D5185m <1   Magnesium ppm ASTM D5185m 11 19   Calcium ppm ASTM D5185m 35 18	0 0 0 4 22	0 <1 0 4 24
Boron ppm ASTM D5185m 0   Barium ppm ASTM D5185m 0   Molybdenum ppm ASTM D5185m <1   Manganese ppm ASTM D5185m <1   Magnesium ppm ASTM D5185m 11 19   Calcium ppm ASTM D5185m 35 18   Phosphorus ppm ASTM D5185m 259 280	0 0 0 4 22 297	0 <1 0 4 24 281
Boron ppm ASTM D5185m 0   Barium ppm ASTM D5185m 0   Molybdenum ppm ASTM D5185m <1   Manganese ppm ASTM D5185m <1   Magnesium ppm ASTM D5185m 11 19   Calcium ppm ASTM D5185m 35 18   Phosphorus ppm ASTM D5185m 259 280   Zinc ppm ASTM D5185m 277 285	0 0 0 4 22 297 276	0 <1 0 4 24 281 287
Boron ppm ASTM D5185m 0   Barium ppm ASTM D5185m 0   Molybdenum ppm ASTM D5185m <1   Manganese ppm ASTM D5185m <1   Magnesium ppm ASTM D5185m 11 19   Calcium ppm ASTM D5185m 35 18   Phosphorus ppm ASTM D5185m 259 280   Zinc ppm ASTM D5185m 277 285   Sulfur ppm ASTM D5185m 1865 3231	0 0 0 4 22 297 276 3152	0 <1 0 4 24 281 287 3254
Boron ppm ASTM D5185m 0   Barium ppm ASTM D5185m 0   Molybdenum ppm ASTM D5185m <1   Manganese ppm ASTM D5185m <1   Magnesium ppm ASTM D5185m 11 19   Calcium ppm ASTM D5185m 35 18   Phosphorus ppm ASTM D5185m 259 280   Zinc ppm ASTM D5185m 277 285   Sulfur ppm ASTM D5185m 1865 3231   CONTAMINANTS method limit/base current	0 0 0 4 22 297 276 3152 history1	0 <1 0 4 24 281 287 3254 history2
Boron ppm ASTM D5185m 0   Barium ppm ASTM D5185m 0   Molybdenum ppm ASTM D5185m <1   Manganese ppm ASTM D5185m <1   Magnesium ppm ASTM D5185m 11 19   Calcium ppm ASTM D5185m 259 280   Zinc ppm ASTM D5185m 277 285   Sulfur ppm ASTM D5185m 1865 3231   CONTAMINANTS method limit/base current   Silicon ppm ASTM D5185m >15 0   Sodium ppm ASTM D5185m >20 <1	0 0 0 4 22 297 276 3152 history1	0 <1 0 4 24 281 287 3254 history2 0
Boron ppm ASTM D5185m 0   Barium ppm ASTM D5185m 0   Molybdenum ppm ASTM D5185m <1   Manganese ppm ASTM D5185m <1   Magnesium ppm ASTM D5185m 11 19   Calcium ppm ASTM D5185m 259 280   Zinc ppm ASTM D5185m 277 285   Sulfur ppm ASTM D5185m 1865 3231   CONTAMINANTS method limit/base current   Silicon ppm ASTM D5185m >15 0   Sodium ppm ASTM D5185m 1	0 0 0 4 22 297 276 3152 history1 0	0 <1 0 4 24 281 287 3254 history2 0 0
Boron ppm ASTM D5185m 0   Barium ppm ASTM D5185m 0   Molybdenum ppm ASTM D5185m <1   Manganese ppm ASTM D5185m <1   Magnesium ppm ASTM D5185m 11 19   Calcium ppm ASTM D5185m 35 18   Phosphorus ppm ASTM D5185m 259 280   Zinc ppm ASTM D5185m 277 285   Sulfur ppm ASTM D5185m 1865 3231   CONTAMINANTS method limit/base current   Silicon ppm ASTM D5185m >15 0   Sodium ppm ASTM D5185m >20 <1	0 0 0 4 22 297 276 3152 history1 0 0	0 <1 0 4 24 281 287 3254 history2 0 0 <1
Boron ppm ASTM D5185m 0   Barium ppm ASTM D5185m 0   Molybdenum ppm ASTM D5185m <1   Manganese ppm ASTM D5185m <1   Magnesium ppm ASTM D5185m 11 19   Calcium ppm ASTM D5185m 35 18   Phosphorus ppm ASTM D5185m 259 280   Zinc ppm ASTM D5185m 277 285   Sulfur ppm ASTM D5185m 1865 3231   CONTAMINANTS method limit/base current   Silicon ppm ASTM D5185m >15 0   Sodium ppm ASTM D5185m >20 <1   Potassium ppm ASTM D5185m >20 <1   Water % ASTM D6304 >0.05 0.005	0 0 0 4 22 297 276 3152 history1 0 0 0	0 <1 0 4 24 281 287 3254 history2 0 0 <1 0.009
Boron ppm ASTM D5185m 0   Barium ppm ASTM D5185m 0   Molybdenum ppm ASTM D5185m <1   Manganese ppm ASTM D5185m <1   Magnesium ppm ASTM D5185m 11 19   Calcium ppm ASTM D5185m 259 280   Phosphorus ppm ASTM D5185m 277 285   Sulfur ppm ASTM D5185m 1865 3231   CONTAMINANTS method limit/base current   Silicon ppm ASTM D5185m >15 0   Sodium ppm ASTM D5185m >20 <1   Potassium ppm ASTM D6304 >0.05 0.005   ppm Water ppm ASTM D6304 >500 59.3	0 0 0 4 22 297 276 3152 history1 0 0 0 0.006 64.5	0 <1 0 4 24 281 287 3254 history2 0 0 <1 0.009 94.5
Boron ppm ASTM D5185m 0   Barium ppm ASTM D5185m 0   Molybdenum ppm ASTM D5185m <1   Manganese ppm ASTM D5185m <1   Magnesium ppm ASTM D5185m 11 19   Calcium ppm ASTM D5185m 35 18   Phosphorus ppm ASTM D5185m 259 280   Zinc ppm ASTM D5185m 277 285   Sulfur ppm ASTM D5185m 1865 3231   CONTAMINANTS method limit/base current   Silicon ppm ASTM D5185m >15 0   Sodium ppm ASTM D5185m >20 <1   Potassium ppm ASTM D6304 >0.05 0.005   ppm Water ppm ASTM D6304 >500 59.3   FLUID CLEANLINESS method limit/base current	0 0 0 4 22 297 276 3152 history1 0 0 0.006 64.5	0 <1 0 4 24 281 287 3254 history2 0 0 <1 0.009 94.5 history2
Boron ppm ASTM D5185m 0   Barium ppm ASTM D5185m 0   Molybdenum ppm ASTM D5185m <1   Manganese ppm ASTM D5185m <1   Magnesium ppm ASTM D5185m 11 19   Calcium ppm ASTM D5185m 35 18   Phosphorus ppm ASTM D5185m 259 280   Zinc ppm ASTM D5185m 277 285   Sulfur ppm ASTM D5185m 1865 3231   CONTAMINANTS method limit/base current   Silicon ppm ASTM D5185m >15 0   Sodium ppm ASTM D5185m >20 <1   Water % ASTM D6304 >0.05 0.005   ppm Water ppm ASTM D6304 >500 59.3   FLUID CLEANLINESS method limit/base current   Particles >4µm ASTM D7647	0 0 0 4 22 297 276 3152 history1 0 0 0.006 64.5 history1 1062	0 <1 0 4 24 281 287 3254 history2 0 0 <1 0.009 94.5 history2 2002
Boron ppm ASTM D5185m 0   Barium ppm ASTM D5185m 0   Molybdenum ppm ASTM D5185m <1   Manganese ppm ASTM D5185m <1   Magnesium ppm ASTM D5185m 11 19   Calcium ppm ASTM D5185m 35 18   Phosphorus ppm ASTM D5185m 259 280   Zinc ppm ASTM D5185m 277 285   Sulfur ppm ASTM D5185m 1865 3231   CONTAMINANTS method limit/base current   Silicon ppm ASTM D5185m >15 0   Sodium ppm ASTM D5185m >20 <1   Vater % ASTM D6304 >0.05 0.005   ppm Water ppm ASTM D6304 >500 59.3   FLUID CLEANLINESS method limit/base current   Particles >4µm ASTM D7647	0 0 0 4 22 297 276 3152 history1 0 0 0 0.006 64.5 history1 1062 259	0 <1 0 4 24 281 287 3254 history2 0 0 <1 0.009 94.5 history2 2002 439
Boron ppm ASTM D5185m 0   Barium ppm ASTM D5185m 0   Molybdenum ppm ASTM D5185m <1   Manganese ppm ASTM D5185m <1   Magnesium ppm ASTM D5185m 11 19   Calcium ppm ASTM D5185m 35 18   Phosphorus ppm ASTM D5185m 259 280   Zinc ppm ASTM D5185m 277 285   Sulfur ppm ASTM D5185m 1865 3231   CONTAMINANTS method limit/base current   Silicon ppm ASTM D5185m >15 0   Sodium ppm ASTM D5185m >15 0   Sodium ppm ASTM D5185m >20 <1   Water % ASTM D5185m >20 <1   Water % ASTM D6304 >500 59.3   FLUID CLEANLINESS m	0 0 0 4 22 297 276 3152 history1 0 0 0 0.006 64.5 history1 1062 259 18	0 <1 0 4 24 281 287 3254 history2 0 <1 0.009 94.5 history2 2002 439 54
Boron ppm ASTM D5185m 0   Barium ppm ASTM D5185m 0   Molybdenum ppm ASTM D5185m <1   Manganese ppm ASTM D5185m <1   Magnesium ppm ASTM D5185m 11 19   Calcium ppm ASTM D5185m 35 18   Phosphorus ppm ASTM D5185m 259 280   Zinc ppm ASTM D5185m 277 285   Sulfur ppm ASTM D5185m 1865 3231   CONTAMINANTS method limit/base current   Silicon ppm ASTM D5185m >15 0   Sodium ppm ASTM D5185m >15 0   Sodium ppm ASTM D5185m >20 <1   Water % ASTM D6304 >0.05 0.005   ppm Water ppm ASTM D6304 >500 59.3   FLUID CLEANLINESS method lim	0 0 0 4 22 297 276 3152 history1 0 0 0 0.006 64.5 history1 1062 259 18 3	0 <1 0 4 24 281 287 3254 history2 0 0 <1 0.009 94.5 history2 2002 439 54 18



### OIL ANALYSIS REPORT







Sample No. Lab Number **Unique Number** 

: WC0804511 : 05857905

: 10492370

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Received

Diagnosed Diagnostician Test Package : IND 2 (Additional Tests: KF, PQ)

: 26 May 2023 : 30 May 2023 : Jonathan Hester

Contact: SANTOS DEL CID

sdelcid@dencmi.com

FRANCISCO MORAZAN, ZZ

T: x: F: x:

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) HN